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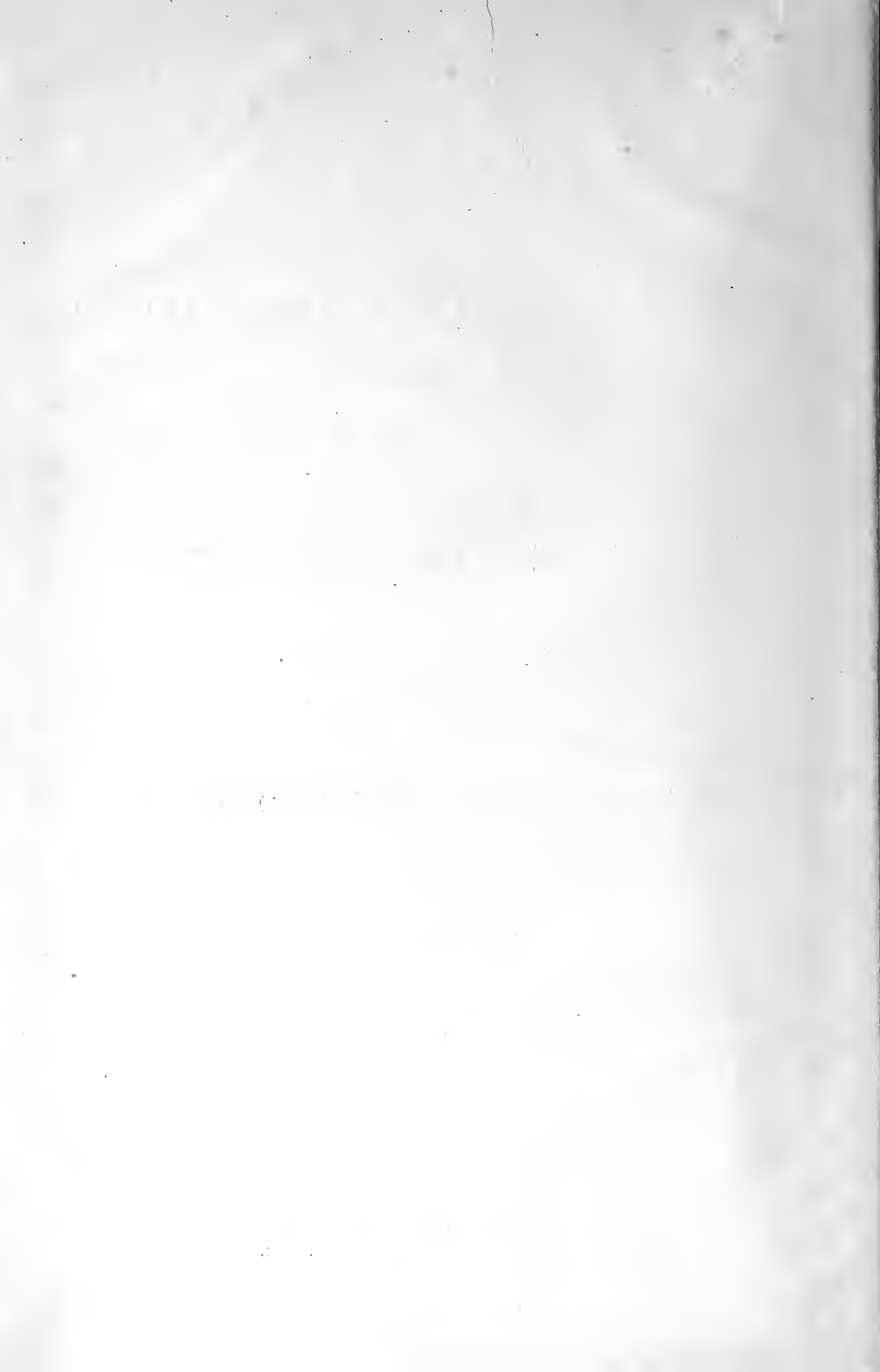
FOR THE

FIRST SESSION OF THE FIFTY-SECOND CONGRESS.

1891-'92.

VOLUME 4.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1892.



ANNUAL REPORT

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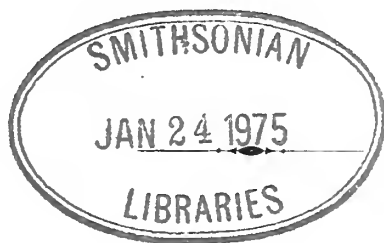
1945

OF THE

COMMISSIONER OF PATENTS

FOR

THE YEAR 1891.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1892.

REPORT
OF THE
COMMISSIONER OF PATENTS
TO CONGRESS,
FOR THE YEAR ENDING DECEMBER 31, 1891.

Laid before the Senate by the Vice-President February 1, 1892, referred to the Committee on Patents, and ordered to be printed.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 30, 1892.

*To the Senate and House of Representatives of the
United States of America in Congress assembled:*

This report is rendered in compliance with the following section of the Revised Statutes:

Sec. 494. The Commissioner of Patents shall lay before Congress in the month of January, annually, a report giving a detailed statement of all moneys received for patents, for copies of records or drawings, or from any other source whatever; a detailed statement of all expenditures for contingent and miscellaneous expenses; a list of all patents which were granted during the preceding year, designating under proper heads the subjects of such patents; an alphabetical list of all the patentees, with their places of residence; a list of all patents which have been extended during the year, and such other information of the condition of the Patent Office as may be useful to Congress or the public.

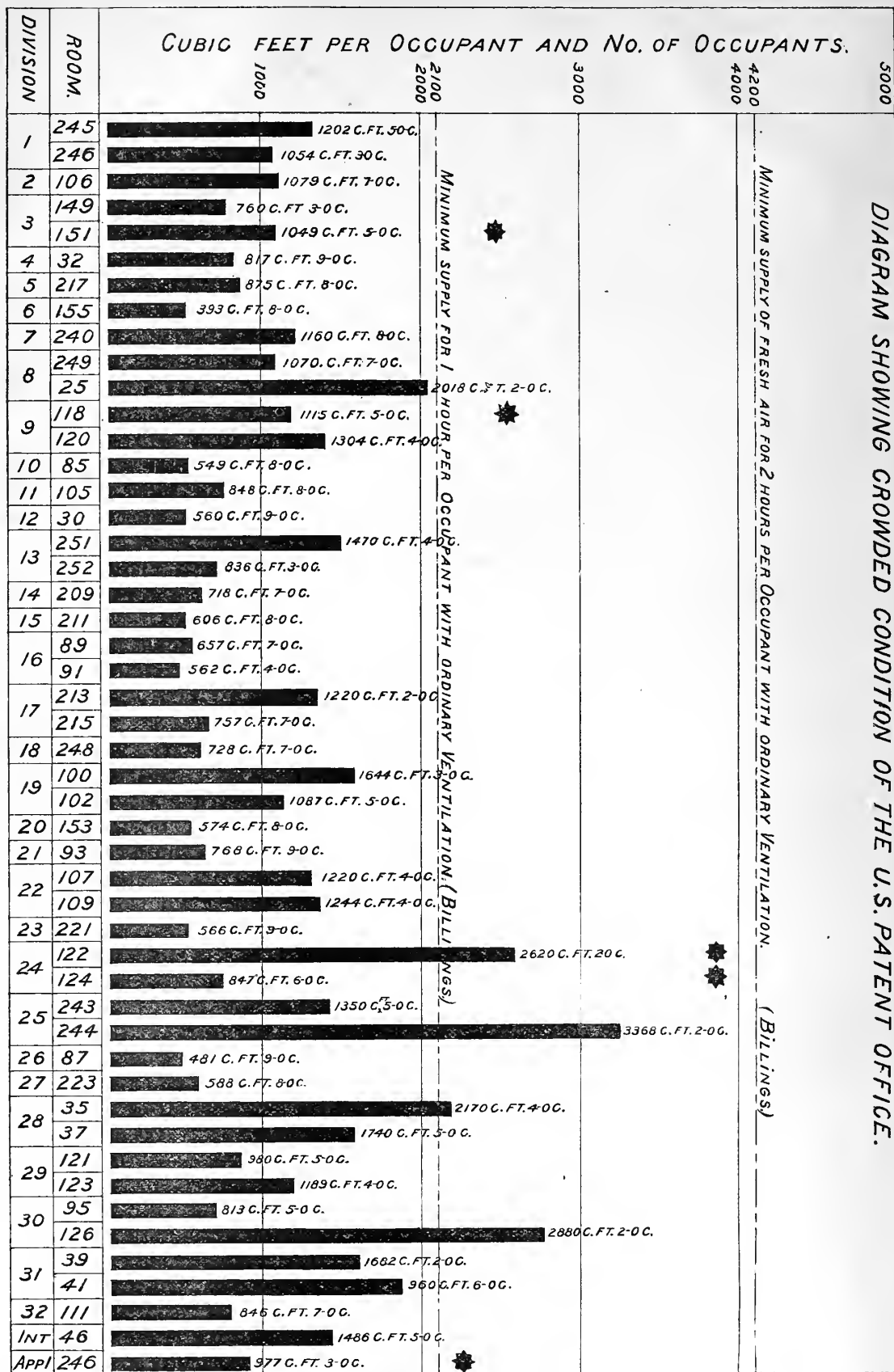
The detailed statements, tables, and lists above specified will be found at the end of this report, following what is intended to be such "information of the condition of the Patent Office as may be useful to Congress or the public."

MORE ROOM NEEDED.

The most pressing and urgent need of the Patent Office is more room. Every division of the Office needs it and calls for it daily. From week to week ingenuity is taxed to the utmost to find space wherein to dispose the printed copies of the patents as they are issued. More than six hundred thousand of these printed copies are sold each year, bringing in an income of more than sixty thousand dollars, and more than six hundred thousand other copies are selected each year for the use of the Examiners and the various departments of Government. They are now disposed in separate and disconnected parcels upon five different floors, partly under stairways, and in every sort of an out-of-the-way place that a great building can furnish. The selection of two copies which stand next to each other serially not rarely takes the person who is selecting them from the lowest of these five floors to the highest and from one ex-

tremity of the building to the other. Where these weekly issues of copies are to be put in the near future, no one at present can possibly tell.

As regards the rooms occupied by the Examiners, the need is almost as urgent. These rooms, omitting two store-rooms and two hearing-rooms, are forty-eight in number. Their combined capacity in cubic feet, deducting the space occupied by cases and the like, is 247,441 feet. The number of occupants is 270. The cubic feet of space per occupant is therefore 916 feet. Dr. John S. Billings, in his work entitled "The Principles of Ventilation and Heating," gives 4,200 cubic feet as necessary for each person in a room with "ordinary ventilation" for two consecutive hours of occupancy. These Examiners' rooms are occupied seven consecutive hours each day, with the exception of half an hour for luncheon. These rooms hardly attain what might be called "ordinary ventilation," for all of them are dependent upon the doors and windows for fresh air, except that one of them has a small ventilating-register, which cannot be used, and five of them have grate-fires, which to a degree assist the ventilation. The heating is attained in some rooms by the steam-pipes, in others by hot-air registers, and in still others by stoves. It is the rule rather than the exception in these rooms that the floor-space is so occupied by desks and cases for papers that the occupants move about in them through tortuous lanes. Cases of drawings belonging to the patented files are necessarily located in large number along the sides of the corridors, where the public passes to and fro. This is unsafe and unsightly. This state of affairs not only puts unnecessary discomfort upon the Examiners, but it also unfavorably affects their health and, to a degree that is more than noticeable, prevents them from doing work to their full capacity. The accompanying diagram has been prepared in order to show at a single glance the degree to which these rooms are crowded beyond the ordinary requirements for ventilation:



MORE FORCE NEEDED.

Within the latter half of the year just past, ten persons have been added to the examining corps and four persons to the clerical force of the Patent Office under provision made for that purpose by the last Congress, and that addition is a most grateful one. But it is not all that is needed. The experience of the last few months shows that the present examining corps may possibly be able to keep the work from falling behind to a greater degree than it is at present, although that is by no means sure. However that may be, it is certain that a substantial addition ought to be made to the examining corps and the clerical force of the Patent Office, not only to bring the work of examining applications for patents up to date and readily keep it there, but also to provide for the needs of the immediate future. At the close of the calendar year 1891 the Patent Office had issued 476,271 patents, constituting a vast field, some particular line in which has to be explored from first to last in connection with every one of the forty thousand applications for patents which are made each year. Twenty-five thousand new patents are added to this vast field of exploration yearly. An intelligent and practically perfect classification of this great field of patents is necessary. Each patent should be digested and the classified digests should be printed, so that each Examiner may always have before him the complete digests of every class of inventions in which an improvement presented in an application for patent can possibly be found. These classifications necessarily overlap each other in such a way that each Examiner, in order to do his work properly, needs to have before him, not only the digests which pertain purely and simply to his own classes of work, but also those which pertain to cognate and overlapping classes, in order that his search may be thorough and exhaustive. There are thirty-two examining divisions in the Office, and I recommend that one Examiner, of the rank of fourth assistant, be added to each of these divisions for the purposes pointed out.

IMPORTANCE OF THE OFFICE WORK.

It is believed that the patent system and the Patent Office deserve generous treatment by Congress, and that it is of the highest importance to the material interests of the whole country that the Office should have the completest facilities for the transaction of the public business intrusted to it. It is a fact, and it ought not to be an unfortunate fact, that there is nothing spectacular or of ordinary political interest about the work of the Patent Office. It stands in close touch with the vast business interests of the country and, in unison with them, performs its great burden of work quietly. But the importance of its work is in inverse ratio to its quiet character. That importance is not likely to be overrated. Thoughtful students of our national life have not rarely said that no other feature of our institutions has played so large a part in the development of the splendid material prosperity of our nation. The proposition is believed to be a reasonable one. The vast majority of our great manufacturing industries were originally based upon inventions recorded in the United States Patent

Office. The following are a few and only a few of the American inventors whose reputation has become national and whose improvements have formed the foundation of manufacturing industries of great magnitude: John Fitch, Robert Fulton, and James Rumsey as to steamboats; Eli Whitney as to the cotton-gin; Oliver Evans as to milling machinery; Amos Whittemore, Erastus B. Bigelow, and Barton H. Jenks as to looms; Eli Terry, Ira Ives, Noble Jerome, and Chauncey Jerome as to clocks; Peter Lorillard as to tobacco-making; E. I. Dupont de Nemours as to gunpowder; Jesse Reed as to nail-making; William Edwards as to leather-making; Jethro Wood as to iron plows; Thomas Blanchard as to lathes for turning irregular forms; Asa Spencer as to geometrical lathes; Richard M. Hoe, Isaac Adams, Stephen P. Ruggles, Andrew Campbell, Moses S. Beach, and G. P. Gordon as to printing-presses; Samuel W. Collins and Elisha K. Root as to ax-making; Oliver Ames as to shovels; William Woodworth as to wood-working; Thaddeus Fairbanks as to scales; John J. Howe and Chauncey O. Crosby as to pin-making; Eliphalet Nott and Jordan L. Mott as to stoves; Robert L. and Alexander Stuart as to sugar-refining; Matthew W. Baldwin and Ross Winans as to locomotives; Cyrus H. McCormick and William P. Ketchum as to mowing and reaping; Samuel Colt, Ethan Allen, Christian Sharps, Edmund Maynard, Rollin White, Christopher M. Spencer, Horace Smith, and Daniel P. Wesson as to fire-arms; Alonzo D. Phillips as to friction-matches; Henry A. Wells as to hat-making; Charles Good-year, Nathaniel Hayward, and Horace H. Day as to india-rubber; John Ericsson as to naval construction and hot-air engines; Elias Howe, Jr., Allen B. Wilson, Isaac Singer, J. E. A. Gibbs, William O. Grover, and William E. Baker as to sewing-machines; S. F. B. Morse, Royal E. House, and David E. Hughes as to telegraphs; Henry B. Tatham as to lead pipe; Cullen Whipple as to wood-screws; Jonas Chickering and Henry Steinway, Jr., as to pianos; Henry Burden as to horseshoe machinery; Linus Yale as to locks; John A. Roebling as to cables, chains, and bridges; George H. Corliss as to steam-engines; Asa Whitney and Nathan Washburn as to car-wheels; Gail Borden, Jr., as to condensed milk; William and Coleman Sellers as to shafting and iron-working; Henry Disston as to saws; James J. Mapes as to fertilizers; John Stephenson as to horse-cars; R. P. Parrott as to cannon; Richard J. Gatling as to Gatling guns.

These men and thousands of others like them enjoyed for a little time the ownership of the property they produced by their own brains and their own hands, out of materials belonging to no one else, and that property of vast and peculiar value has been given to the American people forever. Even during the few years that they enjoyed the ownership of the property, which was theirs by the best and highest of all possible titles—that of creation—they realized but a small fraction of the benefits flowing from their improvements. Even during that limited period the lion's share inured to the public benefit in added comfort and lowered prices.

The patent law does not exist for the benefit of inventors. It exists for the benefit of the public. The

enlightened public selfishness which called that act into being was expressed in the organic law—in the Constitution of the United States—when Congress was therein authorized to secure “for limited times to authors and inventors the exclusive right to their respective writings and discoveries,” in order “to promote the progress of science and useful arts.” The magnificent degree in which the progress of science and the useful arts has been promoted in America by wise patent laws ought to be clear to the dullest comprehension.

The benefits of the patent system are by no means confined to the manufacturing industries. It may well be doubted whether the larger benefits do not flow to that portion of our people who seem to have the least connection with those industries. It was Whitney's improvement in the cotton-gin which made possible the marvelous cotton culture of the South, producing thirty-six hundred and twenty-two millions pounds of the staple in 1889, which without the school-master's invention would have required the labor of three millions of men for a year simply to clean it.

The settlement and cultivation of the great West have been made possible only by patented improvements in agriculture and in transportation. Under the old order of things it would have required the labor of all the men and boys in the United States, some twenty-four millions in number, to plant and till and harvest the American corn crop of 1889, it being more than two thousand millions of bushels, raised upon seventy-eight millions acres of land, leaving to take care of itself meanwhile four hundred and ninety millions bushels of wheat and seven hundred and fifty millions bushels of oats produced in that same year. And under that old order of things the value of each bushel of this grain would have been consumed in transporting it three hundred miles, while now it is carried across a continent and across an ocean and still sold at a living profit.

There is no class or condition of men in the whole country which has not felt the blessings of American inventive genius, fostered into its fullest flower by wise and kindly patent laws.

That same inventive genius has greatly enlarged the employment of manual labor and enhanced its wage. Every calculation to the contrary, based upon doing a modern volume of business by the number of men who would have done it under the old order of things, has the fatal defect of forgetting the inevitable relation between lessened price and increased consumption. The man who, at the meeting of the American Social Science Association in 1878, calculated that on a single great modern daily newspaper a few men, using modern machinery, had practically displaced more than five thousand printers, using the press of Benjamin Franklin, omitted to note that the wages of this army would have so raised the cost of the journal as to annihilate its circulation and destroy the enterprise. It is an absolute condition of the doing of any modern volume of business that it shall be done in the way it is done.

No greater labor-saving device than the sewing-machine was ever invented, or is ever likely to be; but its

introduction into common use greatly enlarged the field of manual labor. In 1838 Walter Hunt had all but perfected a practical sewing-machine; but upon the protest of his wife as to its effect upon tailors and sewing-women he gave his invention over to darkness and oblivion. Nevertheless, the sewing-machine was made a common thing between 1850 and 1870—a period of time in our national life more important and interesting in most particulars than any other similar period. In 1850 there were fifty-two thousand tailors in a population of twenty-three millions, or one tailor to four hundred and forty-two inhabitants. In 1870 there were one hundred and six thousand tailors in a population of thirty-eight millions, or one tailor to three hundred and fifty-eight inhabitants. Population in these two decades increased sixty-five per cent.; but the number of tailors increased more than one hundred per cent. Meanwhile the manufacture and sale of sewing-machines had given profitable employment to at least forty thousand persons, and millions of sewing-machines had gone into use in factories and families, effecting a saving well-nigh measureless in that labor which is performed with the needle.

The locomotive is another immense labor-saver, which first became common in America in the period between 1850 and 1870, and while in those two decades the population increased sixty-five per cent. the makers of common carriages and wagons increased in number more than two hundred per cent.

Among English-speaking peoples never since they crept out of the twilight of the Middle Ages has the beneficial effect of wise patent laws been seriously questioned. It is to be hoped that the doing of such a thing has not been reserved for people living in the American Republic and in the closing years of the nineteenth century.

“A patent for a useful invention is not, under the laws of the United States, a monopoly in the old sense of the common law.” (*Atty. Gen. v. Rumford Chemical Works*, 32 Fed. Rep., 608.) It is of the essence of a monopoly that it takes away from the public some right it had before. A patent can never do that. It can only apply to some *new* thing that an inventor has created, and if during the few years that we permit the creator to enjoy his own we are not willing to pay for sharing that improvement with him it is always our right to use the thing we had before.

Perhaps no idea was ever so much opposed to reason and to evidence as the notion that inventors are not actuated by the motives common to the human race, and that if the incentive to invention be destroyed inventors will continue to invent from motives of pure benevolence. A British parliamentary commission took some evidence a few years ago upon this point. A host of inventors came before them, with the inventor of Bessemer steel at their head, and made it wholly evident that without the incentive and protection of a patent law no inventor will invent and no capital will take the hazard of investment in an untried thing. It is wholly within our power to kill the goose that lays the golden egg; but the laying will stop with the killing.

NO RADICAL DEPARTURE ASKED.

All that is necessary to insure to the Patent Office

the room and the force it needs is a continuance of the policy which originally enacted the patent law and which authorized the existence of the Patent Office building. The entire structure in which the Patent Office now does its work was planned as a Patent Office and was ordered to be built for the Patent Office by act approved July 4, 1836. The entire structure, although wholly planned, was not wholly built at the first, because the Patent Office did not then need so much room; but the growth of the patent system was foreseen and judiciously provided for in the original plan of the building. Hundreds of thousands of dollars taken directly from the patent fund have been used in the construction of the Patent Office building. More than four millions of dollars paid by inventors are now lying in the United States Treasury and unapplied for their benefit; and this surplus increases year by year. These facts seem to constitute a reasonable claim on the part of the Patent Office to the use of all the room in this building required for its needs and the employment of the necessary force to transact its business properly and promptly. It has been said that—

when the inventor gets his patent he has received the consideration for his money, and the transaction is at an end. The ground assumed by those who claim the Patent Office as the property of inventors necessarily involves the proposition that they are entitled not only to their franchises, but also the price which was paid for them. Upon the same principle the purchasers of public lands might claim a right to control the appropriation of money which they paid for them, or the consumers of dutiable goods the privilege of regulating the expenditure of the revenue of customs.

Such a saying is believed to be based upon clear and fundamental errors. The Government does not charge the patentee the thirty-five dollars which he pays in connection with the procurement of his patent as a consideration for the franchise. It is altogether too small in amount to have any such relation to the franchise. It is true that a patent is a contract between the inventor and the public; but the mutual considerations are something entirely different from those expressed in the foregoing quotation.

This grant is not the exercise of any prerogative to confer upon one or more of the subjects of a government the exclusive property in that which would otherwise belong to the common right. It more nearly resembles a contract, which, under the authority conferred by the Constitution, Congress authorizes to be entered into between the Government and the inventor, securing to him, for a limited time, the exclusive enjoyment of the practice of his invention, in consideration of the disclosure of his secret to the public, and his relinquishment of his invention to the public at the end of the term. (*Atty. Gen. v. Rumford Chemical Works*, 32 Fed. Rep., 608.)

The thirty-five dollars are no part of the consideration moving from the inventor; they are demanded and paid for the purpose of defraying the expenses of the Government in passing upon the application and keeping a record of the transaction. It is believed that money paid for patent fees ought not, under the Constitution and laws, to be treated as money raised by way of taxation. Those parts of the Constitution which authorize the raising of money by taxation are well defined and generally understood, the chief of them being the "power to lay and collect taxes, duties, imposts, and excises." The requirement of fees from patentees is made under quite another clause of the Constitution—to wit, that which says that "Congress shall have power * * * to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries," and this points

to the conclusion that in the forum of constitutional intent and good morals, moneys paid into the Treasury by inventors should be applied for the benefit of the patent system, or, at least, that so much thereof should be so applied as is requisite to the full transaction of the public business connected with that system.

DESIRED LEGISLATION.

The following amendments to the patent law and the trade-mark law are recommended:

First. An amendment to the effect that no improvement shall be patentable which has been, for more than two years before application for patent thereon, disclosed in any patent or printed publication issued in this country. Under existing law two years of public use in this country creates such a bar, and, on principle, two years of disclosure in a patent or printed publication should be put upon the same footing.

Second. An amendment to the effect that a patent shall not expire with the expiration of a prior foreign patent for the same invention. The existing law upon this subject has been found to work confusion, uncertainty, and fraud.

Third. An amendment compelling an applicant to take action upon his application at least once in every six months, in lieu of once in two years, as at present; and a further provision that a patent shall in no case live for more than twenty years from the date of the first application therefor. The adoption of such amendments would put an end to keeping applications for patents pending many years prior to issue.

Fourth. An amendment requiring patent licenses to be recorded, the same as assignments and grants. Licenses are often so drawn as to convey away the whole substance of a patent, and yet, under existing law, they do not need to be recorded. The same reason that calls for the recording of assignments and grants calls equally for the recording of licenses.

Fifth. An amendment putting aliens upon the same footing as citizens as to the filing of caveats. In all other respects than this our patent law makes no distinction between citizens and aliens, and the retention of this distinction in the statute is clearly an oversight.

Sixth. An amendment abolishing interference contests in the Patent Office and relegating them to the courts. These interferences are, to all intents and purposes, law-suits between two or more parties who are seeking to patent the same invention. The Patent Office has not the power to compel witnesses to behave properly in these matters. It has not the tribunals adequate for the trial of these causes, and they entail a grievous burden of work upon the Office, which, distributed among the different courts, would not be felt as a sensible addition to their labors. Moreover, a court adjudication of one of these cases would be of great practical value to an interference contestant, which value is wholly lacking in an adjudication given by the Patent Office, and the cost of the litigation in a court could not be greater than it is at present.

Seventh. An amendment of the patent law requiring a fee of ten dollars for every appeal or petition taken from a Primary Examiner directly to the Commissioner of Patents. The present tendency is to

needless multiplication of these so-called interlocutory appeals upon pretexts many of which are frivolous.

Eighth. An amendment providing that no damages or profits shall be recovered in a suit for infringement, except such as accrue within the six years last preceding the bringing of the suit. The reason for the enactment of this statute of limitations is apparent without detailed explanation.

Ninth. A statute providing that an injunction issued by a court against the transfer of a patent may be registered in the Patent Office and thereupon be constructive notice to all the world. It is believed that the propriety of such a provision is obvious.

Tenth. A statute giving courts of equitable jurisdiction power to pass the title to Letters Patent in a proper case without any action on the part of the defendant. Now the courts must act in such a case by compelling the defendant to sign the necessary conveyance, and a defendant can readily defy the court by putting himself outside of its territorial jurisdiction.

Eleventh. A provision in the law to the effect that the Commissioner of Patents may refund to the payer money paid into the Patent Office by mistake. This is the present practice of the Office—a practice founded in equity; but it ought to have the express sanction of law.

Twelfth. A permanent provision in the statute defining the duties of the Assistant Commissioner of Patents.

Thirteenth. An amendment to the trade-mark law permitting registry of trade-marks which are used in commerce between the States, the permission now being restricted to trade-marks used in foreign commerce or in commerce with the Indian tribes.

MISCELLANEOUS MATTERS.

The need of a laboratory for the Office has been specified in former annual reports; that need continues and grows.

The statute makes the salary of the Chief Clerk \$2,500. In the total of amounts in the last appropriation act that sum was provided for and appropriated; but in engrossing the bill an error was made, which is apparent. The amount practically appropriated was only \$2,250. It is hoped that the error will be corrected and the deficiency made good.

An increase of the salary of the Assistant Commissioner and of the salaries of the Examiners-in-Chief, the Principal Examiners, and the Assistant Examiners has been recommended in former annual reports; such increase is again recommended; the present salaries were fixed many years ago, under greatly different conditions as to cost of living, and are now inadequate, while the character of the force and of the work it does has greatly improved.

The seventy-six employes of the Office classed as "copyists," forming a part of the classified service, receive each a salary of \$720 per annum; as the same class of employes receives \$900 or more in other bureaus and departments, copyists are transferred away from this Bureau with such frequency as to seriously interfere with the Office work. In order to treat these employes as other employes of a similar class are treated, their salaries should be raised to \$900 per annum.

THE FIRST CENTURY OF THE PATENT SYSTEM.

In addition to the usual statistical information there are added to this report two tables and two diagrams (See Appendices A, B, C, and D) illustrative of the growth of patent-granting from 1790 to 1890, the first century of the existence of the American patent system. The first table gives the patents granted in that period by years and by States to our citizens. The second table does the same for patents granted to citizens of foreign countries. The first diagram has one line illustrating graphically the growth of patent-granting during the century, along with another line denoting the increase of population in the same period. The second diagram has one line illustrating the growth per capita of patent-granting as a whole during the century, and other lines illustrating the growth per capita of patent-granting in the States, by groups of States. These tables and diagrams can hardly fail to furnish interesting and valuable material for study. There is also a list of patentees and their improvements, by years, prior to A. D. 1800. (See Appendix E.)

BUSINESS OF THE PATENT OFFICE.

The following statements exhibit in detail the business received and transacted by the Office during the last calendar year. The total number of applications received, including mechanical applications, designs, and reissues, and excluding applications for the registration of trade-marks and labels, was 40,552. The total number of patents granted, including mechanical patents, designs, and reissues, was 23,244. The total number of registrations was 1,899. The total receipts were \$1,271,285.78; total expenditures, \$1,139,713.35, leaving a surplus of \$131,572.43 to be turned into the Treasury of the United States; making a total balance in the Treasury to the credit of the patent fund of \$4,004,317.67.

RECEIPTS.

Detailed statement of all moneys received for patents, for copies of records or drawings, or from any source whatever.

Applications:	
Cash received.....	\$1,098,538 00
Cash refunded.....	4,724 00
Net cash.....	1,093,814 00
Certificates of deposit.....	47,408 40
Total cash and certificates.....	1,141,222 40
Copies:	
Cash received.....	99,157 78
Cash refunded.....	5,450 87
Net cash.....	93,706 91
Certificates of deposit.....	581 35
Total cash and certificates.....	94,288 26
Recording assignments:	
Cash received.....	22,332 86
Cash refunded.....	1,268 30
Net cash.....	21,064 56
Certificates of deposit.....	208 00
Total cash and certificates.....	21,272 56
Subscription to Official Gazette:	
Cash received.....	13,244 33
Cash refunded.....	65 52
Net cash.....	13,178 81
Certificates of deposit.....	142 75
Total cash and certificates.....	13,321 56

Registration of labels:	
Cash received.....	4,099 00
Cash refunded.....	2,960 00
Net cash.....	1,139 00
Certificates of deposit.....	42 00
Total cash and certificates.....	1,181 00

Aggregates.

Cash received.....	\$1,237,371 97
Cash refunded.....	14,468 69
Net cash.....	1,222,903 28
Certificates of deposit.....	48,382 50
Total cash and certificates.....	1,271,285 78

EXPENDITURES.

Amount expended by this Office under the several appropriations from January 1, 1891, to December 31, 1891.

Salaries.....	\$671,614 05
Official Gazette.....	60,107 20
Photolithographing.....	88,755 86
Scientific library.....	2,771 16
Transportation of publications to foreign governments.....	462 90
International Union for Protection of Industrial Property.....	673 54
Total.....	824,384 71

*Approximate amount reported by the Department of the Interior as expended on account of this Office from January 1, 1891, to December 31, 1891.**

Stationery.....	\$19,825 66
Postage on foreign matter.....	1,866 00
Printing and binding.....	258,542 43
Watch force.....	16,600 00
Furniture.....	13,070 30
Carpets.....	2,253 94
Ice.....	331 89
Telephones.....	468 00
Washing towels.....	138 19
Sundries.....	2,232 23
Total.....	315,328 64

Aggregate amount of expenditures..... 1,139 713 35

RECEIPTS OVER EXPENDITURES.

Total receipts.....	\$1,271,285 78
Total expenditures.....	1,139,713 35

Receipts over expenditures..... 131,572 43

Statement of balance in the Treasury of the United States on account of the patent fund.

Amount to the credit of the fund January 1, 1891..	\$3,872,745 24
Amount of receipts during the year 1891.....	1,271,285 78
Total.....	5,144,031 02
Deduct expenditures for the year 1891.....	1,139,713 35
Balance January 1, 1892.....	4,004,317 67

SUMMARY OF THE BUSINESS OF THE PATENT OFFICE.

Number of applications for patents for inventions.....	39,418
Number of applications for patents for designs.....	1,025
Number of applications for reissues of patents.....	109
Total number of applications.....	40,552

*A literal compliance with the provisions of the statute requiring "a detailed statement of all expenditures for contingent and miscellaneous expenses" is not possible, for the reason that the contingent fund for the several bureaus of this Department was consolidated by the act of March 3, 1883, and hence no part of that fund is disbursed by the Patent Office, and I am furnished only with an approximate sum expended on behalf of the Patent Office.

Number of caveats filed.....	2,408
Number of applications for registration of trade-marks.....	1,906
Number of applications for registration of labels.....	698
Number of disclaimers filed.....	29
Number of appeals on the merits.....	1,136
Total.....	6,177

Total number of applications, etc., requiring investigation and action..... 46,729

Number of patents issued, including designs..... 23,164
Number of patents reissued..... 80

Total..... 23,244

Number of trade-marks registered..... 1,762
Number of labels registered..... 137

Total..... 1,899

Number of patents expired during the year..... 12,230
Number of patents withheld for non-payment of final fees..... 3,456

PATENTS ISSUED.

Patents issued to citizens of the United States, with the ratio of population to each patent granted.

States and Territories.	Patents and designs.	One to every—
Alabama.....	82	18,457
Arizona Territory.....	9	6,624
Arkansas.....	103	10,953
California.....	622	1,942
Colorado.....	199	2,071
Connecticut.....	733	1,018
Delaware.....	34	4,955
District of Columbia.....	219	1,052
Florida.....	52	7,527
Georgia.....	124	14,817
Idaho.....	14	6,027
Illinois.....	1,968	1,944
Indian Territory.....	6	.....
Indiana.....	570	3,846
Iowa.....	427	4,477
Kansas.....	263	5,435
Kentucky.....	195	9,531
Louisiana.....	122	9,168
Maine.....	142	4,655
Maryland.....	294	3,545
Massachusetts.....	2,122	1,055
Michigan.....	752	2,784
Minnesota.....	352	3,698
Mississippi.....	63	20,469
Missouri.....	786	3,408
Montana.....	42	3,140
Nebraska.....	191	5,544
Nevada.....	10	4,576
New Hampshire.....	144	2,614
New Jersey.....	960	1,505
New Mexico Territory.....	14	10,970
New York.....	3,907	1,535
North Carolina.....	76	21,288
North Dakota.....	29	6,300
Ohio.....	1,513	2,427
Oklahoma Territory.....	6	10,305
Oregon.....	71	4,419
Pennsylvania.....	2,197	2,393
Rhode Island.....	290	1,191
South Carolina.....	49	23,492
South Dakota.....	53	8,203
Tennessee.....	161	10,978
Texas.....	330	6,774
Utah Territory.....	25	8,316
Vermont.....	55	6,044
Virginia.....	165	10,036
Washington.....	79	4,422
West Virginia.....	74	10,308
Wisconsin.....	526	3,206
Wyoming Territory.....	3	20,235
United States Army.....	5	.....
United States Navy.....	8	.....
Total.....	21,236	.....

Patents granted to citizens of foreign countries.

Austria-Hungary	61	New South Wales	30
Belgium	20	New Zealand	9
Brazil	3	Norway	10
Bulgaria	1	Persia	1
Canada	303	Peru	1
Cape of Good Hope	1	Portugal	1
Ceylon	1	Queensland	3
Chile	1	Roumania	1
Cuba	9	Russia	11
Denmark	9	San Domingo	2
England	643	Scotland	47
France	173	South Africa	2
Germany	419	South Australia	4
Gibraltar	1	Spain	5
Hawaii	6	Sweden	35
India	3	Switzerland	41
Ireland	7	Tasmania	1
Italy	13	Turkey	1
Japan	2	Venezuela	2
Java	2	Victoria	20
Mexico	14		
Netherlands	8		
Newfoundland	1	Total	1,923

The following tables present a comparative statement of the business of the Patent Office since the enactment of the statute of 1836 and exhibit in detail the business of the Office during the last calendar year:

Comparative statement of the business of the Office from 1837 to 1891, inclusive.

Year.	Applica- tions.	Caveats filed.	Patents and re- issues.	Cash re- ceived.	Cash ex- pended.	Surplus.
1837.			435	\$29,289 08	\$33,506 98	
1838.			520	42,123 54	37,338 92	\$4,784 62
1839.			425	38,019 97	34,543 51	3,476 46
1840.	735	228	473	36,056 51	39,020 67	
1841.	847	312	495	40,413 01	52,666 67	
1842.	761	291	517	36,505 63	31,241 43	5,264 20
1843.	819	315	531	33,315 81	30,776 96	4,538 85
1844.	1,045	380	502	42,509 26	36,344 53	6,164 73
1845.	1,246	452	502	51,070 14	39,395 65	11,680 49
1846.	1,272	448	619	50,204 16	40,158 71	4,105 45
1847.	1,531	533	572	63,111 19	41,878 35	21,232 84
1848.	1,628	607	660	67,576 69	58,905 64	8,670 85
1849.	1,955	595	1,076	80,752 78	77,716 44	3,036 34
1850.	2,193	602	995	86,927 05	80,100 85	6,826 10
1851.	2,253	760	869	95,738 61	86,916 93	8,821 68
1852.	2,639	996	1,020	112,056 34	95,916 91	16,139 43
1853.	2,673	901	958	121,527 45	132,869 83	
1854.	3,324	868	1,002	163,789 34	167,146 32	
1855.	4,435	906	2,024	216,459 35	179,540 33	36,919 02
1856.	4,960	1,024	2,502	192,588 02	199,931 02	
1857.	4,771	1,010	2,910	196,132 01	211,562 09	
1858.	5,364	934	3,710	203,716 16	193,193 74	10,522 42
1859.	6,225	1,097	4,536	245,942 15	210,278 41	35,663 74
1860.	7,653	1,084	4,819	256,352 59	252,820 80	3,531 79
1861.	4,643	700	3,340	137,354 44	221,491 91	
1862.	5,038	824	3,521	215,754 99	182,810 39	32,944 60
1863.	6,014	787	4,170	195,593 29	189,414 14	6,179 15
1864.	6,972	1,063	5,020	240,919 98	229,568 00	11,051 98
1865.	10,664	1,937	6,616	343,791 84	274,199 34	74,592 50
1866.	15,269	2,723	9,450	495,065 38	361,724 28	133,941 10
1867.	21,276	3,597	13,015	646,581 92	639,263 32	7,318 60
1868.	20,445	3,705	13,378	681,565 86	628,679 77	52,886 09
1869.	19,271	3,624	13,986	693,145 81	486,430 78	206,715 03
1870.	19,171	3,273	13,321	669,456 76	557,147 19	112,309 57
1871.	19,472	3,366	13,033	678,716 46	562,091 64	116,624 82
1872.	18,246	3,090	13,590	699,726 39	665,595 00	34,131 39
1873.	20,414	3,248	12,864	709,191 77	691,178 98	12,012 79
1874.	21,602	3,181	13,599	738,278 17	679,238 41	58,989 76
1875.	21,638	3,094	14,837	743,353 36	721,637 71	21,795 65
1876.	21,425	2,697	15,595	757,937 65	652,542 60	105,445 05
1877.	20,308	2,809	14,187	732,342 85	613,153 62	119,190 23
1878.	20,260	2,755	13,444	725,375 55	593,083 89	132,292 66
1879.	20,059	2,620	13,213	709,931 47	529,638 97	174,292 50
1880.	23,012	2,490	13,947	749,635 32	536,865 17	210,620 15
1881.	26,059	2,406	16,584	853,665 89	605,173 23	248,492 61
1882.	31,522	2,553	19,267	1,009,219 45	683,867 67	325,351 78
1883.	34,576	2,741	22,353	1,146,240 00	675,234 86	471,005 14
1884.	35,600	2,582	20,413	1,075,798 80	970,579 76	105,219 04
1885.	35,717	2,552	24,293	1,188,089 15	1,024,378 85	163,710 30
1886.	35,968	2,513	22,508	1,154,551 40	992,506 45	162,047 95
1887.	35,613	2,622	21,477	1,144,509 60	994,472 22	150,037 38
1888.	35,797	2,251	20,506	1,118,516 10	973,958 78	145,407 32
1889.	40,575	2,481	24,158	1,281,728 05	1,052,955 06	228,772 99
1890.	41,048	2,911	26,292	1,340,372 66	1,099,297 74	241,074 92
1891.	40,552	2,408	23,244	1,271,235 78	1,139,713 35	131,572 43

Statement showing the number of the first patent, Design patent, and reissued patent, and the number of the first certificate of registration of a Trade-Mark and a Label issued in each calendar year since July 28, 1836, when the present series of numbers of Letters Patent commenced, together with the total number of each issued during the year.

[The number of patents granted prior to the commencement of this series of numbering (July 28, 1836) was 9,957.]

Year.	Number of first patent and certificate issued in each calendar year.					Number of patents and certificates of registration issued during each calendar year.						
	Patents.	Designs.	Reissues.	Trade-Marks.	Labels.	Patents.	Designs.	Reissues.	Total patents.	Trade-Marks.	Labels.	Total certificates.
1836 (July 28)	1					109						
1837	110					436						
1838	546					515		6				
1839	1,061		1			404		13				
1840	1,465		20			458		10				
1841	1,923		30			490		6				
1842	2,413		36			488		13				
1843	2,901	1	49			494	14	11	519			
1844	3,395	15	60			477	12	7	496			
1845	3,872	27	67			476	17	11	504			
1846	4,348	44	73			566	59	13	638			
1847	4,914	103	91			485	60	14	569			
1848	5,409	163	105			583	46	23	652			
1849	5,932	209	128			989	49	30	1,068			
1850	6,951	258	158			884	83	26	993			
1851	7,865	341	184			757	90	25	872			
1852	8,622	431	209			890	109	20	1,019			
1853	9,512	540	229			846	86	23	961			
1854	10,358	626	258			1,759	57	25	1,844			
1855	12,117	683	286			1,891	70	51	2,012			
1856	14,008	753	337			2,316	107	83	2,506			
1857	16,324	860	420			2,686	113	97	2,890			
1858	19,010	973	517			3,467	142	126	3,695			
1859	22,477	1,075	643			4,165	108	231	4,504			
1860	26,642	1,183	874			4,363	183	232	4,778			
1861	31,005	1,366	1,106			3,040	142	147	3,529			
1862	34,045	1,508	1,253			3,221	195	116	3,532			
1863	37,266	1,703	1,369			3,781	176	227	4,184			
1864	41,047	1,879	1,596			4,638	139	243	5,025			
1865	45,685	2,018	1,844			6,099	221	296	6,616			
1866	51,784	2,239	2,140			8,874	294	290	9,458			
1867	60,658	2,533	2,430			12,301	325	400	13,026			
1868	72,959	2,858	2,830			12,544	446	420	13,410			
1869	85,503	3,304	3,250			12,957	506	534	13,997			
1870	98,460	3,810	3,784			12,157	737	439	13,333	121		121
1871	110,617	4,547	4,223	122		11,687	905	464	13,056	486		486
1872	122,304	5,452	4,687	608		12,200	884	529	13,613	491		491
1873	134,504	6,336	5,216	1,099		11,616	747	501	12,864	492		492
1874	146,120	7,083	5,717	1,591		12,230	866	483	13,599	559	232	791
1875	158,350	7,969	6,200	2,150	233	13,291	915	631	14,837	1,138	232	1,370
1876	171,641	8,884	6,831	3,288	465	14,172	802	621	15,535	959	472	1,431
1877	185,813	9,686	7,452	4,247	937	12,920	699	568	14,187	1,216	392	1,608
1878	198,733	10,385	8,920	5,463	1,329	12,345	590	509	13,444	1,455	492	1,947
1879	211,078	10,975	8,529	6,918	1,821	12,133	592	488	13,213	872	355	1,227
1880	223,211	11,567	9,017	7,790	2,176	12,926	515	506	13,947	849	203	552
1881	236,137	12,082	9,523	8,139	2,379	15,548	565	471	16,584	836	202	1,038
1882	251,685	12,647	9,994	8,973	2,581	18,135	861	271	19,267	947	304	1,251
1883	269,820	13,508	10,265	9,920	2,885	21,196	1,020	167	22,393	902	906	1,808
1884	291,016	14,528	10,432	10,822	3,791	19,147	1,150	116	20,413	1,021	513	1,534
1885	310,163	15,678	10,548	11,843	4,304	23,331	773	129	24,233	1,067	391	1,458
1886	333,494	16,451	10,677	12,910	4,695	21,797	595	116	22,506	1,029	378	1,407
1887	355,291	17,046	10,793	13,939	5,073	20,429	949	99	21,477	1,133	380	1,513
1888	375,720	17,995	10,892	15,072	5,453	19,585	835	86	20,506	1,059	327	1,386
1889	395,305	18,830	10,978	16,131	5,780	23,360	723	75	24,158	1,229	319	1,548
1890	418,665	19,553	11,053	17,360	6,099	25,322	886	84	26,292	1,415	304	1,719
1891	443,987	20,439	11,173	18,775	6,403	22,328	836	80	23,244	1,762	137	1,899
1892	466,315	21,275	11,217	20,537	6,540							

Respectfully submitted,
W. E. SIMONDS,
Commissioner.

APPENDIX A.—*Patents Granted to Citizens of the United States, by Years and States, from 1790 to 1890, inclusive—Continued.*

Location.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.
Alabama.....	2	2	1	5	12	11	26	24	23	24	6				2	3	25	28	46	36	29	45	43
Arizona Territory.....																							
Arkansas.....		1		1	1	1	3	3	5	6	43	31	62	58	2	1	5	1	12	11	13	13	11
California.....			1	4	5	11	7	20	46	54						110	174	211	287	216	243	265	251
Colorado.....												1	4	7	15	8	5	15	18	13	12	8	8
Connecticut.....	54	53	45	106	111	143	141	198	231	227	157	186	190	247	406	527	645	624	653	739	667	648	622
Dakota Territory.....																		1	3			2	2
Delaware.....		2		7	9	10	11	9	10	5	6	5	7	8	17	21	25	37	30	39	46	42	40
District of Columbia.....	12	9	12	25	31	37	29	49	58	49	21	29	49	83	106	102	155	132	153	174	136	143	109
Florida.....				2	4	4	1		5	13	1	1			1	4	11	6	6	10	8	5	
Georgia.....	8	8	5	8	7	14	14	20	60	73	15					15	59	46	6	81	73	59	53
Idaho.....																	1	1					1
Illinois.....	12	23	24	38	60	82	177	147	190	226	166	178	250	319	435	650	853	964	1,008	835	871	863	844
Indiana.....	10	12	13	36	38	50	55	80	142	111	59	64	76	102	150	245	475	448	461	452	393	395	311
Indian Territory.....																							
Iowa.....	5	6	2	4	9	8	11	42	29	59	59	67	87	96	109	200	260	257	223	208	225	235	246
Kansas.....											3		6	7	8	17	21	27	34	46	40	73	75
Kentucky.....	9	7	8	23	17	20	35	20	37	30	33	14	30	35	36	94	90	94	123	143	125	145	114
Louisiana.....	4	2	6	5	13	24	19	32	48	57	4	9	5	6	10	97	80	80	94	101	95	76	96
Maine.....	10	13	22	20	23	28	27	46	52	73	40	47	40	45	109	163	125	907	180	130	127	139	170
Maryland.....	10	13	14	25	32	43	51	77	102	64	65	23	37	63	87	154	175	175	212	208	240	249	191
Massachusetts.....	139	148	146	335	316	347	383	399	452	472	361	420	444	602	939	1,177	1,320	1,393	1,322	1,448	1,380	1,435	1,370
Michigan.....	5	6	11	16	29	24	33	31	60	75	74	59	102	127	142	226	370	466	431	401	383	337	356
Minnesota.....											5	9	12	16	12	33	60	79	80	70	53	78	10
Mississippi.....	1	3	1	5	9	10	12	31	24	42	6				2	3	20	20	36	50	48	75	35
Missouri.....	9	4	3	10	7	34	44	47	32	75	38	26	43	47	61	105	200	211	246	210	248	251	288
Montana.....																	1	3	1	1	2		3
Nebraska.....										2		2	2	8	5	5	2	2	6	14	16	12	22
Nevada.....																							19
New Hampshire.....	19	16	16	41	44	51	38	49	61	58	41	40	38	50	54	99	249	136	111	111	102	122	127
New Jersey.....	17	20	19	78	82	77	85	125	114	135	130	124	131	166	211	305	388	420	423	474	496	682	614
New Mexico Territory.....																							
New York.....	299	350	290	507	582	626	765	939	1,113	1,278	894	969	1,135	1,345	1,885	1,856	2,893	2,771	2,940	2,962	2,954	3,079	2,826
North Carolina.....	2	1	4		7	16	20	24	26	7					1	1	25	26	43	54	51	36	58
North Dakota.....																							
Ohio.....	87	81	68	144	136	146	218	292	334	340	210	249	260	311	484	926	1,128	1,029	1,005	982	905	985	832
Oklahoma Territory.....																							
Oregon.....											2		1		3	7	17	23	40	22	23	23	19
Pennsylvania.....	90	157	154	261	245	275	272	412	481	513	332	363	425	452	771	926	1,295	1,340	1,349	1,481	1,543	1,575	1,639
Rhode Island.....	14	14	14	20	26	25	33	43	69	77	65	60	52	82	94	121	156	188	197	197	184	179	167
South Carolina.....	4	3	2	4		7	9	11	12	14	26				1	6	14	14	22	35	26	29	25
South Dakota.....																							
Tennessee.....	4	6	3	9	8	14	14	18	30	46	10	1	5	4	7	31	50	66	69	109	104	105	105
Texas.....	2	2	1	2	4	5	6	11	28	21	8					2	15	17	49	48	52	73	109
Utah Territory.....																			2	1			
Vermont.....	11	19	16	27	34	39	49	40	62	67	35	45	45	44	48	84	36	156	134	123	111	91	87
Virginia.....	9	14	24	45	48	49	53	57	63	101	13	9	13	10	11	61	78	88	96	110	108	106	76
Washington.....												3			1	2	2		4	1	1	3	6
West Virginia.....														6	11	12	18	30	35	47	42	67	42
Wisconsin.....	3	2	1	8	16	30	32	62	68	62	54	71	88	94	149	233	274	301	263	228	227	201	217
Wyoming.....																							
United States Army.....																							
United States Navy.....																							
Citizens of the United States resid- ing abroad.....																							

REPORT OF THE COMMISSIONER OF PATENTS FOR THE YEAR 1891.

APPENDIX A.—*Patents Granted to Citizens of the United States, by Years and States, from 1790 to 1890, inclusive—Continued.*

Location.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	Totals.
Alabama.....	39	31	46	43	39	61	62	47	46	77	69	85	59	54	64	76	103	1,475
Arizona Territory.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	106
Arkansas.....	14	11	23	36	45	35	44	48	53	59	66	77	61	66	10	84	35	970
California.....	301	389	423	341	320	351	349	440	486	506	514	588	594	505	445	566	640	9,957
Colorado.....	22	36	21	28	35	29	24	73	90	119	110	140	311	151	153	142	184	1,578
Connecticut.....	668	706	736	607	529	569	610	692	704	893	806	1,011	854	788	789	869	937	21,810
Dakota Territory.....	4	3	10	6	5	9	8	11	26	30	33	47	60	71	89	92	513	513
Delaware.....	39	44	35	28	39	24	32	31	34	36	35	51	42	34	33	54	.....	1,083
District of Columbia.....	145	214	197	123	146	192	116	132	170	217	207	25	201	210	214	224	235	4,974
Florida.....	12	7	29	14	3	9	15	21	18	54	17	25	41	41	39	54	51	502
Georgia.....	69	63	63	63	105	74	7	93	24	113	106	144	140	122	122	150	165	2,479
Idaho.....	.....	1	5	1	2	.....	6	3	.....	6	4	6	6	4	4	12	12	96
Illinois.....	944	1,098	1,298	1,046	998	949	943	1,122	1,422	1,792	1,659	1,907	1,798	1,595	1,661	1,940	2,152	33,642
Indiana.....	355	425	450	345	345	359	339	448	613	712	624	907	699	556	777	572	670	13,138
Indian Territory.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33
Iowa.....	312	315	425	428	325	309	285	300	348	445	418	457	452	438	368	430	437	8,999
Kansas.....	74	66	63	103	63	81	96	119	173	189	198	230	233	311	330	361	352	3,463
Kentucky.....	125	149	162	151	145	156	170	170	196	226	194	228	251	245	218	248	252	4,783
Louisiana.....	76	103	107	79	76	59	66	74	86	81	89	76	95	112	98	133	137	2,559
Maine.....	151	158	178	132	140	112	101	133	157	183	148	156	138	151	152	147	192	5,011
Maryland.....	918	960	973	132	183	220	223	265	272	260	254	284	270	253	263	321	297	7,401
Massachusetts.....	1,506	1,249	1,567	1,199	1,339	1,708	1,338	1,708	1,815	2,173	1,917	2,243	2,116	1,875	1,887	2,042	2,096	48,992
Michigan.....	380	463	426	383	390	331	450	537	637	727	662	847	768	733	693	812	980	14,111
Minnesota.....	110	143	164	146	129	101	44	146	187	210	213	236	288	305	277	289	379	4,075
Mississippi.....	56	38	42	39	38	45	39	41	56	51	73	70	52	45	48	48	55	1,354
Missouri.....	369	362	423	365	315	291	337	410	495	625	573	705	685	654	647	768	809	11,066
Montana.....	1	4	3	3	3	3	4	3	18	20	17	10	22	22	31	27	53	276
Nebraska.....	29	22	40	48	3	50	48	31	57	73	87	17	10	127	137	294	225	3,276
Nevada.....	16	21	24	24	36	29	24	14	14	23	17	129	14	15	17	13	12	1,673
New Hampshire.....	127	127	106	78	92	95	111	110	94	139	120	145	157	166	141	159	172	4,340
New Jersey.....	616	656	685	502	490	587	518	527	835	1,066	955	1,115	923	988	863	1,061	1,112	19,629
New Mexico Territory.....	3	1	3	2	2	2	2	3	8	11	6	12	12	9	23	18	16	139
New York.....	2,785	3,771	3,914	2,496	2,569	2,556	2,802	3,207	3,779	4,359	3,924	4,532	4,131	4,047	3,634	4,288	4,585	101,249
North Carolina.....	47	37	51	51	53	55	36	64	72	87	58	81	75	66	55	71	74	1,599
North Dakota.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ohio.....	928	1,091	1,195	1,083	1,070	902	917	1,099	1,466	1,604	1,458	1,837	1,599	1,477	1,353	1,674	1,762	34,606
Oklahoma Territory.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oregon.....	30	22	24	38	35	19	22	31	51	76	42	57	60	59	66	51	82	945
Pennsylvania.....	1,644	2,034	1,895	1,518	1,296	1,369	1,324	1,502	1,843	2,168	1,863	2,454	2,289	2,109	1,990	2,392	2,641	51,140
Rhode Island.....	164	229	231	212	190	191	205	278	282	327	304	367	251	294	399	287	251	6,521
South Carolina.....	42	46	31	34	28	36	39	45	45	47	64	80	46	52	42	60	75	1,207
South Dakota.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tennessee.....	89	117	107	114	98	91	82	88	109	134	108	159	136	121	131	126	180	2,923
Texas.....	113	118	108	115	130	142	147	177	190	208	192	277	266	265	239	314	308	3,782
Utah Territory.....	9	5	14	4	7	7	10	17	18	21	24	36	24	21	21	25	30	308
Vermont.....	126	122	111	58	109	70	76	69	100	109	91	115	117	109	80	27	101	3,498
Virginia.....	178	101	145	100	113	107	99	108	117	122	111	116	122	132	97	146	177	3,773
Washington.....	3	6	3	13	13	7	6	19	17	21	23	22	32	34	26	33	64	370
West Virginia.....	38	48	55	31	58	49	52	44	59	82	75	70	83	75	62	76	95	1,352
Wisconsin.....	255	284	303	245	251	215	276	238	356	394	399	469	398	427	477	492	634	8,738
Wyoming.....	2	2	10	9	8	5	3	3	7	5	5	3	8	4	6	4	8	100
United States Army.....	7	5	7	14	4	6	6	6	7	6	5	3	3	6	12	19	9	214
United States Navy.....	1	1	1	2	1	5	3	2	2	3	4	3	3	6	9	9	9	83
Citizens of the United States resid- ing abroad.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17
Unknown.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5

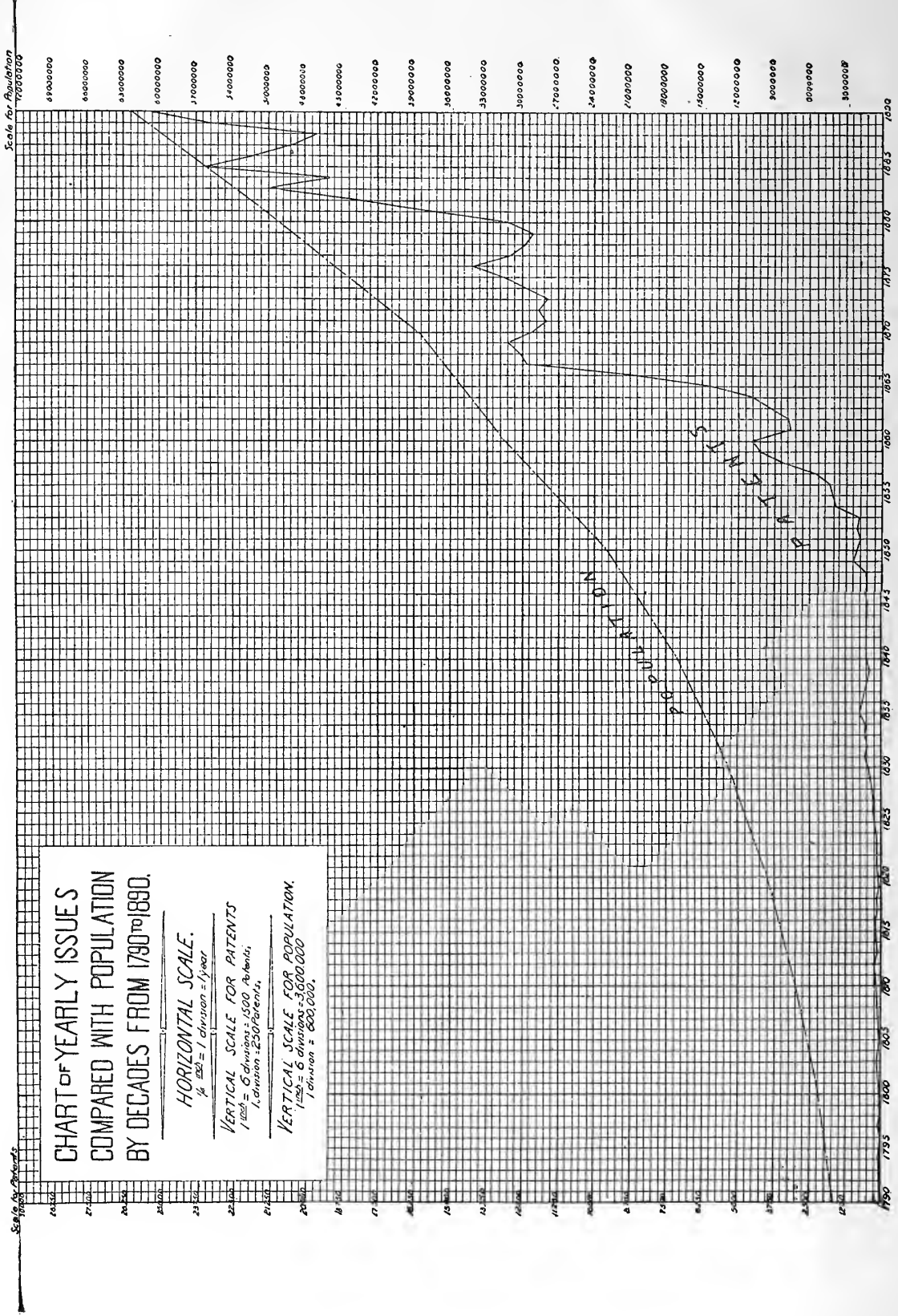
APPENDIX B.—*Patents Granted to Citizens of Foreign Countries, by Years and Countries, from 1790 to 1890, inclusive—Continued.*

Location.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.
Algeria.....																				
Argentine Republic.....																				
Austria-Hungary.....			1	2			2	1	2	2		5	10	4	7	7				
Australia.....															1					
New South Wales.....																				
Queensland.....								2		2				1						
South Australia.....																				
Victoria.....																				
Western Australia.....																				
Belgium.....		1	1	1				1	1			4	5	6	4	3				
Bermuda.....																				
Brazil.....							1								1					
British Columbia.....																				
British Guiana.....											2					2				
Canada.....						8	8	4	16	9	7	14	22	15	26	25				
Canary Islands.....	1	4	3	4	2															
Cape of Good Hope.....																				
Central America.....																				
Chile.....												2								
China.....																				
Colombia.....																				
Columbia.....																				
Costa Rica.....																				
Cuba.....																				
Curaçoa.....																				
Denmark.....									1	2	1				2	3				
Egypt.....	21	16	17	30	9	18	12	34	24	55	89	83	119	150	161	187				
England.....																	349	432	445	341
Ecuador.....																				
Finland.....																				
France.....	6	16	4	15	10	13	14	19	27	38	37	40	48	68	68	81				
Germany.....	3	4	3	2	3	4		5	7	13	12	15	22	20	30	27				
Guadeloupe.....																				
Guatemala.....								4												
Hawaii.....																				
India.....	2																			
Ireland.....	1		1				1	8			1	1	5		4	3				
Italy.....	1				2		2			1		2	3		4	1				
Japan.....																				
Java.....																				
Luxembourg.....																				
Martinique Islands.....																				
Mexico.....							2							1	2	2				
Monaco.....																				
Netherlands.....																				
Newfoundland.....											8									
New Zealand.....																				
Norway.....																				
Peru.....																				
Portugal.....																				
Roumania.....																				
Russia.....							1	2												
Scotland.....							3													
South Africa.....	1		1		1	1	1													
Spain.....							2													
Sweden.....																				
Switzerland.....							1	1	1	2	2	2	2	1	1	2				
Syria.....																				
Turkey.....																				
Venezuela.....																				
West Indies.....																				
Unknown.....				1		2		2		1		2	5	2	5	1	206	60	85	88

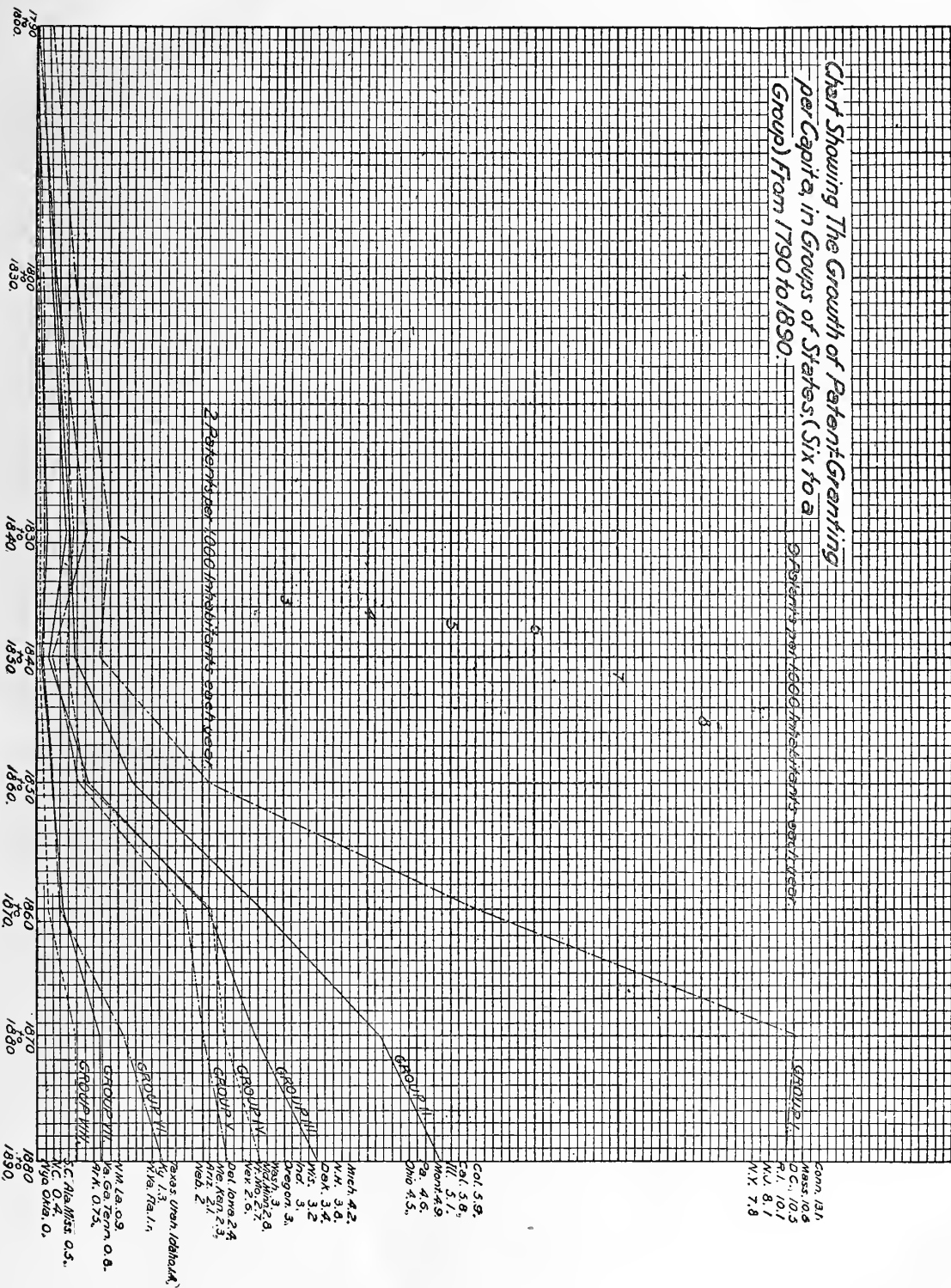
APPENDIX B.—Patents Granted to Citizens of Foreign Countries, by Years and Countries, from 1790 to 1890, inclusive—Continued.

Location.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	Totals.
Algeria.....								1							1			2
Argentina Republic.....									32	33							3	7
Austria-Hungary.....	15			30			5	5	5						30	66	71	486
Australia.....	5			2			3		3	3					6	9	17	48
New South Wales.....															1	2	1	4
Queensland.....										10					4	3	5	40
South Australia.....									3	3	5				11	16	19	67
Victoria.....															2			4
Western Australia.....															20	24	18	239
Belgium.....	10			7			11	1	1	20	25	24	17	35	1	1	2	6
Bermuda.....								1	1	1	1	3	2	2	1	2		19
Brazil.....	1			1														2
British Columbia.....																		4
British Guiana.....																		3
Canada.....	160			215			228	251	220		1	384	275	294	281	299	371	3,054
Canary Islands.....															1			1
Cape of Good Hope.....																		2
Central America.....				2			1	3	1	3	1	1	7	3				18
Chile.....				1			2	1	1									15
China.....										2					1			2
Colombia.....															2			2
Congo.....																		10
Costa Rica.....																		3
Cuba.....				3			7	5	11						5	4	11	62
Denmark.....				2			10	7	6			20	9	11	8	16	8	108
Egypt.....																		1
England.....		352	358	511	362	336	364	343	399	435	438	549	548	500	524	739	721	10,537
Ireland.....								1										2
Rhodes.....																		1
France.....	91	83	104	73	60		129	116	129	179	161	138	144	192	131	156	178	2,810
Germany.....	174			213	98	128	219	213	235	235	253	298	272	291	355	440	452	3,695
Guadeloupe.....																		1
Guatemala.....																		5
Hawaii.....																		1
India.....									3	3					2	4	4	22
Ireland.....									3	2	6				2	2	1	17
Italy.....										5		9	9	8	12	12	21	106
Japan.....				7			20	5	3	2	2	5	6	2	4	7	86	56
Korea.....																		1
Luxembourg.....																		1
Macao.....																		2
Mexico.....																		1
Netherlands.....																		73
New Zealand.....																		14
Norway.....																		6
Peru.....																		6
Portugal.....																		13
Roumania.....																		60
Russia.....																		44
Scotland.....																		7
South Africa.....																		5
Spain.....																		12
Sweden.....																		2
Switzerland.....																		162
Syria.....																		261
Turkey.....																		1
Venezuela.....																		2
West Indies.....																		8
Unknown.....	101	122	172	65	87	65												42
																		1,051

APPENDIX C.



APPENDIX D.



APPENDIX E.—*Patents Granted Prior to 1800.*

Name.	Residence.	Invention.	Date.
1790.			
Hopkins, Samuel	Philadelphia, Pa.	Pot and pearl ash manufacture	July 31
Sampson, Joseph S.	Boston, Mass.	Candle manufacture.	Aug. 6
Evans, Oliver.	Philadelphia, Pa.	Flour and meal manufacture	Dec. 18
1791.			
Baily, Francis	Philadelphia, Pa.	Punch.	Jan. 29
Biddis, John, and Thomas Bedwell.	Philadelphia, Pa.	Tan-extraction	Aug. 10
Briggs, Samuel, Sr., and Jr.	Philadelphia, Pa.	Nail-machine.	Aug. 2
Dickerson, Jonathan	Morris county, N. J.	Tide-mill	July 30
Fitch, John	Philadelphia, Pa.	Propelling boats by steam	Aug. 26
Gordon, Peter	Philadelphia, Pa.	Boot manufacture	Aug. 10
Keyser, George	Philadelphia, Pa.	Gunpowder manufacture	Aug. 10
Kuhn, Ludwig C.	Philadelphia, Pa.	Marble-cutting machine	Mar. 11
Kuhn, Ludwig C.	Philadelphia, Pa.	Bedstead	Aug. 10
Livingston, Robert R.	Clermont, N. Y.	Diminishing the friction of spindles.	Aug. 4
Macomb, James	Princeton, N. J.	Horizontal water-wheel	Aug. 26
Mulliken, Samuel.	Philadelphia, Pa.	Marble-cutting machine	Mar. 11
Mulliken, Samuel.	Philadelphia, Pa.	Machine for raising nap	Mar. 11
Mulliken, Samuel.	Philadelphia, Pa.	Thrashing-machine	Mar. 11
Mulliken, Samuel.	Philadelphia, Pa.	Flax-dressing machine	Mar. 11
Parkinson, George	Philadelphia, Pa.	Flax and hemp spinning	Mar. 17
Pollard, William	Philadelphia, Pa.	Cotton-spinning	Dec. 30
Putnam, Aaron	Medford, Mass.	Distilling	Jan. 29
Read, Nathan.	Salem, Mass.	Distilling	Aug. 26
Read, Nathan.	Salem, Mass.	Steam-engine boiler	Aug. 26
Rumsey, James.	Berkeley county, Va.	Bellows	Aug. 26
Rumsey, James.	Berkeley county, Va.	Mill	Aug. 26
Rumsey, James.	Berkeley county, Va.	Propelling boats.	Aug. 26
Rumsey, James.	Berkeley county, Va.	Steam-engine.	Aug. 26
Rumsey, James.	Berkeley county, Va.	Steam-generating	Aug. 26
Stevens, John, Jr.	Bergen county, N. J.	Bellows	Aug. 26
Stevens, John, Jr.	Bergen county, N. J.	Steam-boiler.	Aug. 26
Stevens, John, Jr.	Bergen county, N. J.	Steam-engine	Aug. 26
Stone, John.	Concord, Mass.	Pile-driving	Mar. 10
Thompson, William	Richmond, Va.	Thrashing-machine	Aug. 2
Tisdale, Ephraim	Warren county, N. Y.	Snut and wheat machine	July 31
Voight, Henry	Philadelphia, Pa.	Propelling boats.	Aug. 10
Zacharie, Peter	Baltimore, Md.	Mud-machine	Nov. 24
1792.			
Bailey, John	Boston, Mass.	Steam-jack	Feb. 23
Farrington, Thomas	Boston, Mass.	Sawing wood and bark	May 9
Folger, Benjamin	Hudson, N. Y.	Whale-oil clarification	Jan. 2
Hartley, David	Westminster, England	Steel-tempering	Feb. 24
Herbert, Obadiah	Mount Pleasant, N. J.	Thread spinning and twisting	Jan. 28
Hodge, Solomon, and Jonathan Dorr	Washington, N. Y.	Hand-mill	Oct. 23
Kirk, Timothy, and Bob Leslie	York, Pa.	Wire-weaving	May 9
Morris, George	Philadelphia, Pa.	Preserving plants from frost	July 10
Ridgway, David	Philadelphia, Pa.	Brick-making	Aug. 26
1793.			
Babcock, Abijah	New York	Propelling vessels.	Dec. 2
Bronwer, Samuel	Massachusetts	Brick or pantile	Aug. 17
Caldwell, James, and Chris. Batterman	Albany, N. Y.	Tobacco-manufacturing	Jan. 26
Caldwell, James, and Chris. Batterman	Albany, N. Y.	Wood-sawing	Jan. 26
Carnes, John, Jr.		Paper-mold	Apr. 11
Clarke, John	New York	Hydraulic machine	Dec. 31
Colles, Chris.	New York	Brick-making	Jan. 26
Kinsley, Appollos	New York	Tempering mortar for bricks	Feb. 1
Kinsley, Appollos	New York	Tempering mortar for bricks	Dec. 20
Leslie, Robert	Philadelphia, Pa.	Pendulum	Jan. 30
Leslie, Robert	Philadelphia, Pa.	Pendulum	Jan. 30
Leslie, Robert	Philadelphia, Pa.	Pendulum	Jan. 30
Leslie, Robert	Philadelphia, Pa.	(No title)	Feb. 2
Leslie, Robert	Philadelphia, Pa.	Bell	Feb. 2
Morey, Samuel	Oxford, N. H.	Spit-turner	Jan. 26
Pope, Joseph	Boston, Mass.	Windmill	Jan. 26
Ryan, Edward	Pennsylvania	Furnace	Apr. 29
Saltonstall, Roswell	New London, Conn.	Sumac manufacture	Feb. 28
Saltonstall, Roswell	New London, Conn.	Sumac manufacture	May 1
Williams, Jonathan, Jr.	Philadelphia, Pa.	Sugar claying mold	Mar. 13
1794.			
Anderson, Alexander	Pennsylvania	Steam-still	Sept. 2
Barclay, John	Pennsylvania	Bark-mill	July 19
Biddis, John	Pennsylvania	Paper-machine	Mar. 31
Cox, Zachariah	Georgia	Circular saw	Mar. 14
Davenport, James	New Jersey	Weaving and beating sail-duck	Feb. 14
Drake, James	New Jersey	Bellows	Mar. 19
Fennel, James	Pennsylvania	Salt manufacture	Sept. 24
Hathaway, Joshua	Vermont	Hydraulic machine	Oct. 29
Hodgson, William	Vermont	Thrashing-machine	Apr. 28
Parkinson, George	Pennsylvania	Cordage manufacture	June 16
Perkins, Thomas	Pennsylvania	Nail-machine	Feb. 7
Person, Josiah G.	New York	Nail-cutting	Mar. 23
Reeve, Mark	Pennsylvania	Pump	July 29
Rigg, Eliza	Pennsylvania	Pump	Mar. 13
Robotham, Richard	Vermont	Flooring composition	Apr. 12
Robotham, Richard	New York	Candle manufacture	June 2
Simpson, Joseph	Richmond, Va.	Distilling	Mar. 4
Staples, J.	New York	Carriage	Apr. 25
Wardrop, James	Ampthill, Va.	Thrashing-machine	Nov. 5

APPENDIX E.—*Patents Granted Prior to 1800—Continued.*

Name.	Residence.	Invention.	Date.
Whitney, Eli	Massachusetts	Cotton-gin	1794. Mar. 14
Wynkoop, William	Philadelphia, Pa.	Propelling boats	Sept. 13
Ellicott, Joseph	Pennsylvania	Fish-catching	1795. May 25
Hetterich, Robert	Pennsylvania	Cast-iron stove	June 11
Keller, Daniel	Pennsylvania	Propelling boats	May 25
Kellogg, Samuel	Vermont	Wool and cloth shearing	Jan. 31
Morey, Samuel	New Hampshire	Steam application	Mar. 25
Mulliken, Samuel	Pennsylvania	Flax and hemp machine	Jan. 15
Perkins, Jacob	Boston, Mass.	Nail-cutting	Jan. 16
Pittman, John	Rhode Island	Cordage manufacture	May 25
Sprague, William P.	Pennsylvania	Propelling boats	June 19
Wynkoop, Benjamin	Philadelphia, Pa.	Nautical ventilator	June 19
Youle, John	New York	Caboose for cooking	May 25
Backus, Elijah	Virginia	Steam-engine boiler	1796. May 31
Bigelow, John	Connecticut	Manufacturing nails	Nov. 19
Brunell, Mark J.	New York	Paper-ruling	Nov. 16
Byington, Jared	Connecticut	Nail	Jan. 15
Chandler, George	Maryland	Cutting and heading nails	Dec. 12
Cox, Zachariah	Georgia	Manufacturing cut nails	Nov. 16
Dellet, James	Pennsylvania	Rice-cleaning machine	Dec. 23
Dexter, George B.	Boston, Mass.	Sulphur sublimation	Oct. 9
Dickerson, Jonathan	New Jersey	Marble-sawing	Jan. 9
Evans, Oliver	Pennsylvania	Burr millstone	May 28
Fowler, John	Pennsylvania	Concentration of volatile parts of calcareous earth	Nov. 16
French, Daniel	Connecticut	Cut nails	Dec. 23
Frobisher, William	Massachusetts	Pot and pearl ash manufacture	Nov. 17
Frost, Jason	Connecticut	Heading nails	Dec. 23
Garretson, Isaac	Pennsylvania	Nail heading and cutting	Nov. 16
Grant, Robert	South Carolina	Rice-scouring machine	Oct. 17
Hillard, Joseph	Connecticut	Sumac manufacture	May 12
Holmes, Hodgen	Georgia	Cotton-gin	Mar. 12
Kinsley, Appollos	Connecticut	Printing-press	Nov. 16
Ludd, Nathaniel	New Hampshire	Sumac-extraction	Feb. 12
Mangin, Joseph F.	New York	Marble-sawing, etc.	July 2
McKechnie, Luden	Pennsylvania	Stay	July 1
McLean, James	New York	Piano-forte	May 27
Murray, John	Georgia	Cotton-gin	Dec. 23
Passmore, Thomas	Philadelphia, Pa.	Cooking and boiling	Dec. 23
Perkins, Elisha	Connecticut	Metallic point	Feb. 19
Rentgen, Clem	Pennsylvania	Bolt and bar forging	Nov. 17
Roberts, Jonathan, Jr.	Pennsylvania	Machine for cleaning clover-seed	Feb. 13
Ryan, Edward	Pennsylvania	Pot and pearl ash manufacture	Nov. 16
Stansfield, James	Virginia	Sheepskin splitting	Nov. 16
Tyler, Benjamin	New Hampshire	Wheat-fan	Apr. 15
Watkins, Robert	Georgia	Cotton-gin	Dec. 23
Whittemore, Amos	Massachusetts	Loom	Nov. 17
Whittemore, Amos	Massachusetts	Nautical perambulator	Nov. 19
Whittemore, Amos	Massachusetts	Nail-cutting	Nov. 19
Zacharie, Peter	Maryland	Nail and Brad cutting	May 4
Zaisler, James	Baltimore, Md.	Tallow and wax candle making	Apr. 2
Allurne, Lawrence	Pennsylvania	Colors for painting	1797. Feb. 24
Betts, Cyrus	New York	Tide water-wheel	Mar. 18
Booker, William	Virginia	(No title)	Mar. 11
Briggs, Nathaniel	New Hampshire	Washing-machine	Mar. 28
Bryan, Elijah	New York	Tooth-extractor	July 13
Byington, Jared	Connecticut	Heading nails	June 23
Curtiss, Jonathan	Pennsylvania	Mill	Aug. 24
Dawson, Robert	Delaware	Bolting-cloth	May 12
Duvall, Benjamin	Virginia	Pill	May 3
Elliott, Richard	Massachusetts	(No title)	Nov. 16
Faris, William	Maryland	Carriage	Apr. 29
Fling, Lester	Vermont	Manufacturing nails	Dec. 19
Fowler, Charles	Pennsylvania	Bridge	Feb. 24
Garretson, Isaac	Pennsylvania	Rigging vessels	May 29
Grieve, David	Massachusetts	Loom	June 6
Hall, Fitch	New York	Compound distillation	Apr. 17
Hawkins, John	New Jersey	Brick, etc.	July 11
Hirst, Thomas	Pennsylvania	Stove	Mar. 11
Jarvis, Bill	New York	Shingle, etc., machine	July 8
Johnson, Moses	New Hampshire	Preserving butter and eggs	June 30
Kent, Major	Pennsylvania	Nail cutting and heading	Feb. 24
Kersey, Jesse	Pennsylvania	Fire-engine	Apr. 13
Kinsley, Appollos	Maryland	Tobacco-cutting machine	Aug. 12
Leach, Caleb	Massachusetts	Pump	Apr. 13
Mangin, Joseph F.	New York	Marble-sawing, etc.	Feb. 16
Martin, John	New York	Propelling boats	Nov. 21
Mazzy, John	Massachusetts	Alkali from marine salt, etc.	Jan. 6
McCallmont, James		Stove	Feb. 20
Mulliken, Samuel	Pennsylvania	Rice-scouring machine	Feb. 20
Nazro, John	Massachusetts	Soap-making	Jan. 6
Nevill, Jonathan	Massachusetts	Nail cutting and heading	Aug. 12
Newbold, Charles	New Jersey	Plow	June 26
Palmer, Timothy	Massachusetts	Bridge	Dec. 17
Parsons, Stephen	Massachusetts	Window-sash	Nov. 20
Payne, William		Soapstone-stove	Dec. 10
Peale, Charles W.	Pennsylvania	Bridge	Jan. 21
Peale, Charles W.	Pennsylvania	Fire-place	Nov. 16
Perry, Eli	Connecticut	Clock	Nov. 17
Petibone, Daniel	New York	Dough and paste breaking	Nov. 10
Ring, Elias	New York	Tide water-wheel	Dec. 16

APPENDIX E.—*Patents Granted Prior to 1800—Continued.*

Name.	Residence.	Invention.	Date.
Rumsey, James.....	Berkeley county, Va.....	Working mill.....	1797. Aug. 26
Sampson, Joseph S.....	Massachusetts.....	Candle manufacture.....	June 26
Sampson, Joseph S.....	Massachusetts.....	Hoop-iron straightening.....	June 26
Seymour, Benjamin.....	Massachusetts.....	Rolling-mill machinery.....	June 26
Spence, James.....	New York.....	Nail cutting and heading.....	Feb. 16
Starr, Jehosaphat.....	Connecticut.....	Propelling boats.....	Apr. 28
Stickney, Thomas.....	Massachusetts.....	Saddle.....	Nov. 16
Stuart, Richard.....	Maryland.....	Chimney.....	Feb. 24
Wheaton, Caleb.....	Massachusetts.....	Stove.....	Mar. 29
Whittemore, Amos.....	Massachusetts.....	Wool-card.....	June 5
Wynkoop, Benjamin.....	Pennsylvania.....	Pumping ships.....	June 26
Austin, Cyrus.....	New Jersey.....	Manufacture of paper.....	1798. Dec. 4
Banks, William.....	Connecticut.....	Bread-making.....	Dec. 14
Blydenburg, Samuel.....	Connecticut.....	Candle-dipping.....	Mar. 22
Brewster, Walter.....	Connecticut.....	Flume water-wheel.....	June 7
Bruff, Thomas, Sr.....	Maryland.....	Coffee-mill.....	Jan. 8
Brunell, Mark J.....	New York.....	Pump.....	Apr. 27
Clarke, Aaron.....	New York.....	Sawmill.....	Mar. 30
Colver, Stephen.....	Connecticut.....	Heaving-down vessels and raising weights.....	Dec. 14
Colver, Stephen.....	Connecticut.....	Mud-machine.....	Dec. 14
Cooley, Samuel.....	Connecticut.....	Pill.....	June 6
Dixey, John.....	New Jersey.....	Printing-machine.....	Jan. 24
Holden, Charles.....	Vermont.....	Windmill.....	Mar. 15
Hunt, Jonathan.....	New York.....	Pump.....	June 7
Lazell, Isaac.....	Massachusetts.....	Machine for removing rocks.....	May 18
Martin, John.....	New York.....	Regulating tide-wheels.....	Apr. 27
Martin, Thomas C.....	Massachusetts.....	Thrashing-machine.....	June 3
McKean, Robert.....	New Jersey.....	Steam sawmill.....	Mar. 24
Ormsbee, Elijah.....	Rhode Island.....	Engine.....	Mar. 21
Peale, Raphael.....	Pennsylvania.....	Preserving vessels from worms.....	Dec. 14
Read, Nathan.....	Massachusetts.....	Nail cutting and heading.....	Jan. 28
Smallman, James, and A. J. Roosevelt.....	Massachusetts.....	Steam-engine.....	May 31
Strendinger, Charles.....	New Jersey.....	Propelling boats.....	June 2
Tryon, Isaac.....	Connecticut.....	Comb pointing and cutting.....	Feb. 22
Weed, Ezra.....	Massachusetts.....	Washing-machine.....	June 26
Wilkinson, David.....	Rhode Island.....	Screw-cutting machine.....	Dec. 14
Abbett, Henry.....	Pennsylvania.....	Steam-still.....	1799. Jan. 24
Brunell, Mark J.....	New York.....	Pen.....	Jan. 17
Chase, Haviland.....	New York.....	Mill.....	Dec. 16
Dearborn, Benjamin.....	Massachusetts.....	Steelyard.....	Feb. 14
Dearborn, Benjamin.....	Massachusetts.....	Double-centered mill.....	Apr. 30
Dulheur, Benjamin.....	South Carolina.....	Sawmill.....	Apr. 30
Duty, Andrew W.....	South Carolina.....	Cutting clay for tiles.....	May 8
Duvall, Benjamin.....	Virginia.....	Tempering steel.....	Feb. 14
Ellis, William.....	New Jersey.....	Washing malt.....	June 18
Gould, Chester.....	Pennsylvania.....	Ship's log.....	May 27
Hancock, William.....	Westminster, England.....	Iron-casting.....	Feb. 26
Hart, Seth.....	Connecticut.....	Nail-machine.....	Jan. 4
Hawks, John.....	Connecticut.....	Pill.....	Dec. 14
Hodgson, Ralph.....	New York.....	Oiled-silk manufacture.....	Feb. 1
Humphrey, Joseph.....	New York.....	Pump.....	Jan. 10
Keller, Daniel.....	Pennsylvania.....	Boat.....	Nov. 5
Kinsley, Appollos.....	Connecticut.....	Pump.....	Oct. 28
Livingston, Robert R.....	New York.....	Paper-manufacturing.....	Oct. 28
Lond, James.....	Maryland.....	Hat-napping.....	Aug. 5
Macfarland, Moses.....	Massachusetts.....	Balloon.....	Oct. 28
Morey, Samuel.....	Oxford, N. H.....	Steam-power.....	Mar. 27
Payne, Thomas.....	New York.....	Sawmill.....	Dec. 2
Perkins, J.....	Massachusetts.....	Detecting counterfeit notes.....	Mar. 19
Perkins, Jacob.....	Pennsylvania.....	Nail-machine.....	Feb. 14
Pratt, Phineas.....	Connecticut.....	Comb-making machine.....	Apr. 12
Robotham, Richard.....	New York.....	Clarifying spermaceti-oil.....	Aug. 14
Reed, Ezekiel.....	Massachusetts.....	Water-wheel.....	Feb. 4
Sanford, Isaac.....	Connecticut.....	Cloth-dressing machine.....	Mar. 27
Sears, John.....	Massachusetts.....	Salt manufacture.....	Jan. 24
Shackford, Josiah.....	New York.....	Propelling boats.....	Mar. 21
Shotwell, John.....	New Jersey.....	Ax-sharpening.....	Mar. 16
Spooner, Eliakim.....	Vermont.....	Cultivator.....	Jan. 25
Stickley, John.....	Massachusetts.....	Pump for ships.....	Nov. 29
Thompson, Thomas.....	New Jersey.....	Windmill-regulation.....	Jan. 3
Tyler, Benjamin.....	Massachusetts.....	Flax and hemp machine.....	Feb. 26
Weld, Ezra.....	Massachusetts.....	Washing-machine.....	Sept. 17
Whiting, Charles.....	Massachusetts.....	Extracting oil.....	Mar. 2
Wigglesworth, Michael.....	Massachusetts.....	Rope-making.....	June 26
Wilder, Abijah.....	New Hampshire.....	Sleigh-runner.....	Dec. 14

ALPHABETICAL LIST

OF

PATENTEEs FOR THE YEAR 1891.

[Patentees of Designs, Trade-Marks, and Labels, and parties who have filed Disclaimers follow this in separate indexes, but precede the Alphabetical List of Inventions.]

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Specification.	Drawing.	Volume.	Page.
A. Booth Packing Company. (See Adams, John, assignor.)						
A. French Spring Company. (See French, Philo N., assignor.)						
A. M. Leslie Surgical Instrument Company. (See Leslie, Andrew, assignor.)						
Aabel, John T., San Francisco, Cal. Car-coupling	465,231	Dec. 15	1943	494	57	1524
Aaron, William T., Callands, Va. Back-brace	452,206	May 12	1235	312	55	815
Aaronson, Simon, New York, N. Y. Bake-pau	452,656	May 19	1958	491	55	960
Abbe, Charles C., Brooklyn, assignor to Abbe Steam Engine Company, New York, N. Y.						
Multiple-cylinder engine	444,901	Jan. 20	1483	383	54	306
Abbé, Richard W. F., Belleville, N. J. Pressure-regulator	444,082	Jan. 6	160	40	54	34
Abbe Steam Engine Company. (See Abbe, Charles C., assignor.)						
Abbey, Hartwell. (See Staber and Abbey.)						
Abbey, Marietta, Dailey, Mich. Label-holding frame	462,071	Oct. 27	2467	612	57	495
Abbiati, Ernesto, New York, N. Y. Clothes-line fastener	449,099	Mar. 31	2957	749	54	1717
Abbots, James A., Seekonk, Mass., assignor to himself, S. E. Hilton, D. N. Ryder, Providence, and R. H. Ryder, Pawtucket, R. I. Wrench	451,991	May 12	849	217	55	747
Abbott, Adrian O., Hudson, Mich. Hub-borer	451,794	May 5	535	132	55	680
Abbott, Austin, New York, N. Y. Book	462,226	Nov. 3	1	1	57	553
Abbott, Edwin O., <i>et al.</i> (See Conly, Mahlon S., assignor.)						
Abbott, Edwin O., Chicago, Ill. Cushion for cheek-perforators	450,691	Apr. 21	1624	390	55	333
Abbott, Edwin O., assignor to Abbott Machine Company, Chicago, Ill. Check-protector ..	448,705	Mar. 24	2347	{ 588 589 }	54	1591
Abbott, Fletcher M., Wellesley, Mass. Drying-reel for fishing-lines	459,669	Sept. 15	1790	450	56	1427
Abbott, Francis H., assignor of one-half to M. A. Abbott, Chrisney, Ind. Saw-gumming machine	444,870	Jan. 20	1436	373	54	297
Abbott, Henry, Newark, N. J. Tool for clamping type to type-bars	449,190	Mar. 31	3104	782	54	1743
Abbott, Henry, Newark, N. J. Platen for type-writing machines	449,191	Mar. 31	3105	783	54	1744
Abbott, Henry, Newark, N. J. Apparatus for recording measurement of time, space, or quantity	449,192	Mar. 31	3106	{ 783 784 }	54	1744
Abbott, Henry E. (See Abbott, William A. and H. E.)						
Abbott, John, Blackheath, England. Loading and unloading apparatus	453,851	June 9	1035	{ 270 271 }	55	1353
Abbott, Levi, Arlington, assignor of one-third to A. G. Minton, Boston, Mass. Means for operating lock-hinges	465,810	Dec. 22	2869	734	57	1711
Abbott Machine Company. (See Abbott, Edwin O., assignor.)						
Abbott, Martin A. (See Abbott, Francis H., assignor.)						
Abbott, Samuel E. (See Chisham, William R., assignor.)						
Abbott, W. L. (See Monday, Robert, assignor.)						
Abbott, Warren M., Boston, Mass., assignor to Domestic Hydrocarbon Heat Company, Kittery, Me. Vapor-burner	459,694	Sept. 15	1821	457	56	1433
Abbott, Warren M., assignor of one-half to H. K. Flagler, Boston, Mass. Vapor-burner ..	462,089	Oct. 27	2494	620	57	500
Abbott, William A. and H. E., Springfield, Ohio. Waxing-pad for sad-irons	456,686	July 28	2212	586	56	448
Abel, John H., London, England. Pneumatic door closer, check, and alarm	449,891	Apr. 7	367	93	55	72
Abell, Bernard M., New York, N. Y. Means for ornamenting sheet-metal articles	444,413	Jan. 13	683	179	54	143
Abell, Edmund J. (See Smith, Austin J., assignor.)						
Abell, George W., Indianapolis, Ind. Composition of matter	449,653	Apr. 7	1	.....	55	3
Abell, George W., Indianapolis, Ind. Composition of matter for wall-coverings	462,678	Nov. 10	733	.....	57	701
Abendroth Brothers. (See Fisher, George A., assignor.)						
Abendroth & Root Manufacturing Company. (See Hugentobler, Emil M., assignor.)						
Aberle, Oscar. (See Davis and Aberle.)						
Abernethy, Harry M., Newark, Ohio, assignor of one-half to H. H. Abernethy, Jr., Jersey City, N. J. Automatic switch	463,412	Nov. 17	1909	{ 498 499 }	57	937
Abernethy, Harry M., Newark, Ohio, assignor of one-half to H. H. Abernethy, Jr., Jersey City, N. J. Switch-stand	463,413	Nov. 17	1912	499	57	937
Abernethy, Hugh H., Jr. (See Abernethy, Harry M., assignor.)						
Abrahamson, Peter, San Francisco, Cal. Ventilator	454,195	June 16	1521	399	55	1454
Abrahamson, Peter, San Francisco, Cal. Fire-chamber ventilator	458,330	Aug. 25	2297	561	56	990
Abrams, Milton, and F. L. McGahan, Indianapolis, Ind. Sediment-trap for boilers	456,711	July 28	2255	597	56	456
Abrams, William B., Wells, N. Y. Hame attachment	450,550	Apr. 14	1362	336	55	269
Abresch, Charles, Milwaukee, Wis. Wagon	452,591	May 19	1856	467	55	940
Accumulator Company. (See Sellon, John S., assignor.)						
Accurate Time Stamp Company. (See Stahlberg, Charles, assignor.)						
Achenback, Lewis, <i>et al.</i> (See Dunn, John P., assignor.)						
Achor, Servetus T., Brooklyn, N. Y. Re-enforced paper box	450,211	Apr. 14	832	209	55	168
Achorn, Lowell F., Spann, Ga. Saw	465,951	Dec. 15	1647	419	57	1468

Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Acker, Benjamin D. (See Smith and Acker.)						
Ackerman, George W., South Milford, Ind. Plow attachment.....	454,606	June 23	2175	561	55	1584
Ackerman, William J., Malcom, Wis. Ox-yoke.....	448,104	Mar. 10	1351	346	54	1383
Ackermann, Friedrich, Brooklyn, N. Y. Pressure apparatus for beer-barrels.....	452,010	May 12	877	224	55	752
Ackerson, James B., Passaic, N. J. Sulphuric-acid concentrator.....	453,801	June 9	981	255	55	1342
Ackert, Charles H., et al. (See Emerson, Charles H., assignor.)						
Ackley, Philander H., Rolling Prairie, Ind. Bee-hive.....	463,674	Nov. 24	2326	610	57	1025
Acland, Francis E. D. (See Bate, Charles M., assignor.)	461,660	Oct. 20	1820	450	57	362
Acme Button Hole Attachment Company. (See Palmer, John H., assignor.)						
Acme Harvester Company. (See Kirk, Alden, and Steele, assignors.)						
Acme Harvester Company. (See Oliver, Doctor F., assignor.)						
Acme Harvester Company. (See Steele, Benjamin M., assignor.)						
Acme Liquid Fuel Company. (See Rogers and Baker, assignors.)						
Acme Railway Switch Company. (See Broach, George, assignor.)						
Acme Rule Company. (See Green, Henry, assignor.)						
Acorn Steam Boiler and Heating Company. (See Bosart, Timothy L., assignor.)						
Acorn Steam Boiler and Heating Company. (See Nesom, Thomas, assignor.)						
Actien-Gesellschaft für Anilin Fabrikation. (See Borgmann, Otto, assignor.)						
Actien-Gesellschaft für Anilin Fabrikation. (See Martius, Carl A., assignor.)						
Actien-Gesellschaft für Anilin Fabrikation. (See Schultz, Gustav, assignor.)						
Acton, John, New York, N. Y. Fluid-pressure regulator.....	444,263	Jan. 6	451	114	54	89
Adair, James, New York, N. Y. Instand.....	453,687	June 9	804	206	55	1308
Adam, Frederick, and J. Knapik, assignors to Blattner & Adam, St. Louis, Mo. Electric switch.....	450,551	Apr. 14	1362	336	55	289
Adami, Conrad. (See Tutts and Adami.)						
Adams, Albert L., Cedar Rapids, Iowa. Hammock-stretcher.....	451,009	Apr. 28	2131	527	55	437
Adams, Albert W., Pittsburg, Pa. Can-ventilator.....	451,198	Apr. 28	2430	600	55	495
Adams, Archibald D. and F. L., Prophetstown, Ill. Bolt.....	460,191	Sept. 29	2501	646	56	1594
Adams, Asa B., Worcester, Mass. Type-distributing holder.....	447,124	Feb. 24	2642	655 656	54	1052
Adams, Asa B., Worcester, Mass. Sash-fastener.....	452,823	May 26	2226	558	55	1022
Adams, Asa B., Worcester, Mass. Universal household machine.....	461,697	Oct. 20	1886	466	57	374
Adams, Bart S. (See Choen, Charles G., assignor.)						
Adams, Charles, and G. Macallan, London, England; said Adams assignor to said Macallan. Blast-pipe for locomotives.....	453,321	June 2	220	58	55	1189
Adams, Charles A., assignor of one-half to B. Hough, West Gardner, Mass. Wrench.....	454,896	June 30	2640	677	55	1678
Adams, Charles F. (See Gorenflo, Louis T., assignor.)						
Adams, Charles H., et al. (See Dutcher and Boyle, assignors.)						
Adams, Chauncey K., assignor to T. Trimble, Montreal, Canada. Ballot-paper or voting-ticket.....	448,403	Mar. 17	1864	469	54	1491
Adams, Clarence A., and F. B. Peters, Lincoln, Nebr. Spring attachment for chairs.....	452,686	May 19	2003	501	55	969
Adams, Cyril B. (See Cronin and Adams.)						
Adams, David S. (See Machin, Miller, assignor.)						
Adams, Edwin G., Cohoes, N. Y. Car-compiling.....	462,227	Nov. 3	3	1	57	553
Adams, Fred L. (See Adams, Archibald D. and F. L.)						
Adams, Fred L., assignor of one-half to J. F. Kilroy, Prophetstown, Ill. Checkrein-hook.....	444,264	Jan. 6	453	114	54	89
Adams, Fred L., assignor of one-half to H. A. Cleaveland, Prophetstown, Ill. Stove.....	460,192	Sept. 29	2592	646	56	1594
Adams, George E., Providence, R. I. Buckle.....	457,895	Aug. 18	1500	414	56	848
Adams, George E., Providence, R. I. Garment-supporter.....	461,601	Oct. 20	1721	421	57	344
Adams, George H., Hill, N. H. Knitting-machine needle.....	461,066	Oct. 13	804	205	57	162
Adams, George Q., Quincy, Ill., assignor to Adams Power Fence Machine Company. Reel for fence-making machines.....	445,296	Jan. 27	2106	545	54	435
Adams, George Q., Quincy, Ill., assignor to Adams Power Fence Machine Company. Roller-feet for power-fence machines.....	445,297	Jan. 27	2107	546	54	435
Adams, George W., Boston, Mass. Electric alarm.....	447,998	Mar. 10	1198	303 304	54	1352
Adams, George W., Malden, Mass. Time-lock.....	454,897	June 30	2641	678	55	1678
Adams, Henry A., Sandwich, Ill. Corn-sheller.....	459,196	Sept. 8	1023	250	56	1271
Adams, Henry A., Sandwich, Ill. Combined barrel and body cart.....	461,590	Oct. 20	1707	417	57	341
Adams, Horace B., Owego, N. Y. Dinner-pail.....	444,215	Jan. 6	389	95	54	76
Adams, Horace B., Owego, N. Y. Plant-duster.....	455,785	July 14	796	208	56	162
Adams, James A., Atlanta, Ga. Spring-motor.....	450,953	Apr. 21	2026	500	55	409
Adams, Joe A., Dresden, Tenn. Thill-support.....	455,678	July 7	610	160	56	118
Adams, John, assignor to A. Booth Packing Company, Baltimore, Md. Machine for sizing fruit.....	458,963	Sept. 1	644	158	56	1191
Adams, John A., Salyersville, Ky. Corn-sheller.....	456,460	July 21	1843	489	56	368
Adams, John B., Jr., Malden, N. Y. Corn-planter.....	463,931	Nov. 24	2734	709	57	1102
Adams, John F., Aledo, Ill. Churn.....	448,491	Mar. 17	2003	501	54	1517
Adams, John F., Seddon, Ala. Railway-track clamp.....	457,596	Aug. 11	1104	282	56	747
Adams, John Q., Marseilles, Ill. Windmill.....	454,196	June 16	1522	400	55	1454
Adams, John Q., Birmingham, Mo. Brick-machine.....	462,610	Nov. 3	612	132 153	57	669
Adams, John S., Elgin, Ill. Combined friction and positive clutch.....	460,625	Oct. 6	149	36	57	32
Adams, Joseph D., Indianapolis, Ind. Wheel adjustment for road-graders.....	462,679	Nov. 10	733	191	57	701
Adams, Joseph P., Ozark, Mo. Test-tram or leveling device for leveling or trammung rolls.....	446,764	Feb. 17	2041	509	54	929
Adams, Joseph W., assignor to T. A. Pearce, Philadelphia, Pa. Knit fabric.....	462,657	Nov. 3	679	172	57	682
Adams, Lizzie B. (See Adams and Maret, assignors.)						
Adams, Luther, Mattoon, Ill. Railway-rail connection.....	460,171	Sept. 29	2566	640	56	1590
Adams, Oliver, Larchmont, N. Y. Blind-fastening.....	462,187	Oct. 27	2656	665	57	530
Adams Power Fence Machine Company. (See Adams, George Q., assignor.)						
Adams, R. L. (See Davis, William H., assignor.)						
Adams, Robert, London, England. Door-spring.....	455,649	July 7	569	147 148	56	110
Adams, Robert L. (See Davis, William H., assignor.)						
Adams, Stephen J., Pittsburg, Pa. Pattern for tubular articles.....	455,142	June 30	3099	788	55	1767
Adams, Stephen J., Pittsburg, Pa. Sand-molding apparatus.....	455,143	June 30	3101	789	55	1767
Adams, Stephen J., Pittsburg, Pa. Molding apparatus.....	455,141	June 30	3106	789	55	1768
Adams, Stephen J., Pittsburg, Pa. Forming sand molds.....	455,145	June 30	3110	790	55	1769
Adams, Stephen J., Pittsburg, Pa. Pattern for gates and runners in sand molds.....	455,146	June 30	3112	790	55	1769
Adams, Stephen J., Pittsburg, Pa. Forming sand beds for molds.....	459,102	Sept. 8	880	212	56	1244
Adams, Stephen J., Pittsburg, Pa. Sand mold.....	459,103	Sept. 8	883	212	56	1245
Adams, Stephen J., Pittsburg, Pa. Mold for tubular articles.....	465,771	Dec. 22	2811	721	57	1700
Adams, Theodore M., assignor of one-half to Landon & Kent, Baltimore, Md. Gage for picture-mats.....	456,105	July 14	1263	332	56	249

Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Adams, Thomas B. (See Reed, James D. S., assignor.)						
Adams, Thomas E., Cleveland, Ohio, assignor to Brush Electric Company. Automatic brush-shifter for dynamo-electric machines	457,330	Aug. 4	649	170	53	654
Adams, Thomas E., Cleveland, Ohio, assignor to Brush Electric Company. Pole trolley and stand for electric street-railways	457,334	Aug. 11	691	177	56	667
Adams, Thomas E., Cleveland, Ohio, assignor to Brush Electric Company. Motor-car for electric railways	463,359	Nov. 17	1816	475	57	919
Adams, Thomas E., Cleveland, Ohio, assignor to Brush Electric Company. Hanger for trolley-wires	464,411	Dec. 1	627	154	57	1253
Adams, Walter G., Racine, Wis. Oat-clipping machine	458,138	Aug. 18	1967	510	56	921
Adams, Walter G., Racine, Wis. Bag-holder	460,698	Oct. 6	273	66	57	54
Adams, Walter G., assignor of one-half to E. H. Pease Manufacturing Company, Racine, Wis. Spout-alarm for grain-bins	456,667	July 28	2185	579	56	443
Adams, Walter S., and J. A. Brill, Philadelphia, Pa. Brake mechanism for cars	461,008	Oct. 13	721	186	57	147
Adams & Westlake Company. (See Giese, James A., assignor.)						
Adams, Willard G., Weedsport, N. Y. Rotary engine	456,351	July 21	1657	438	56	334
Adams, William C., Rochester, Mich. Thrashing-machine	463,883	Nov. 24	2658	692	57	1067
Adams, William I., and A. Rotzel, Kensington, Ill. Sliding gate for draw-bridges	449,022	Mar. 24	2833	719	54	1684
Adams, William J., Newton, Mass. Border-cutter	456,928	Aug. 4	1	1	56	533
Adams, William J., Newton, Mass. Turf-cutter	461,972	Oct. 27	2329	577	57	469
Adams & Williamson. (See Allgire and Williamson, assignors.)						
Adams, Willis, Jr., and J. Maret, Mount Vernon, Ky.; said Adams assignor to L. B. Adams. Apparatus for preserving fish alive	445,131	Jan. 20	1849	479	54	377
Adamson, Alexander, Dundee, Scotland. Apparatus for teaching music	451,010	Apr. 28	2132	527	55	437
Adant, Gustave, Brussels, Belgium. Manufacture of sugar	444,107	Jan. 6	199	49	54	41
Addis, Henry C., Council Bluffs, Iowa. Windmill-tower	460,337	Oct. 6	465	118	57	93
Addison, James, San Francisco, Cal. Tool for cutting holes and washers	453,767	June 9	928	241	55	1331
Addison, Joseph L., Quaker City, Ohio. Groove-cutting machine for oil or gas wells	449,459	Mar. 31	3576	904	54	1829
Adelsperger, Charles C., assignor to Star Slide Seat Company, Springfield, Ohio. Shifting seat for vehicles	466,211	Dec. 29	3535	{ 904 905 }	{ 57 57 }	{ 1848 1848 }
Adenauer, Friedrich. (See Koch and Adenauer.)						
Adler, Abraham S., Baltimore, Md. Foot-measuring machine	447,098	Feb. 24	2600	646	51	1044
Adler, Abraham S., Baltimore, Md. Flexible scale-measure	448,805	Mar. 24	2768	628	54	1621
Adler, Abraham S., Baltimore, Md. House-door letter-box	463,264	Nov. 17	1665	435	57	891
Adler, Abraham S., Baltimore, Md. Street letter-box	463,265	Nov. 17	1666	435	57	891
Adler, Dankmar. (See Armstrong, Charles G., assignor.)						
Adler, Henry, Allegheny, Pa. Metallic ceiling	469,283	Sept. 29	2739	682	56	1623
Adolph, Paul. (See Soblik, Max, assignor.)						
Adolphus, James M., assignor of one-half to Frommhold & Vaigtman, Chicago, Ill. Draft-regulator	456,528	July 21	1956	515	56	390
Adriance, Francis H., Poughkeepsie, N. Y. Wire fence	452,952	May 26	2441	615	55	1063
Adsit, George A., assignor to Curtis Manufacturing Company, Albion, N. Y. Seed-planter	463,021	Nov. 10	1266	328	57	806
Adsit, John O., et al. (See Severance, James R., assignor.)						
Adsit, Lewis G., Catskill, N. Y. Combined horse hoe and scraper	463,713	Nov. 24	2397	628	57	1039
Aenis, John, assignor to Standard Foundry and Manufacturing Company, Cleveland, Ohio. Roof-cresting	455,958	July 14	1061	278	56	210
Aeolian Organ and Music Company. (See Chase and Tracy, assignors.)						
Aeolian Organ and Music Company. (See Pain, Robert W., assignor.)						
Aeolian Organ and Music Company. (See Webber, William A., assignor.)						
Agee, Kennon, Magnolia, Ala. Copy-holder	447,651	Mar. 3	612	151	54	1233
Agney, Luella A., Freeport, Ill. Bread-raising cabinet	450,604	Apr. 21	1451	357	55	293
Agricola, William H. (See La Burt, John, assignor.)						
Ahlborn, George, St. Louis, Mo. Rubber wheel-tire	456,751	July 28	2539	616	56	470
Ahlstrom, Jenny, New York, N. Y. Combined eye-shade and head-shield	452,155	May 12	1151	291	55	798
Ahrbecker, Henry C., London, England. Piston meter	455,244	June 30	3264	828	55	1799
Ahrens, John H., Brooklyn, N. Y. Cash-register	449,395	Mar. 31	3464	{ 872 873 }	{ 54 54 }	{ 1808 1808 }
Aich, Hermann. (See Claus, Hubert, assignor.)						
Aiken, Frank D., et al. (See Driver, Charles H., assignor.)						
Aiken, Henry. (See Kennedy and Aiken.) (Reissue.)						
Aiken, Henry, Pittsburg, Pa. Rolling-mill	444,389	Jan. 6	637	165	51	125
Aiken, Henry, Pittsburg, Pa. Shears	448,192	Mar. 17	1503	383	51	1423
Aiken, Henry, Pittsburg, Pa. Mill appliance	448,623	Mar. 24	2223	{ 557 558 }	{ 54 54 }	{ 1567 1567 }
Aiken, Henry, Pittsburg, Pa. Rolling-mill	449,511	Mar. 31	3650	918	54	1845
Aiken, Henry, Pittsburg, Pa. Mill appliance	449,724	Apr. 7	122	31, 32	55	26
Aiken, Henry, Pittsburg, Pa. Crane	455,650	July 7	570	148	56	110
Aiken, Henry, Pittsburg, Pa. Apparatus for conveying and cooling metal plates	462,962	Nov. 10	1186	{ 307 308 }	{ 57 57 }	{ 789 789 }
Aiken, Henry, Pittsburg, Pa. Hydraulic valve	465,232	Dec. 15	1944	{ 495 496 }	{ 57 57 }	{ 1525 1525 }
Aiken, Henry, Pittsburg, Pa. Table for conveying and cooling metal plates	450,360	Apr. 14	107	{ 265 266 }	{ 55 55 }	{ 213 213 }
Aiken, Henry, Homestead, Pa. Machine for bending or straightening metal beams	453,605	June 9	673	175	55	1283
Aiken, Henry, Homestead, Pa. Brick-machine	459,878	Sept. 22	2118	{ 531 532 }	{ 56 56 }	{ 1498 1498 }
Aikins, Frederick T., Toronto, Canada. Mucilage-scraper	448,492	Mar. 17	2005	502	54	1517
Ainslie, Mark O., Cincinnati, Ohio. Reciprocating boat-paddle	461,067	Oct. 13	805	206	57	162
Ainsworth, Napoleon B., et al. (See Wiley, Edgar C., assignor.)						
Ainsworth, Perley, Rochester, N. Y. Water-meter	461,533	Oct. 20	1620	396	57	325
Ajax Lead Coating Company. (See Clamer, Francis J., assignor.)						
Akarman, John N., Newark, N. J. Sectional railway-chair	458,209	Aug. 25	2083	539	56	950
Akarman, John N., Newark, N. J. Preventing displacement in sectional railway-chairs	458,210	Aug. 25	2084	540	56	950
Aker, Arthur J., et al. (See Gilmore, Harmon, assignor.)						
Akester, William H., Fulham, England. Compound for frosting glass	445,528	Feb. 3	1		54	511
Akin, John F., Bath Springs, Tenn. Plow	453,688	June 9	806	206	55	1309
Akron Tool Company. (See Kraus, Jacob W., assignor.)						
Aktiebolaget Lactoserin, (Lactoserin Company, Limited.) (See Rehnström, Albert W., assignor.)						
Aktiebolaget Separator. (See Jönsson, Johan L., assignor.)						
Aktiebolaget Separator. (See Laval, Carl G. P. de, assignor.)						
Aktiebolaget Separator. (See Laval, Gustaf de, assignor.)						
Albanese, Giuseppe S., Orange, N. J. Insulator	465,961	Dec. 29	3123	801	57	1769

Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Albaux Coal Tar Dye and Chemical Company. (See Greville-Williams, Rupert, assignor.) (Reissne.)						
Albee, George, Susquehanna, Pa. Extension-ladder	460,419	Sept. 29	2939	735	56	1660
Alberger, Louis R., assignor to W. A. Perry and C. C. Worthington, New York, N. Y. Surface-condenser	447,285	Mar. 3	1	1	54	1119
Albert, Amos B. (See Cummins, Theodore, assignor.)						
Albert, Clay B., Carrollton, Mo. Clothes-line	457,335	Aug. 11	693	177	56	667
Albert, Charles E., Philadelphia, Pa. Elevator	454,246	June 16	1592	419	55	1468
Albert, Charles F., Philadelphia, Pa. Violin-rest	451,744	May 5	465	114	55	666
Albert, Henry, Crescent City, assignor of one-third to T. R. Hayes, Pasadena, Cal. Can-labeling machine	445,418	Jan. 27	2283	593	54	472
Albert, Henry, Crescent City, assignor of one-third to T. R. Hayes, Pasadena, Cal. Can-labeling machine	460,738	Oct. 6	329	80, 81	57	65
Albert, James W. (See Mead and Albert.)						
Albertson, Samuel. (See Champlin and Andrews, assignors.)						
Albin, Herman, and A. K. Erdman, Louisville, Ky. Bedstead-exhibitor	449,654	Apr. 7	1	1	55	3
Albrecht, Rudolf F., Tompkinsville, assignor to J. W. Scott, Brooklyn, N. Y. Approval-sheet for stamps	454,416	June 16	1863	487	55	1519
Albright, Adolph C., St. Louis, Mo. Type-writing-machine attachment	452,057	May 12	976	248	55	769
Albro, Charles E., Philadelphia, Pa. Elevator	453,457	June 2	450	115	55	1233
Albro, Charles E., Philadelphia, Pa. Lathe for turning cones and disks	456,076	July 14	1227	322	56	242
Albro, Harry C. (See Dellinger, John, assignor.)						
Albrook, Charles E., et al. (See Watkins, Orla H., assignor.)						
Allen, George I., Worcester, Mass. Absorption dynamometer or brake	464,949	Dec. 15	1451	365	57	1433
Alden, Horace A. (See Kirk, Alden, and Steele.)						
Alden, John D. (See Richards, William N., assignor.)						
Alden Type Machine Company. (See Low, Abbot A., assignor.)						
Alden Type Machine Company. (See Johnson and Low, assignors.)						
Aldenderfer, Eli. (See Christy and Aldenderfer.)						
Alderman, Charles N., Streator, Ill. Car-coupling	460,385	Sept. 29	2894	723	56	1652
Aldeos, David B. (See Henningway and Aldeos.)						
Aldrich, Addie, Cincinnati, Ohio. Reticule or pocket-book	444,414	Jan. 13	685	179	54	143
Aldrich, Albert T., Worcester, Mass. Combined cut-out and lightning-arrester	444,892	Jan. 20	1469	380	54	304
Aldrich, Frank. (See Hanson, Walter, assignor.)						
Aldrich, Fred H., Cadillac, Mich. Electric-light fixture	458,769	Sept. 1	329	80	56	1129
Aldrich, Fred W., Allegheny, Pa. Spike	452,892	May 26	2337	590	55	1042
Aldrich, George W., assignor of five-eighths to J. L. Spence, Brooklyn, N. Y. Street-washer box	447,503	Mar. 3	394	96	54	1192
Aldrich, Homer M., Battle Creek, Mich. Counter for presses or other machines	452,687	May 19	2004	501	55	970
Aldrich, James W., Binghamton, N. Y. Arm-rest	456,929	Aug. 4	2	1	56	533
Aldrich, Robert, Blackstone, assignor of two-thirds to J. J. and J. M. Warren, Worcester, Mass. Air-gun	459,732	Sept. 22	1889	477	56	1453
Aldrich, Roscoe H., assignor to Goulds Manufacturing Company, Seneca Falls, N. Y. Elevator mechanism	459,695	Sept. 15	1822	457	56	1434
Aldrich, Truman H., Cincinnati, Ohio. Secondary battery	451,445	May 5	1	1	55	579
Aldrich, William F. (See Morse, Henry T., assignor.)						
Aldridge, Andrew P., North Fork, Va. Dropper's guide for corn-planters	449,100	Mar. 31	2957	749	54	1717
Aldridge, James G. W., Southampton, England. Berth and seat for ships or railway-cars	447,020	Feb. 24	2477	616	54	1019
Alexander, Ewin, Lake City, Minn. Sash-cord guide	456,461	July 21	1844	489	56	368
Alexander, Frank E. (See De Roberts, Charles, assignor.)						
Alexander, Frederick G., et al. (See Swett, Sullivan C., assignor.)						
Alexander, George, Jamaica, and R. Johnson, Brooklyn, N. Y. Clothes-rack	465,551	Dec. 22	2482	633	57	1636
Alexander, John L. and W. E. Hazlerig, Ind. Boiler-cleaner	462,522	Nov. 3	470	115	57	640
Alexander, John N. (See Tyler, Morris S., assignor.)						
Alexander, John S., Auburn, Mo. Vent for buckets	458,883	Sept. 1	531	129	56	1166
Alexander, Louisa E., and W. B. Hatch, Elmira, N. Y. Rotary screen and sifter	459,940	Sept. 22	2214	557	56	1515
Alexander, Marcellus S., Birmingham, Ala. Nut-lock	449,023	Mar. 24	2834	719	54	1684
Alexander, Oliver G. (See Legg, Alexander, and Legg.)						
Alexander, Phoebe H. (See Field, Stephen D., assignor.)						
Alexander, Thomson H. (See Howard, Henry, assignor.)						
Alexander, William E. (See Alexander, John L. and W. E.)						
Alexander, William R. H. (See Wigginton, John R., assignor.)						
Alexander, William W. (See Pettay, Charles H., assignor.)						
Alford, William J. (See Wright, Thomas W., assignor.)						
Alfred, James W., Pittsburg, Pa. Lifting-jack	461,880	Oct. 27	2180	538	57	440
Alfson, Andrew, and H. Jansen; said Alfson assignor to L. Arnesen, Chicago, Ill. Side-locking galley-stick	463,325	Nov. 17	1758	460	57	908
Algonquin Manufacturing Company. (See Chase, Oliver R., assignor.)						
Allabach, Lazarns D. (See Van Horn and Allabach.)						
Allain, Edouard H., Créteil, France. Burner for heating apparatus	452,352	May 19	1479	367	55	871
Allain, Peter, Rutland, assignor to himself, and E. Merrill, Proctor, Vt. Hanger for car-doors	457,691	Aug. 11	1238	318	56	773
Allardye, Archibald A., Toronto, Canada. Baby-carriage	446,726	Feb. 17	1985	495	54	917
Allasia, Francesco, Turin, Italy. Musical instrument	462,963	Nov. 10	1187	308	57	789
Albee, Alexander C., Wakefield, assignor of one-half to W. F. Savage, Lynn, Mass. Molders' flask-clamp	450,820	Apr. 21	1827	443	55	370
Alcott, Amos E., Milwaukee, Wis. Locomotive-exhaust nozzle	465,651	Dec. 22	2638	673	57	1665
Allday, Edward, Egham, England. Shade-holder	454,675	June 23	2277	584	55	1602
Allen, Aaron B., Pueblo, Colo. Car-coupling	464,000	Dec. 1	1	1	57	1137
Allen, Albert F., assignor of two-thirds to C. E. Walker and J. West, Chicago, Ill. Type-founder's matrix	449,062	Mar. 24	2896	735	54	1696
Allen, Alexander W., Temple, Ga. Fender	462,188	Oct. 27	2656	665	57	531
Allen, Austin. (See Kennedy, James H., assignor.)						
Allen, Benjamin B., Nashville, Tenn. Reamer	450,879	Apr. 21	1920	471	55	388
Allen, Benjamin B., Nashville, Tenn. Reamer	456,462	July 21	1845	489	56	368
Allen, Benjamin B., assignor to himself, W. H. Wilson, and E. Weisbaum, Hanford, Cal. Whiffletree	448,105	Mar. 10	1352	346	54	1383
Allen, Boyd W., Boston, Mass. Electric switch	459,465	Sept. 15	1451	365	56	1364
Allen, Charles, Rock Island, Ill. Machine for boring post-holes	458,262	Sept. 8	1119	273	56	1290
Allen, Charles, Rock Island, Ill. Barrel-stand	464,487	Dec. 8	741	181	57	1285
Allen, Charles F., Deming, N. Mex. Ter. Pump	453,781	June 9	955	247	55	1337
Allen, Charles O., and W. H. Wellman, Pullman, Ill. Passenger-car	451,995	May 12	715	181	55	721
Allen, Edward B., Terre Haute, Ind. Dish-washing machine	460,420	Sept. 29	2940	735	56	1660

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Allen, Edward B., Portland, Me., assignor to Singer Manufacturing Company of New Jersey. Machine for sewing and beating out seams	449,101	Mar. 31	2959	749	54	1717
Allen, Edward E., <i>et al.</i> (See Kauffelt, John E., assignor.)						
Allen, Elbridge G., New Haven, Conn. Sleeping-car	445,870	Feb. 3	588	144	54	627
Allen, Elbridge G., New Haven, Conn. Sleeping-car	446,315	Feb. 10	1346	328	54	778
Allen, Ethan E., <i>et al.</i> (See Chandler, Albert F., assignor.)						
Allen, Fannie D. (See McCabe, Thomas W. R., assignor.)						
Allen, Fred H., Auburn, Me. Plate-printing press	445,150	Jan. 27	1895	489	54	395
Allen, George, Franklin, Pa. Oil-well pumping apparatus	460,807	Oct. 6	426	106	57	85
Allen, George, and J. Sandhofer, Auburn, Cal. Vehicle-tongue support	456,321	July 21	1611	426	56	325
Allen, George E., Hartford, Conn. Combined protractor and bevel	460,421	Sept. 29	2941	735	56	1660
Allen, George H., <i>et al.</i> (See Glazier, George W., assignor.)						
Allen, George H., <i>et al.</i> (See Tonnas, Louis N., assignor.)						
Allen, George H., Clinton, N. Y. Press for printing on rollers	460,172	Sept. 29	2567	640	56	1590
Allen, George H., Clinton, N. Y. Hand printing-roller	460,173	Sept. 29	2568	640	56	1590
Allen, George L., Kalamazoo, Mich. Can-opener	463,131	Nov. 17	1454	377	57	851
Allen, George M., Beloit, Wis. Mechanical movement	463,977	Nov. 24	2802	726	57	1115
Allen, George M., Beloit, Wis. Gearing for windmills	463,978	Nov. 24	2804	727	57	1116
Allen, George M., Beloit, Wis. Gearing for windmills	463,979	Nov. 24	2805	727	57	1116
Allen, George M., Beloit, Wis. Gearing for windmills	463,980	Nov. 24	2805	728	57	1116
Allen, George N. (See Stockton, Robert, assignor.)						
Allen, George W., near Corsicana, Tex. Cotton-chopper	460,546	Oct. 6	1	1	57	3
Allen, George W., and J. S. Lindsey, Louisburg, Mo. Kitchen-cabinet	452,207	May 12	1236	312	55	815
Allen, Harrison, <i>et al.</i> (See Pierce, Jonathan A., assignor.)						
Allen, Herbert F., and D. N. Gibbs, Grafton, Mass. Boot or shoe	445,529	Feb. 3	2	1	54	511
Allen, Horace R., and J. A. Minturn, Indianapolis, Ind. Refrigerator	461,378	Oct. 13	1306	330	57	260
Allen, Ira S., Detroit, Mich. Combined chair and life-preserver	462,291	Nov. 3	113	28	57	573
Allen, Jeremiah M., assignor to Hartford Steam Boiler Inspection and Insurance Company, Hartford, Conn. Steam-boiler setting	448,576	Mar. 17	2124	532	54	1541
Allen, John F., assignor of three-fourths to W. R. Beal, New York, N. Y. Process of and apparatus for the manufacture of gas	453,752	June 9	902	235	55	1326
Allen, John H. (See Morton, Edwin W., assignor.)						
Allen, John H. (See Richter, Paul E., assignor.)						
Allen, Joseph, and S. Goulden, Newark, N. J. Door-bell	450,347	Apr. 14	1064	261	55	210
Allen, L. C. (See Hunt, Franklin B., assignor.)						
Allen, Leonard L., Rochester, N. Y. Picker-operating mechanism for looms	464,908	Dec. 8	1379	{ 347 348 }	57	1407
Allen, Nelson R., Bridgeport, Conn., assignor to D. C. Hall, New York, N. Y. Device for filling surgical bandages, &c.	462,974	Nov. 10	1205	314	57	793
Allen, Orron. (See Haynes and Allen.)						
Allen, Owen F., <i>et al.</i> (See Chandler, Albert F., assignor.)						
Allen, Raymond, and H. Ross, Revelstoke, British Columbia, Canada. Machine for applying nuts in operations on track-irons	461,727	Oct. 20	1924	476	57	382
Allen, Samuel L., Cinnaminson, N. J. Combined harrow, cultivator, and pulverizer	463,609	Nov. 24	2223	587	57	1007
Allen, Samuel L., Cinnaminson, N. J. Cultivator	463,610	Nov. 24	2225	{ 587 588 }	57	1007
Allen, Samuel L., Cinnaminson, N. J. Furrow, hiller, and ridger combined	463,611	Nov. 24	2227	588	57	1008
Allen, Samuel L., Cinnaminson, N. J. Cultivator-tooth	463,612	Nov. 24	2228	588	57	1008
Allen, Samuel L., Cinnaminson, N. J. Grass-edger	464,950	Dec. 15	1454	{ 365 366 367 }	57	1433
Allen, Samuel L., Cinnaminson, N. J. Cultivator	466,282	Dec. 29	3651	{ 933 934 }	57	1870
Allen, Thomas G., Jr., Ferguson, Mo., W. L. Sachtleben, Alton, Ill., and J. F. Walters, Bayswater, England. Luggage-carrier for cycles	444,642	Jan. 13	1032	968	54	212
Allen, William D. (See McGaffey, Ives W., assignor.)						
Allen, William H., Zanesville, Ohio. Metallic hub for vehicles	458,992	Sept. 8	695	171	56	1209
Allen, William P., Wyoming, assignor to Little Giant Power Converter Company, Cincinnati, Ohio. Automatic clutch for driving mechanism	464,447	Dec. 1	674	165	57	1263
Allen, William W., St. Paul, Minn. Safety-brake for cars	455,296	July 7	1	1	56	3
Allen, William W., St. Paul, Minn. Car-brake	463,695	Nov. 24	2266	619	57	1032
Allesson, John, St. Paul, Minn. Hoisting-machine	460,491	Sept. 29	3014	763	56	1681
Alley, Stephen, Glasgow, Scotland, assignor, by mesne assignments, to National Hollow Brake Beam Company, Chicago, Ill. Trussed bar for railway-brakes	461,776	Oct. 20	2010	495	57	398
Allfree, James B., Indianapolis, Ind. Automatic turning and boring mill	462,757	Nov. 10	843	{ 221 222 223 }	57	723
Allgemeine Elektrizitäts-Gesellschaft. (See Dolivo-Dobrowsky, Michael von, assignor.)						
Allgire, James R., and D. W. Williamson, assignors to Adams & Williamson, Indianapolis, Ind. Barrel-machine	452,330	May 12	1438	355	55	853
Allgoever, Augustus, assignor of one-half to G. Jeshurun, New York, N. Y. Woven-wire mattress	451,704	May 5	398	97	55	655
Alliance Twine Company. (See Lowry, George A., assignor.)						
Alliger, Hasbrouck, Rendout, N. Y. Cover for receptacles	458,264	Aug. 25	2191	535	56	969
Allin, Samuel S., London, England. Automatic machine for delivering articles in exchange for coin	449,024	Mar. 24	2835	{ 719 720 721 722 }	54	1684
Alling, L. E. (See Harsin, Charles D., assignor.)						
Allington & Curtis Manufacturing Company. (See Kutsche, Oswald, assignor.)						
Allis, John, Lowell, N. Y. Watering-trough for stock	444,324	Jan. 6	537	139	54	107
Allis, John, Lowell, N. Y. Apparatus for supplying water for animals	465,038	Dec. 15	1626	414	57	1465
Allis, Thomas V. (See Jordan, Edmund, assignor.)						
Allis, Thomas V. (See Templin, Joseph H., assignor.)						
Allis, Thomas V., New York, N. Y. Barbed metallic fencing	446,557	Feb. 17	1731	425	54	868
Allis, Thomas V., New York, N. Y. Barbed metallic fencing	446,558	Feb. 17	1732	425	54	868
Allis, Thomas V., New York, N. Y. Die used in making sheet-metal fencing	455,667	July 14	920	240	56	185
Allis, Thomas V., New York, N. Y. Wire-rod reel	458,760	Sept. 1	320	78	56	1126
Allis, Thomas V., New York, N. Y. Rod-mill plant	461,900	Oct. 27	2207	{ 544 545 546 }	57	446
Allis, Thomas V., New York, N. Y. Rolling-mill plant	461,901	Oct. 27	2213	{ 547 548 549 }	57	447
Allis, Thomas V., New York, N. Y. Rolling-machine for wire rods and strips	462,388	Nov. 3	273	67, 68	57	603

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Allis, Thomas V., New York, N. Y. Rolling-mill for rods or wire	462,676	Nov. 3	715	<div>184 185 186 187 188 189</div>	57	688
Allis, Thomas V., New York, N. Y. Hoop or band rolling mill	463,266	Nov. 17	1667	435	57	891
Allis, Thomas V., New York, N. Y. Wire-rolling mill	463,696	Nov. 24	2367	<div>619 620</div>	57	1033
Allis, Thomas V., New York, N. Y. Machine for rolling wire rods or strips	463,697	Nov. 24	2370	<div>620 621</div>	57	1033
Allison, C. R., <i>et al.</i> (See Welch, Abram T., assignor.)						
Allison, George E., St. Louis, Mo. Show-case	463,932	Nov. 24	2737	<div>709 710</div>	57	1102
Allison, James E. (See Allison, Mathew H., assignor.)						
Allison, Jesse H., New Vienna, Ohio. Broom-holder	444,998	Jan. 20	1651	423	54	339
Allison, John W., <i>et al.</i> (See Meadowcroft, John R., assignor.)						
Allison, Jo. W., trustee. (See Crowder, Walter A., assignor.)						
Allison Manufacturing Company. (See Sylvester, Davis L., assignor.)						
Allison, Mathew H., assignor of one-half to J. E. Allison, Nashville, Tenn. Portable fare-receiver	451,611	May 5	250	60	55	627
Allison, Oscar W., Rochester, N. Y. Cigarette drawing-band for cigarette-machines	456,976	Aug. 4	84	20	56	549
Allison, Oscar W., Rochester, N. Y. Cigarette-cutter	459,115	Sept. 8	899	216	56	1248
Allison, Oscar W., Rochester, N. Y. Cigarette-drawing band for cigarette-machines	459,116	Sept. 8	901	216	56	1248
Allison, Oscar W., Rochester, N. Y. Drawing mechanism for cigarette-machines	459,117	Sept. 8	902	216	56	1248
Allison, Oscar W., Rochester, N. Y. Filler-forming mechanism for cigarette-machines	459,118	Sept. 8	903	217	56	1248
Allison, Oscar W., Rochester, N. Y. Cigarette-machine	459,119	Sept. 8	904	<div>217 218</div>	56	1249
Allison, Robert, <i>et al.</i> (See Welch, Abram T., assignor.)						
Allison, William D. (See Roberts, Allison, and Leonard.)						
Allman, Isaac F., New York, N. Y. Gas-engine	453,071	May 26	2633	665	55	1099
Allum, John E. (See Hindman, James W., assignor.)						
Almstead, Gaston W., and W. L. Ford, Bridgeport, Conn. Bed-spring	460,276	Sept. 29	2729	680	56	1621
Almy, Darwin, Providence, R. I. Steam-generator	459,538	Sept. 15	1566	<div>390 391</div>	56	1385
Alpe, Robert, Birchfields, England. Metallic-spoke machine	465,745	Dec. 22	2777	709	57	1693
Alpers, August A., Brooklyn, N. Y. Skirt-belt	458,148	Aug. 25	1989	515	56	933
Alsdurf, Elmer A., Spartansburg, Pa. Regulator	450,719	Apr. 21	1663	401	55	340
Alston, John P., Renovo, Pa. Brick-press	450,903	Apr. 21	1951	479	55	394
Alston, John S., Dover, N. J. Apparatus for heating railway-cars	445,709	Feb. 3	320	84, 85	54	575
Alter, Moriz, Vienna, Austria-Hungary. Hygienic seat for baths	451,510	June 23	2006	520	55	1554
Altman, George J., Swansea, Mass. Obtaining motive power	448,621	Mar. 17	2214	554	54	1558
Althen, Dan, <i>et al.</i> (See Dunn, John P., assignor.)						
Althouse, Milo J., <i>et al.</i> (See Bunker, Harman, assignor.)						
Althouse, Milo J., Waupun, Wis. Wind-wheel	456,787	July 28	2388	629	56	479
Altman, David, Macon, Ga. Car-coupling	450,904	Apr. 21	1953	479	55	394
Altman, Emil, assignor to J. H. Parish, New Haven, Conn. Suspenders	455,959	July 14	1063	279	56	211
Altpeter, Robert C. (See Bradley and Altpeter.)						
Alton, George H., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Socket for incandescent lamps	450,605	Apr. 21	1452	357	55	293
Alton, George H., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Trolley for electric railways	463,765	Nov. 24	2467	645	57	1052
Alvord, Clinton, Worcester, Mass. Loom	447,652	Mar. 3	612	151	54	1233
Alvord, Kitina M., Huntington, Mass. Draft attachment for sleighs	457,692	Aug. 11	1240	318	56	773
Ambjörn, Pierre, Paris, France. Cartridge	460,905	Oct. 6	577	146	57	113
Ambjörn, Pierre, Paris, France. Cartridge	462,611	Nov. 3	614	153	57	669
Ambler, Abraham. (See Eastwood and Ambler.)						
Ambler, Augustin I., assignor to R. N. Ambler, Washington, D. C. Electric railway-brake	461,770	Oct. 20	1994	<div>493 494</div>	57	396
Ambler, Roseline N. (See Ambler, Augustin I., assignor.)						
Ambler, Russell P., De Funiak Springs, Fla. Lamp-wick	463,961	Nov. 24	2773	719	57	1111
Ambler, William, Bradford, England. Apparatus for casting	462,422	Nov. 3	329	81	57	613
Ambler, William, Bradford, England. Apparatus for casting	462,423	Nov. 3	331	81, 82	57	613
Ambrose, John, Youngstown, Ohio. Torpedo-boat	464,909	Dec. 8	1381	348	57	1408
Ambrose, John, and J. W. Haddick, Grenada, Miss. Horse-power	457,627	Aug. 11	1148	293	56	756
Ambrose, John F. (See Hume, Francis S., assignor.)						
Ambruster, William, St. Louis, Mo. Mane-holder for horses	445,485	Jan. 27	2351	619	54	490
Amelang, Charles A., Baltimore, Md. Cutting patterns for garments	466,111	Dec. 29	3378	863	57	1819
Ament, Elzie and H. L., Rogers Park, Ill. Screw-thread-cutting machine	454,197	June 16	1525	<div>400 401</div>	55	1455
Ament, Herbert L. (See Ament, Elzie and H. L.)						
American and Continental Sanitas Company. (See Kingzett, Charles T., assignor.)						
American Bell Telephone Company. (See Beach, Franklin G., assignor.)						
American Bell Telephone Company. (See Berliner, Emile, assignor.)						
American Bell Telephone Company. (See Carty, John J., assignor.)						
American Bell Telephone Company. (See Hayes, Hammond V., assignor.)						
American Bell Telephone Company. (See Hayes and Hibbard, assignors.)						
American Bell Telephone Company. (See Hayes and Sears, assignors.)						
American Bell Telephone Company. (See Hayes and White, assignors.)						
American Bell Telephone Company. (See Jacques, William W., assignor.)						
American Bell Telephone Company. (See White, Anthony C., assignor.)						
American Biscuit and Manufacturing Company. (See Kavanaugh, Thomas P., assignor.)						
American Carrier Rocket Company. (See Cunningham, Patrick, assignor.)						
American Cash Register Company. (See Herr, Homer A., assignor.)						
American Cigar Vender Company. (See Wheeler, Orrin A., assignor.)						
American Decorative Company. (See Sears, Edward S., assignor.)						
American Electric Elevator Company. (See Reynolds, George H., assignor.)						
American Electric Exercise Machine Company. (See Gardiner, Joseph B., assignor.)						
American Electric Fence Company. (See Wilson, David H., assignor.)						
American Electric Machinery Company. (See Elkins, William H., assignor.)						
American Electric Railway Signal Company. (See Rosenfield, William W., assignor.)						
American Engine Company. (See Smith, Elmer S., assignor.)						
American Engineering Company. (See Woods, Granville T., assignor.)						

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American Fuel Economizer Company. (See Burpee, George H., assignor.) (Reissue.)						
American Heeling Machine Company. (See Pope, Joseph H., assignor.)						
American Ice Machine Company. (See Winkler, Ehregott T., assignor.)						
American Indicator and Improvement Company. (See Kneffer, John, assignor.)						
American Injector Company. (See Trix, John, assignor.)						
American Lead Pencil Company. (See Perry, Enoch W., Jr., assignor.)						
American Loop Fabric Company. (See Urbahn, Alwill, assignor.)						
American Machine Company. (See Foster, George N., assignor.)						
American Magnetic Electric Company. (See Humans, William, assignor.)						
American Manufacturing Export Company. (See Bugg, Owen T., assignor.)						
American Marble and Toy Manufacturing Company. (See Dyke, Samuel C., assignor.)						
American Oil Projectile Company. (See Moore, Everett D., assignor.)						
American Ore Machinery Company. (See Young and Parson, assignors.)						
American Patents Company. (See Malings, Charles, assignor.)						
American Patents Company. (See Reach, Robert, assignor.)						
American Phosphate and Chemical Company. (See Glaser, Charles, assignor.)						
American Playing Card Company. (See Woodbury, Edward, assignor.)						
American Postal Machine Company. (See Ethridge, Frank N., assignor.)						
American Postal Machines Company. (See Leavitt, Thomas, assignor.)						
American Press Association. (See Cummings, John R., assignor.)						
American Pump Manufacturing Company. (See Smith, Clayton P., assignor.)						
American Railway Tricycle Company. (See Brady, Frank, assignor.)						
American Roll Paper Company. (See Cornelison, John H., assignor.)						
American Roll Paper Company. (See Ehrlich, Leo, assignor.)						
American Roll Paper Company. (See Friede, Samuel M., assignor.)						
American Roll Paper Company. (See Knight, Edward S., assignor.)						
American Roll Paper Company. (See Kriekhaus, Frederick, assignor.)						
American Roll Paper Company. (See Pickles, Charles K., assignor.)						
American Roll Paper Company. (See Pickles and Hinchman, assignors.)						
American Roll Paper Company. (See Rein, Gustavus, assignor.)						
American Roll Paper Company. (See Ross, Abbott Q., assignor.)						
American Roll Paper Company. (See Seymour, John B., Jr., assignor.)						
American Roll Paper Company. (See Stewart and Livengood, assignors.)						
American Roller Bearing Company. (See Cooke, Ernest W., assignor.)						
American Safety Envelope Company. (See Thomas, William E., assignor.)						
American Saw Company. (See Brooke, William E., assignor.)						
American Screw Company. (See Rogers, Charles D., assignor.)						
American Semaphore Company. (See Stitzel and Weimedel, assignors.)						
American Ship Windlass Company. (See Whitney, Edwin H., assignor.)						
American Shoe Tip Company. (See Merrill, Hollis W., assignor.)						
American Soda Fountain Company. (See Ormerod, John, assignor.)						
American Soda Fountain Company. (See Puffer, Alvin D., assignor.)						
American Sprinkler Head Company. (See Turner, Thomas G., assignor.)						
American Steel Barge Company. (See McDougall, Alexander, assignor.)						
American Steel Pole and Post Company. (See Thorp, Thomas J., assignor.)						
American Steel Wheel Company. (See Richards, William G., assignor.)						
American Store Service Company. (See Kenney, Thomas M., assignor.)						
American Telephone and Telegraph Company. (See Hibbard, Angus S., assignor.)						
American Waltham Watch Company. (See Duncan, Harrie E., assignor.)						
American Waltham Watch Company. (See Eldridge, Daniel W., assignor.)						
American Waltham Watch Company. (See Mulloy, Nathan P., assignor.)						
American Waltham Watch Company. (See Wetherbee, Frank W., assignor.)						
American Whip Company. (See Mullen, Henry, assignor.)						
American Writing Machine Company. (See Fairfield, John M., assignor.)						
American Writing Machine Company. (See Fairfield and Francis, assignors.)						
American Writing Machine Company. (See Filstead, David W., assignor.)						
American Writing Machine Company. (See Francis, Graham I., assignor.)						
American Writing Machine Company. (See Mason, Jean D., assignor.)						
American Writing Machine Company. (See Schulte, John H., assignor.)						
Ames, Franklin, Chicago, Ill. Apparatus for sewing carpets	454,404	June 16	1832	{ 479 480 }	{ 55 57 }	1513 1194
Ames, Franklin, Chicago, Ill. Apparatus for sewing carpets	464,211	Dec. 1	321	78	57	1194
Ames, Franklin, Chicago, Ill. Carpet clamp and stretcher for sewing-machines	464,212	Dec. 1	324	79	57	1195
Ames, John, Jr. (See Bonner, Joseph C., assignor.)						
Ames, Oakes A. (See Cowley, James T., assignor.)						
Ames, Samuel F., Berea, Ky. Fence rail and post	455,147	June 30	3114	791	55	1769
Ames, William H., Easton, Mass. Hydrocarbon-burner	465,746	Dec. 22	2778	709	57	1693
Ames, William H., and M. Grier, St. Louis, Mo. Fan	449,025	Mar. 24	2842	723	54	1685
Amet, Edward H., Chicago, Ill. Speed-regulator for motors	462,228	Nov. 3	5	1	57	554
Amos, George W., assignor to S. S. Miles, Chicago, Ill. Spring-hinge	446,617	Feb. 17	1809	{ 447 448 }	{ 54 54 }	883 1085
Amos, William, Providence, R. I. Car-switch	448,570	Mar. 17	2116	530	54	1539
Ampacker, Samuel, Muddy Creek Forks, Pa. Cow-milker	458,611	Sept. 1	97	22	56	1085
Amstutz, Noah S., Cleveland, Ohio. Process of and apparatus for electrically reproducing irregular or undulating surfaces	448,404	Mar. 17	1865	469	54	1491
Amoyt, Onesime C., San Francisco, Cal. Holder for articles of table-ware	457,101	Aug. 4	262	68	56	583
Anable, Henry B., assignor to G. H. Treadwell, Albany, N. Y. Interchangeable die	444,682	Jan. 13	1099	284	54	225
Anawalt, Harry F., Kokomo, Ind. Coffee-pot handle	465,747	Dec. 22	2780	710	57	1694
Anck, John M., Philadelphia, Pa. Bicycle-support	447,125	Feb. 24	2644	656	54	1052
Anderegg, Joseph, New York, N. Y. Fabric-holding frame for embroidering-machines	464,668	Dec. 8	1017	254	57	1339
Anderson, Alexander, Woolwich, England. Hardening or tempering projectiles or shells and apparatus therefor	461,698	Oct. 20	1886	467	57	375
Anderson, Alexander, Somerville, Mass. Clothes-drier	462,424	Nov. 3	333	82	57	614
Anderson, Alfred H., La Crosse, Wis. Collar for flannel shirts	463,884	Nov. 24	2657	692	57	1087
Anderson, Andrew B., Savannah, Ga. Fruit-gatherer	454,320	Jan. 16	1705	445	55	1190
Anderson, Andrew R., New York, N. Y. Carpet or oil-cloth stretcher	444,415	Jan. 13	686	179	54	143
Anderson, Andy G., Sioux City, Iowa. Folding stool	451,102	Apr. 28	2253	558	55	462
Anderson, Annie L., et al., administrators. (See Anderson, Frank.)						
Anderson, August G. (See Anderson, Olof W., assignor.)						
Anderson Band Cutter and Self Feeder Company. (See Anderson, Oliver, assignor.)						
Anderson, Boyd, Texarkana, Tex. Electrode for secondary batteries	454,818	June 23	2505	644	55	1645
Anderson Bros. (See Stanly, Merritt F., assignor.)						
Anderson, Carl F., Brooklyn, N. Y. Paper-box machine	464,628	Dec. 8	951	234	57	1326

Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. gr.	Vol.	Page.
Anderson, Carl G. (See Lemp and Anderson.)						
Anderson, Carl W. and J. Chicago, Ill. Musical instrument	457,143	Aug. 4	321	83	56	595
Anderson, Charles, assignor to H. C. Hart Manufacturing Company, Detroit, Mich. Water-closet lid	456,007	July 14	1134	297	56	224
Anderson, Charles, assignor to South Bend Iron Works, South Bend, Ind. Draft-equalizer	465,310	Dec. 15	2075	530	57	1548
Anderson, Charles A., Caseyville, Ky. Gate	447,441	Mar. 3	279	70	54	1170
Anderson, Charles A., Symco, Wis. Punching and shearing machine	456,211	July 21	1430	379	56	291
Anderson, Charles C., Washington, D. C., assignor of one-third to E. G. Wheeler. Street-sweeping machine	457,693	Aug. 11	1241	318	56	774
Anderson, Charles T., Tampico, Wash. Baling-press	457,177	Aug. 4	377	96	56	605
Anderson, Charles T., Clarksburg, Md. Mail-bag fastening	458,770	Sept. 1	332	80	56	1129
Anderson, Charles T., Clarksburg, Md. Mail-bag deliverer	459,190	Sept. 8	1013	248	56	1269
Anderson, Edward J. (See Erick and Anderson.)						
Anderson, Frank. (See Sellers, William, assignor.)						
Anderson, Frank, deceased, Peekskill, N. Y.; A. L., G. H., and H. Anderson, administrators. Telegraphy	449,655	Apr. 7	2	1	55	3
Anderson, Frank S. (See Sigsbee, Hayward, and Anderson.)						
Anderson, George, <i>et al.</i> (See Neuburger, Markus, assignor.)						
Anderson, George, Madras, India. Plant for elevating trusses or girders	454,444	June 23	1901	{ 495 496 }	55	1535
Anderson, George H., Battle Creek, Mich. Basket stand or holder	451,795	May 5	537	132	55	680
Anderson, George R., assignor of one-half to D. Richardson, Roanoke, Va. Spark-arrester	449,512	Mar. 31	3654	918	54	1845
Anderson, George V., Wilmington, Del. Machine for staking skins	457,331	Aug. 4	653	171	56	654
Anderson, George W., St. Louis, Mo. House and street letter-box	465,311	Dec. 15	2076	531	57	1519
Anderson, Gilbert H., <i>et al.</i> , administrators. (See Anderson, Frank.)						
Anderson, Gustaf W. (See Sundeen, Molander, Anderson, and Carlsen.)						
Anderson, Hamilton A., and C. C. McClung, Joliet, Ill. Feed-water heater and purifier	453,072	May 26	2635	665	55	1100
Anderson, Hans J., Lake Mills, Wis. Butter-worker	444,270	Jan. 6	461	{ 117 118 }	54	91
Anderson, Harry A. (See Page and Anderson.)						
Anderson, Harry N., assignor to W. S. Rowe, Boston, Mass. Cigar-blank	444,624	Jan. 13	1003	261	54	207
Anderson, Henry B., St. Louis, Mo. Letter-box	444,842	Dec. 8	1283	322	57	1390
Anderson, Henry C., assignor of one-half to W. P. Garvin, Whitesborough, Tex. Animal-trap	451,745	May 5	466	114	55	667
Anderson, Homer, <i>et al.</i> , administrators. (See Anderson, Frank.)						
Anderson, James A. (See Wolford, James A., assignor.)						
Anderson, James C. (See Hull and Anderson.)						
Anderson, James J., Chicago, Ill., assignor to Anderson Rail Joint Company, of Illinois, N. E. Brosseau, and E. D. Norton, Chicago, Ill. Rail-joint for use on railways	463,130	Nov. 17	1453	377	57	851
Anderson, John Hickson, N. D. Hay-fork	459,263	Sept. 8	1121	273	56	1291
Anderson, John, Oban, county of Argyle, Scotland. Apparatus for ventilating railway and other carriages	454,392	June 16	1815	474	55	1509
Anderson, John E., Bloomington, Ill. Bicycle-support	461,806	Oct. 27	2063	509	57	417
Anderson, John H., Moorhead, Minn. Dampening and copying appliance	458,513	Aug. 25	2597	632	56	1046
Anderson, John W., Lancaster, Pa. Oven for baking japanned ware	459,432	Sept. 15	1403	350	56	1355
Anderson, John W., and S. B. Cox, Lancaster, Pa.; said Cox assignor to said Anderson. Fifth-wheel	460,495	Sept. 29	3052	766	56	1682
Anderson, Joseph. (See Anderson, Carl W. and J.)						
Anderson, Josiah B., assignor to G. H. Heath, Boston, Mass. Folding bed	449,892	Apr. 7	368	93, 94	55	73
Anderson, Lauritz, Chicago, Ill. Electric body-wear	464,691	Dec. 8	1058	263	57	1346
Anderson, Lee, assignor of one-third to T. Broad and J. Martin, Paris, Tex. Hame-fastener	463,292	Nov. 17	1594	415	57	877
Anderson, Lee, assignor of one-third to T. Broad and J. Martin, Paris, Tex. Hame	463,223	Nov. 17	1594	416	57	877
Anderson, Nickalaus, Marysville, Cal. Portable elevator	449,026	Mar. 24	2443	723	54	1686
Anderson, Oliver, assignor to Anderson Band Cutter and Self Feeder Company, Racine, Wis. Band-cutter and feeder	444,478	Jan. 13	777	{ 202 203 }	54	163
Anderson, Olof, Defiance, Ohio. Washing-machine	463,850	Nov. 24	2596	675	57	1077
Anderson, Olof W., assignor of one-half to A. G. Anderson, Moorhead, Minn. Adding-machine	465,811	Dec. 22	2869	734	57	1712
Anderson, Pears E. (See Lind and Anderson.)						
Anderson, R. Napier. (See Baldwin, Frank S., assignor.)						
Anderson Rail Joint Company <i>et al.</i> (See Anderson, James J., assignor.)						
Anderson, Robert, assignor of one-half to E. W. Blackhall, Toronto, Canada. Envelope-machine	458,296	Aug. 25	2242	548	56	979
Anderson, Thomas, Watertown, Mass. Tobacco-pipe	458,149	Aug. 25	1989	515	56	933
Anderson, Valerius D., Cleveland, Ohio. Press	464,599	Dec. 8	906	222	57	1318
Anderson, Valerius D., Cleveland, Ohio. Press	464,600	Dec. 8	906	{ 222 223 }	57	1318
Anderson, William, Chicago, Ill. Lamp-support for pianos	451,251	Apr. 28	2514	620	55	512
Anderson, William, Chicago, Ill. Music-rack for organs and upright pianos	463,183	Nov. 17	1536	401	57	865
Anderson, William, Marlborough, Mass. Dip-pipe valve	462,462	Nov. 3	389	96	57	624
Anderson, William, Erith, assignor to Revolving Purifier Company, Limited, London, England. Apparatus for purifying water	444,772	Jan. 13	1244	323	54	251
Anderson, William, Erith, county of Kent, assignor to Revolving Purifier Company, Limited, London, England. Apparatus for purifying water	464,669	Dec. 8	1018	255	57	1339
Anderson, William B. (See Fant, Anderson, and Richard.)						
Anderson, William B., <i>et al.</i> (See Nickum, George S., assignor.)						
Anderson, William E., Frewsburg, N. Y. Combined plow and potato-digger	450,128	Apr. 14	711	179	55	145
Anderson, William E., Frewsburg, N. Y. Sled-shoe	463,132	Nov. 17	1454	377	57	851
Anderson, William E. P. (See Bates, Andrew J., assignor.)						
Anderson, William F. (See Gnstafson, Axel R., assignor.)						
Anderson, William H., Riverside, Cal. Tag and parcel tier	454,105	June 16	1386	363	55	1428
Anderson, William J., Brooklyn, N. Y. Gunning-machine	451,011	Apr. 28	2135	528	55	437
Anderson, William N., San Rafael, Cal. Means for operating elevator-doors	450,905	Apr. 21	1954	479	55	395
Anderson, William N., San Rafael, Cal. Elevator safety device	455,148	June 30	3115	791	55	1769
Anderson, William R., Clarksburg, Tenn. Car-coupling	456,930	Aug. 4	3	1	56	533
Anderson, Oscar, Newark, N. J. Butter-making machine	456,529	July 21	1958	515	56	390
Andreasen, Tønnes, Cardiff, England. Ship's side light	454,198	June 16	1528	{ 401 402 }	55	1455
Andreen, Gustave, Omaha, Nebr. Shutter-worker	449,656	Apr. 7	5	1	55	4
Andreon, E. L., <i>et al.</i> (See Wahlert, Henry A., assignor.)						
Andres, Albert, Nieder Walluf, Germany. Lasting-machine	463,022	Nov. 10	1267	{ 328 329 }	57	806

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Andrew, Arthur C., <i>et al.</i> (See Church, Dwight M., assignor.)						
Andrews, Adolphus Y., Philadelphia, Pa. Pocket-book	445,216	Jan. 27	1995	514	54	414
Andrews, Adolphus Y., Philadelphia, Pa. Pocket-book	449,791	Apr. 7	233	59	55	47
Andrews, Albert A., Whitinsville, Mass. Top roll	455,434	July 7	219	56	56	45
Andrews, Alfred H., <i>et al.</i> (See Jackman, Stephen E., assignor.)						
Andrews, Benjamin. (See Mann and Andrews.)						
Andrews & Company, A. H. (See Kenfield, Joel W., assignor.)						
Andrews, Constant A., <i>et al.</i> (See Morrell, Robert, assignor.)						
Andrews, David C. (See Seery, James F., assignor.)						
Andrews, David H., Boston, Mass. Telescopic draw-bridge	452,630	May 19	1920	482	55	953
Andrews, Donald, Lockport, N. Y. Heating and ventilating buildings	445,486	Jan. 27	2382	619	54	490
Andrews, Emery, Kennebunk, Me., assignor to Leatheroid Manufacturing Company, of Maine. Waterproofed parchment-paper	460,768	Oct. 6	371	91	57	73
Andrews, Francis E. (See Champlin and Andrews.)	458,840	Sept. 1	454		56	1152
Andrews, Fred, and R. H. Day, Minneapolis, Minn. Elevator-signal	459,452	Sept. 15	1433	360	56	1360
Andrews, George, Ashford, England. Animal-trap	465,011	Dec. 15	1581	403	57	1457
Andrews, George F., Riverside, Cal. Extensible tree-prop	445,151	Jan. 27	1896	489	54	395
Andrews, Hamilton E., <i>et al.</i> (See Harrison, Leonard S., assignor.)						
Andrews, Harry, 25 New Road, Woolwich, county of Kent, and J. A. Norton, 49 Curtain Road, county of Middlesex, England, assignors of one-half to E. W. Creecy, Washington, D. C. Range-finding and sighting apparatus	444,406	Jan. 6	665	173	54	131
Andrews, Herbert L., <i>et al.</i> (See Jackman, Stephen E., assignor.)						
Andrews, J. Milford. (See Copeland, David W., assignor.)						
Andrews, James M. (See Andrews, Marion A., assignor.)						
Andrews, Joseph D. F., Westminster, England. Electric conductor	451,605	May 5	240	57	55	625
Andrews, Joseph D. F., Westminster, England. Combined coupling and cut-out	452,173	May 12	1188	300	55	805
Andrews, Lewis P., St. Louis, Mo. Filter	461,303	Oct. 13	1174	299	57	235
Andrews, Marion A., assignor of one-half to J. M. Andrews, Syracuse, N. Y. Car-wheel	447,531	Mar. 3	439	107	54	1200
Andrews, Marion A., assignor of one-half to J. M. Andrews, Syracuse, N. Y. Journal-bearing	448,624	Mar. 21	2226	558	54	1567
Andrews, Marion A., assignor of one-half to J. M. Andrews, Syracuse, N. Y. Journal-bearing	448,871	Mar. 24	2615	657	54	1641
Andrews, Marion A., assignor of one-half to J. M. Andrews, Syracuse, N. Y. Anti-friction journal-bearing	449,893	Apr. 7	370	94	55	73
Andrews, Sidney F. (See Brown, Fred H., assignor.)						
Andrews, Wallace C., New York, N. Y. Method of transportation	449,102	Mar. 31	2960	750	54	1718
Andrews, William S., assignor to Edison General Electric Company, New York, N. Y. Electric snap-switch	465,511	Dec. 22	2410	616	57	1622
Andrews, William S., and A. K. Warren, assignors to Edison General Electric Company, New York, N. Y. Rheostat	465,512	Dec. 22	2411	616	57	1622
Andross, George, Hartford, Conn. Eyeglass	452,824	May 26	2227	558	55	1022
Andross, Henry C., Rochester, N. Y. Revolving book-case	449,657	Apr. 7	6	1	55	4
Andrus, Duane P., St. Louis, Mo. Electric belt	449,345	Mar. 31	3371	850	54	1790
Andrus, Edwin B. (See Welton, Andrus, and Pine.)						
Andrus, Marion J., St. Louis, Mo. Dowel-pin	456,391	July 21	1732	458	56	347
Andrus, Rolla L. (See Wooster and Andrus.)						
Angell, Albert, East Orange, N. J. Attachment for fish-hooks	456,931	Aug. 4	4	1	56	533
Angell, Albert, East Orange, assignor of two-thirds to J. O. Ward, Orange, and W. Huntington, Montclair, N. J. Hemp-brake	418,493	Mar. 17	2006	502	54	1518
Angell, Charles E., Salt Lake City, Utah Ter. Sash-fastener	453,295	June 9	1094	286	55	1363
Angell, Charles E., Salt Lake City, Utah Ter. Bed-clothes fastener	454,695	June 23	2306	591	55	1609
Angell, Edwin E. (See Burton and Angell.)						
Angell, Edwin E., Somerville, Mass., assignor to Electrical Forging Company, of Maine. Apparatus for making railway-spikes	454,697	June 23	2308	592	55	1610
Angell, Edwin E., Somerville, Mass., assignor to Electrical Forging Company, of Maine. Method of and apparatus for heating bars by electricity	454,698	June 23	2310	594	55	1610
Angell, Edwin E., Somerville, Mass., assignor to Electrical Forging Company, of Maine. Art of and apparatus for heating metal articles by electricity	466,131	Dec. 29	3420	875	57	1827
Angell, Edwin E., Somerville, Mass., assignor to Electrical Forging Company, of Maine. Electric forge	466,132	Dec. 29	3424	877	57	1827
Angell, Edwin E., Somerville, Mass., assignor to Electrical Forging Company, of Maine. Electric forge	466,133	Dec. 29	3425	877	57	1828
Angell, Edwin E., Somerville, and S. Porter, Boston, Mass., assignors to Electrical Forging Company, of Maine. Making spikes	454,696	June 23	2307	592	55	1610
Angell, George. (See Strom, Olaf, assignor.)						
Angerer, Victor, Philadelphia, Pa. Actuating device for car-brakes	463,433	Nov. 17	1934	502	57	942
Angerer, Victor, assignor to W. Wharton, Jr., and Company, Incorporated, Philadelphia, Pa. Street-railway crossing	449,433	Mar. 31	3533	880	54	1822
Angerer, Victor, assignor to W. Wharton, Jr., and Company, Incorporated, Philadelphia, Pa. Rail-chair	453,458	June 2	452	115	55	1233
Angerstein, John F., Perdido, Tex. Car-coupling	450,348	Apr. 14	1065	262	55	210
Angier, Oscar M. (See Wilder, Frank E., assignor.)						
Anglin, John T., Craven's Landing, Tenn. Gate	461,807	Oct. 27	2064	509	57	417
Angus, Charles. (See Poe and Angus.)						
Angus, Charles. (See Simmons and Angus.)						
Angus, Charles, M. S. Simmons, and J. R. Nangle, Albany, N. Y. Cash-register	455,916	July 14	995	259	56	199
Annable, Warren W., assignor of two-thirds to F. A. Baldwin and V. M. Tuthill, Grand Rapids, Mich. Saw-swage	458,841	Sept. 1	455	109	56	1152
Anness, Albert, and W. M. Ring, assignors of one-third to W. T. Bowers, Liberty, Ind. Thill-coupling	453,138	May 26	2742	691	55	1121
Anshero, Thomas, assignor of one-half to J. Little, Glasgow, Scotland. Kite	464,412	Dec. 1	629	154	57	1253
Ansley, Alanson, Geneva, N. Y. Insect-catcher	453,792	June 9	971	252	55	1340
Ansley, Frederick, Brooklyn, assignor to Standard Folding Bed Company, New York, N. Y. Folding bed	456,932	Aug. 4	5	2	56	534
Ansley, George W., and J. H. Boyd, Medical Lake, Wash.; said Boyd assignor to said Ansley. Clothes-drier	447,551	Mar. 3	465	115	54	1205
Anslyn, Jacob H., Stanberry, Mo. Double-acting force-pump	455,979	July 14	1089	286	56	215
Anthony, Aaron, Springfield, Ill. Plastering composition	456,297	July 21	1578		56	318
Anthony, Alfred. (See Mumford and Anthony.)						
Anthony, Henry B. (See McCoy, Alonzo B., assignor.)						
Anthony, Jesse, and A. Everitt, Albuquerque, N. Mex. Ter. Bicycle	461,699	Oct. 20	1889	467	57	375

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Anthony, Mark, San Francisco, Cal. Divider attachment for mowers	446,316	Feb. 10	1347	328	54	779
Anthony, Mark, Berkeley, assignor to Golden Gate Fancet Company, San Francisco, Cal. Fancet for barrels	449,513	Mar. 31	3655	919	54	1846
Anthony, Mark, Berkeley, assignor of one-half to W. C. Savage, Oakland, Cal. Automatic vent	460,671	Oct. 6	218	56	57	45
Anthony, William A., Manchester, Conn. Electric motor	444,416	Jan. 13	687	179	54	144
Anthony, William B., Cetronia, Pa. Grain-scourer	454,159	June 16	1470	326	55	1444
Antrim, Elias A. (See Antrim, William L. and E. A.)						
Antrim, William L. and E. A., Davenport, Iowa. Car-brake	456,130	July 21	1303	343	56	267
Antrobus, Edward F., Arnold, Ill. Ticket-register	462,072	Oct. 27	2468	612	57	495
Apgar, Andrew J., assignor of one-half to D. Stonehouse, Grand Rapids, Mich. Churn-dasher	461,410	Oct. 13	1360	343	57	271
Apgar, Theodore H., Bound Brook, N. J. Nut-lock	461,515	Oct. 20	1595	389	57	320
Appel, Johannes, Fair Haven, Ill. Journal-bearing	453,826	June 9	1010	263	55	1348
Apple, Charles S., Bellaire, Ohio. Sash-holder	452,463	May 19	1668	418	55	905
Applegate, Alonzo M., Reynoldsville, Pa. Door-plate	465,513	Dec. 22	2412	616	57	1623
Applegate, Ambrose H., Phillipsburg, N. J. Latch	456,008	July 14	1135	297	56	224
Applegate, William H., Atlantic, Iowa, assignor to International Electric Railway Company, Chicago, Ill. Electric railway	465,613	Dec. 22	2580	656	57	1651
Appelquist, Charles J., assignor of one-half to N. T. Holte, Ellendale, N. D. Anti-friction hub	446,409	Feb. 10	1496	369	54	809
Appelquist, Charles J., Ellendale, N. D., assignor of one-half to J. D. Skone, Carver, Minn. Fire-escape	460,938	Oct. 13	625	161	57	129
Appleton Manufacturing Company. (See Search, Casper F., assignor.)						
Appleton, Robert M., Boston, Mass. Stocking	449,925	Apr. 7	421	105	55	82
Appleton, Robert M., Boston, Mass. Sock or stocking	454,634	June 23	2219	571	55	1591
Appleton, William H., New York, N. Y. Ice-making and refrigerating machine	458,440	Aug. 25	2475	603	56	1023
Appleyard, Arthur B., Boston, assignor to H. L. Millis, trustee, Millis, Mass. Electric soldering-iron	455,010	June 30	2874	730	55	1723
Arbegust, Thomas O. (See Mesker and Arbegust.)						
Arbitt, John, Des Moines, Iowa. Smoking-pipe	447,653	Mar. 3	614	151	54	1234
Arbitt, John, Des Moines, Iowa. Air-ship	462,612	Nov. 3	614	{ 153 154 }	57	669
Arcade Manufacturing Company. (See Morgan, Charles, assignor.)						
Archer, Frank, and A. S. Bowley, London, England, assignors to Overman Wheel Company, Chicopee Falls, Mass. Velocipede	447,099	Feb. 24	2603	646	54	1045
Archer, Frank W., et al. (See Balch, Frederick A. and R. W., assignors.)						
Archer, George W., assignor to Archer Manufacturing Company, Rochester, N. Y. Foot-rest for chairs	459,182	Sept. 8	1004	245	56	1267
Archer, George W., assignor to Archer Manufacturing Company, Rochester, N. Y. Dental chair	463,348	Nov. 17	1797	{ 470 471 }	57	915
Archer, John, Radcliffe, England. Doctor employed in the printing of textile fabrics	447,126	Feb. 24	2645	656	54	1052
Archer Manufacturing Company. (See Archer, George W., assignor.)						
Archibald, Henry C., and J. F. Snediker, Philadelphia, Pa.; said Snediker assignor to said Archibald. Suppository-mold	452,743	May 19	2101	528	55	988
Arday, Robert, assignor to D. Wistar, Philadelphia, Pa. Umbrella-runner	458,884	Sept. 1	532	129	56	1167
Aregood, George H. (See Aregood, John W. and G. H.)						
Aregood, John W. and G. H., Washington, D. C. Brick and tile cutting machine	466,145	Dec. 29	3441	881	57	1831
Arenchbas, Joseph, New Orleans, La. Arm-rest for guitars	446,806	Feb. 17	2106	524	54	943
Argabite, G. W., et al. (See Hartigan, Joseph F., assignor.)						
Argerbright, Daniel, Troy, Ohio. Carriage-curtain attachment	448,106	Mar. 10	1353	346	54	1384
Arkansas Democrat Company. (See White, Thomas M., assignor.)						
Arkell, James, Canajoharie, N. Y. Machine for making tubular bag-blanks	447,065	Feb. 24	2557	634	54	1035
Arl, Heinrich, Nuremberg, Germany. Electric-conductor connection	446,655	Feb. 17	1873	464	54	896
Arlington Manufacturing Company. (See Schmidt, William, assignor.)						
Armit, Robert H., assignor of one-half to T. McCulloch, London, England. Machine-gun	446,807	Feb. 17	2106	524	54	943
Armitage, George T., assignor to C. T. Baker, Philadelphia, Pa. Apparatus for utilizing exhaust-steam	465,331	Dec. 15	2108	538	57	1554
Armistead, Thomas E., Mazomanie, Wis., assignor of one-half to W. H. Merritt, New York, N. Y. Puzzle	448,577	Mar. 17	2125	532	54	1541
Armleder, Otto, et al. (See Peirce, Almy L., assignor.)						
Armour, Jonathan O. (See Bouchard, John, assignor.)						
Armour, Jonathan O. (See Coleman, Arnold D., assignor.)						
Armour, Marlin & Co. (See Davidson, John M., assignor.)						
Armour, Perley P., Burlington, Wis. Horse-collar fastener	444,625	Jan. 13	1004	262	54	207
Armour, Robert J. (See Huntington and Armour.)						
Armour, Robert J., Newark, N. J. Lantern	458,354	Aug. 25	2338	570	56	998
Armstrong, Alfred W., London, England. Magic lantern	457,694	Aug. 11	1243	{ 319 320 321 }	56	774
Armstrong, Alice, Noblesville, Ind. Sash-fastener	464,413	Dec. 1	631	155	57	1254
Armstrong, Charles A., Pawnee Rock, Kans. Attachment for cultivators	463,933	Nov. 24	2738	710	57	1103
Armstrong, Charles D., Pittsburg, Pa. Cork-grinding machine	447,860	Mar. 10	965	242	54	1308
Armstrong, Charles G. (See Cutter and Armstrong.)						
Armstrong, Charles G., Chicago, Ill. Switch-actuating mechanism for electric motors	465,404	Dec. 15	2234	573	57	1578
Armstrong, Charles G., assignor of one-half to D. Adler, Chicago, Ill. Signaling device for elevators	462,834	Nov. 10	976	{ 253 254 }	57	749
Armstrong, Charles G., assignor of one-half to D. Adler, Chicago, Ill. Electrical indicator for elevators	442,835	Nov. 10	980	254	57	749
Armstrong, Frederic N., assignor to Smith & Richardson, Minneapolis, Minn. Gang-edger	445,647	Feb. 3	207	55	54	553
Armstrong, George E., New York, N. Y. Compounds of rosin	462,229	Nov. 3	5		57	554
Armstrong, George E., New York, N. Y. Educing and degumming fibrous material	464,056	Dec. 1	68		57	1150
Armstrong, Harry, Fidelity, Ill. Toe-weight for horses	457,502	Aug. 11	962	244	56	719
Armstrong, Henry, et al. (See Grant, Daniel, assignor.)						
Armstrong, Henry C., D. E. Bigelow, and G. L. Osborn, Ashland, Wis. Kitchen-cabinet	448,494	Mar. 17	2007	502	54	1518
Armstrong, Louis E., Fort Dodge, Iowa. Display-rack	448,811	Mar. 24	2517	630	54	1623
Armstrong Manufacturing Company. (See Cash, Arthur W., assignor.)						
Armstrong, Mitchell & Co., W. G. (See Vavasour, Josiah, assignor.)						
Armstrong, Samuel H. (See Myers and Armstrong.)						
Armstrong, William F., Philadelphia, Pa. Music sheet or book holder	458,009	Aug. 18	1784	466	56	885
Armstrong, William H. (See Fidler and Armstrong.)						
Arnd, Julius. (See Wyland, William E., assignor.)						
Arnmann, Wilhelm, Hamburg, Germany. Pitching-machine	466,027	Dec. 29	3258	{ 830 831 }	57	1794

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Arnesen, Louis. (See Alfson and Jansen, assignors.)						
Arnett, Robert C., Fredericktown, Mo. Device for taking nails out of kegs	465,312	Dec. 15	2078	531	57	1549
Arnett, William D., Caldwell, Idaho. Machine for destroying sage-brush	444,417	Jan. 13	689	180	54	144
Arnett, William D., Caldwell, Idaho. Machine for destroying sage-brush and other plants.	459,971	Sept. 22	2255	566	56	1522
Arney, Frank J., assignor to H. T. Buie, Chicago, Ill. Velocipede-sled	459,850	Sept. 22	2069	520	56	1488
Arnold, Addison, <i>et al.</i> (See Arnold, Oliver, assignor.)						
Arnold, Alfred E., Marrickville, near Sydney, New South Wales. Making artificial leather.	454,835	June 30	2535	.....	55	1659
Arnold, Amos W. C., <i>et al.</i> (See Hollingworth, Louis, assignor.)						
Arnold, Anna M. (See Arnold, Satterlee, assignor.)						
Arnold, Benjamin, East Greenwich, R. I. Endless-chain elevator	465,313	Dec. 15	2079	531	57	1549
Arnold, Bion J., Chicago, Ill. Pulley-connecting device	463,675	Nov. 24	2327	{ 610 611	57	1026
Arnold, Clarence W., assignor to E. Brown, trustee, Worcester, Mass. Fringe-making machine	451,440	Apr. 28	2799	{ 692 693	55	567
Arnold, Clarence W., assignor to E. Brown, trustee, Worcester, Mass. Fringe-making machine	451,441	Apr. 28	2805	{ 694 695	55	567
Arnold, Craig R., Chester, Pa. Electric-arc lamp	455,087	June 30	3007	{ 764 765	55	1750
Arnold, Craig R., Sharon Hill, Pa. Electric-car brake	457,067	Aug. 4	215	52	56	574
Arnold, Craig R., Sharon Hill, Pa. Switch for series dynamo-electric machines	460,245	Sept. 29	2670	665	56	1610
Arnold, Craig R., Sharon Hill, Pa. Cut-out	464,548	Dec. 8	833	205	57	1303
Arnold, Craig R., Philadelphia, Pa. Armature-winding for dynamo-electric machines	464,547	Dec. 8	831	{ 204 205	57	1302
Arnold, George W., Toronto, Canada. Hay-press	465,772	Dec. 22	2813	722	57	1700
Arnold, Gustav, Brooklyn, N. Y., assignor of one-half to C. Hille, Hoboken, N. J. Brush for lithographic stipple-work	454,321	June 16	1707	445	55	1490
Arnold, Henry H., Rockland, Mass. Channeling-machine	458,331	Aug. 25	2299	{ 561 562	56	990
Arnold, Horace L. (See Smith and Arnold.)						
Arnold, Horace L., Brooklyn, N. Y., assignor, by mesne assignments, of one-half to F. W. Roebeling, Trenton, N. J. Binding books	449,751	Apr. 7	165	40	55	33
Arnold, Leonard G., Menasha, Wis. Car-brake	446,504	Feb. 17	1651	403	54	852
Arnold, Matthew, San Francisco, Cal. Riveting-machine	454,199	June 16	1529	402	55	1456
Arnold, Matthew, San Francisco, Cal. Slat-fastener for belts	461,177	Oct. 13	968	249	57	192
Arnold, Oliver, Leicester, assignor of one-half to W. Richardson and A. Arnold, Worcester, Mass. Wire-cutter	447,999	Mar. 10	1202	305	54	1352
Arnold, Oliver, assignor to E. Brown, trustee, Worcester, Mass. Fringe-making machine.	451,423	Apr. 28	2769	{ 684 685	55	560
Arnold, Phineas, Canal Dover, Ohio. Anti-friction bearing	444,311	Jan. 6	518	135	54	104
Arnold, Phineas, Canal Dover, Ohio. Drier-car	453,953	June 9	1172	306	55	1380
Arnold, Rouse H. (See Guinnip, Arthur B., assignor.)						
Arnold, Samuel G., Chester, Conn. Combination-tool	454,017	June 16	1267	329	55	1405
Arnold, Samuel S., Toronto, Canada. Axle-bearing	461,728	Oct. 20	1926	476	57	382
Arnold, Samuel S., assignor of one-half to S. W. McKeown, Toronto, Canada. Combined caster and spring corner-protector for trunks	450,349	Apr. 14	1066	262	55	211
Arnold, Satterlee, assignor to A. M. Arnold, Montclair, N. J. Shaft-bearing table-leg	446,576	Feb. 17	1754	432	54	873
Arnold, Thomas L., Brooklyn, N. Y. Automatic double topping-lift	445,530	Feb. 3	2	1	54	511
Arnold, Walter, Sank Rapids, Minn. Rock-drilling machine	458,612	Sept. 1	99	22	56	1085
Arnold, Whiting, New York, N. Y. Fruit-picker's ladder	445,487	Jan. 27	2384	620	54	490
Arnold, Willie H., assignor to B. L. and H. H. Reynolds, West Bangor, N. Y. Wagon-brake	464,057	Dec. 1	71	19	57	1150
Arnold, Charles, Berwick, Ohio. Kneeling-bench	446,577	Feb. 17	1755	432	54	873
Arnot, William D., Athol, Mass. Combination-tool	456,189	July 21	1398	371	56	285
Arp, Peter A. (See Passmore and Arp.)						
Arringdale, Richard H. L., Radford, Va. Automatic fan	463,089	Nov. 10	1374	355	57	827
Arrington, James C. and W. N. Teshomongo, assignors of one-half to C. A. Hancock, Caddo, Indian Ter. Combined plow and pulverizer	448,770	Mar. 24	2458	{ 614 615	54	1611
Arrington, Willis N. (See Arrington, James C. and W. N.)						
Art Embossing Machine Company. (See Berner, Frederick, Jr., assignor.)						
Art Embossing Machine Company. (See Berner, Fredrich, Jr., assignor.) (Reissue.)						
Arter, Augustus C. (See Miles and Arter.)						
Arthur, James, Jersey City, N. J. Hoisting-machine	459,986	Sept. 22	2274	571	56	1526
Arvidson, Pier N. (See Van Orman, Clayton M., assignor.)						
Asbell, Albert, Galesburg, Mo. Car-coupling	457,241	Aug. 4	487	129	56	624
Ash, John E., Carthage, assignor of one-half to C. A. Santmyer, Cincinnati, Ohio. Lawn-mower	444,643	Jan. 13	1033	269	54	212
Ashbaugh, John I., assignor of one-half to D. G. Curtis, Chattanooga, Tenn. Electric heater.	447,143	Feb. 24	2705	670	54	1062
Ashby, Louisa, Lafayette, Ind. Manufacture of mattresses, pillows, &c.	454,445	June 23	1904	497	55	1535
Ashby, Sarah M., Lincoln, Neb. School pencil and sponge holder	463,434	Nov. 17	1938	506	57	943
Ashby, Theodore J., and A. D. Melton, Sebrree, Ky. Press	461,304	Oct. 13	1176	300	57	235
Ashe, Thomas F., <i>et al.</i> (See Watkins, Edwin D., assignor.)						
Ashford, Fred. E., <i>et al.</i> (See Norwood, Richard W., assignor.)						
Ashford, Thomas B., Kingston, N. C. Trousers-protector	448,599	Mar. 17	2171	542	54	1549
Ashley, Frank M., assignor to himself and J. J. Ashley, Brooklyn, N. Y. Alarm for steam-generators	445,488	Jan. 27	2385	620	54	491
Ashley, John F., Pelican, La. Baling-press	458,043	Aug. 18	1820	477	56	894
Ashley, John J. (See Ashley, Frank M., assignor.)						
Ashley, Thomas C. (See Bartholomew, Albert W., assignor.)						
Ashton, David, Sheffield, England. Grinding-machine	451,192	Apr. 28	2422	{ 598 599	55	493
Ashton, Herbert F. (See Willson, Walter V. H., assignor.)						
Ashton, John. (See Moorhouse and Ashton.)						
Ashton, William H., Seward, Nebr. Meat-chopping machine	454,699	June 23	2313	595	55	1611
Ashwell, William H., St. Louis, Mo. Coin-operated machine	452,068	May 12	998	253	55	772
Ashworth, Joel T., assignor of one-half to J. G. Ross, Richmond, Va. Tobacco gum or retainer	448,746	Mar. 24	2422	606	54	1605
Ashworth, Joseph T. (See Murdock and Ashworth.)						
Ashworth, Nicholas S., <i>et al.</i> (See Warburton, Edward A., assignor.)						
Ashworth, Richard J., assignor to Waterbury Manufacturing Company, Waterbury, Conn. Iron or steel point ferrule	452,987	May 26	2499	633	55	1074
Ashworth, Robert, Providence, R. I. Driving mechanism for carding-engine calendars or delivery rollers	455,088	June 30	3010	765	55	1750
Ashworth, Robert, St. Cloud, Minn. Derrick-shed	461,465	Oct. 20	1456	{ 365 366	57	296

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Ashworth, Robert, St. Cloud, Minn. Derrick.....	461,516	Oct. 20	1596	389	57	320
Askew, Thomas E., St. Paul, Minn. Car-coupling.....	450,129	Apr. 14	715	179	55	146
Asmns, Edward G., Wauwatosa, Wis. Knockdown table.....	456,752	July 28	2340	{ 616 617 }	56	471
Asmus, Edward G., Wauwatosa, assignor to J. A. Zinns, Milwaukee, Wis. Sad-iron.....	449,842	Apr. 7	305	79	55	60
Asmus, Henry, Pine City, Minn. Tire-heating furnace.....	451,103	Apr. 28	2254	558	55	463
Aspden, James, Camden, N. J. Separable boat.....	449,241	Mar. 31	3176	801	54	1757
Aspinall, James, Plymouth, assignor of one-half to C. F. Brown and A. W. Crossley, Boston, Mass. Stopping mechanism for twine-halling machines.....	454,991	June 30	2837	722	55	1716
Assheton, William, Baltimore, Md. Combined cash drawer and recorder.....	445,489	Jan. 27	2386	621	54	491
Assmann, Franz A., East Orange, N. J. Sheet-metal can.....	451,355	Apr. 28	2669	661	55	542
Atchison, William J., Crawfordsville, Ind. Sash-holder.....	458,139	Aug. 18	1968	510	56	921
Atherton, Robert. (See Scheffler, Theodore, assignor.)						
Athey, Isaac H., assignor to Traveller's Pocket Fire Escape Company, Marion, Ark. Fire-escape.....	456,281	July 21	1543	410	56	312
Athey, Isaac H., assignor to Traveller's Pocket Fire Escape Company, Chicago, Ill. Fire-escape.....	456,282	July 21	1545	410	56	313
Atkin, Ralph, Painesville, Ohio. Pipe-wrench.....	464,238	Dec. 1	363	88	57	1202
Atkins, Charles H., Palmer, Mass. Magnetic separator for paper-pulp.....	454,555	June 23	2068	535	55	1566
Atkins, Charles H., Palmer, Mass. Direct-acting pumping-engine.....	456,131	July 21	1304	343	56	267
Atkinson, Charles W. (See Murphy and Atkinson.)						
Atkinson, Francis F., assignor of one-third to W. H. Bellamy, trustee, New York, N. Y. Ball.....	456,920	July 28	2619		56	522
Atkinson, James, London, England. Internal-combustion heat-engine.....	454,936	June 30	2730	{ 696 697 }	55	1695
Atkinson, Joseph, assignor of one-half to W. R. Dorsett, St. Louis, Mo. Operating table.....	452,331	May 12	1440	356	55	854
Atkinson, Richard L., assignor to J. D. Tustin, Delaware Township, N. J. Telegraph-repeater.....	464,001	Dec. 1	2	1	57	1137
Atkinson, William, assignor of one-half to R. J. Rodden, Granby, Canada. Vehicle-spring.....	455,603	July 7	501	130	56	96
Atkinson, W. H., et al. (See Atkinson, William H., assignor.)						
Atkinson, W. H., et al. (See Somers, Daniel M., assignor.)						
Atkinson, William H., Brooklyn, N. Y. Combined ruler and paper-cutter.....	445,009	Jan. 20	1666	427	54	341
Atkinson, William H., Brooklyn, N. Y. Fishing-reel.....	463,377	Nov. 17	1846	483	57	925
Atkinson, William H., assignor to D. M., J. L., and G. A. Somers, W. H. Atkinson, and E. E. Somers, Brooklyn, N. Y. Metal box.....	459,696	Sept. 15	1824	458	56	1434
Atkinson, William H., assignor to D. M., J. L., and G. A. Somers, W. H. Atkinson, and E. E. Somers, Brooklyn, N. Y. Sheet-metal box.....	459,697	Sept. 15	1825	458	56	1434
Atkinson, William H., assignor to D. M., J. L., and G. A. Somers, W. H. Atkinson, and E. E. Somers, Brooklyn, N. Y. Game-counter.....	463,378	Nov. 17	1850	483	57	926
Atlantic Dynamite Company, et al. (See Schrader, John C., assignor.)						
Atsatt, John C. F., Mattapoisett, Mass. Device for automatically regulating combustion in hot-water and hot-air heating apparatus. (Reissue).....	11,139	Jan. 13	1293	335	54	261
Atterbury, Thomas B., Allegheny, Pa. Glass-mold.....	453,875	June 9	1070	279	55	1359
Atwill, William H. (See Berry, Samuel F., assignor.)						
Atwood, Benjamin F. (See Shaw and Atwood.)						
Atwood, Crawford Company. (See Morrison, John H., assignor.)						
Atwood Electric Company. (See Atwood, La Motte C., assignor.)						
Atwood, George F., Orange, N. J. Adding-machine.....	452,446	May 19	1628	{ 405 406 }	55	899
Atwood, Isaac. (See Smith and Copeland, assignors.)						
Atwood, La Motte C., assignor to Atwood Electric Company, St. Louis, Mo. Electric-arc lamp.....	448,107	Mar. 10	1354	347	54	1384
Atwood, La Motte C., assignor to Atwood Electric Company, St. Louis, Mo. Armature.....	450,552	Apr. 14	1364	336	55	269
Atwood, La Motte C., St. Louis, Mo., assignor to Atwood Electric Company, East St. Louis, Ill. Electric car-brake.....	461,808	Oct. 27	2065	509	57	417
Atwood, La Motte C., assignor to Atwood Electric Company, St. Louis, Mo. Electric brake.....	464,002	Dec. 1	3	1	57	1137
Atwood, La Motte C., St. Louis, Mo., assignor to Atwood Electric Company, East St. Louis, Ill. Electric car-brake.....	466,212	Dec. 29	3538	905	57	1849
Atwood, Leonard, Philadelphia, Pa. Cog-wheel.....	447,592	Mar. 3	466	115	54	1205
Atwood, Lewis J., and F. W. Tobey, assignors to Plume & Atwood Manufacturing Company, Waterbury, Conn. Argand lamp.....	448,851	Mar. 24	2583	649	54	1635
Atwood, Lewis J., and F. W. Tobey, assignors to Plume & Atwood Manufacturing Company, Waterbury, Conn. Argand lamp.....	454,247	June 16	1594	419	55	1469
Atwood Machine Company. (See Bradley, Edward E., assignor.)						
Atwood, Philo C., Willimantic, Conn. Bench-scraper.....	465,825	Dec. 29	2897	743	57	1727
Auberlin, Charles, et al. (See Auberlin, William, assignor.)						
Auberlin, Gustave, et al. (See Auberlin, William, assignor.)						
Auberlin, Herman, et al. (See Auberlin, William, assignor.)						
Auberlin, William, assignor of three-fourths to C., H., and G. Auberlin, Detroit, Mich. Street-sweeping machine.....	444,683	Jan. 13	1100	{ 284 285 }	54	225
Auble, James H., and J. F. Hornberger, Lawrenceburg, Ind. Mechanism for printing from wood.....	455,379	July 7	130	34	56	29
Anceby, David G., assignor to S. Ritty, Dayton, Ohio. Horse hay-rake.....	463,299	Nov. 17	1714	447	57	900
Ancoin & Co., V. (See Ancoin, Victor, assignor.)						
Ancoin, Joseph F., Plattenville, La. Cane-scraper.....	446,805	Feb. 17	2105	524	54	943
Ancoin, Victor, assignor to V. Ancoin & Co., New Iberia, La. Hoop-flaring machine.....	451,439	Apr. 28	2798	691	55	566
Audsley, George A. (See Hille and Audsley.)						
Audsley, Maurice A. (See Hille and Audsley.)						
Auerbach, Felix. (See Leinweber, Herman, assignor.)						
Augier, Newell G., Stuart, Neb. Wardrobe-bedstead.....	450,600	Apr. 14	1438	353	55	282
Augustin, Francis E. (See Werner, Fred P., assignor.)						
Augustine, John G., Columbiana, Ohio. Pump.....	452,961	May 26	2456	620	55	1066
Anlls, Herbert L., et al. (See Metz, Julius, assignor.)						
Anredenn, John, assignor, by mesne assignments, to J. G. Rebmann, Cincinnati, Ohio. Take-up device for knitting-machines.....	451,446	May 5	2	1	55	579
Austin, Anna B. (See Bunnell, Morton G., assignor.)						
Austin, Anna B. (See Cameron, Arthur, assignor.)						
Austin & Eddy. (See Fernald, George W., assignor.)						
Austin, Frederick C. (See Cameron, Arthur, assignor.)						
Austin, Frederick C. (See Cameron and Chapman, assignors.)						
Austin, Frederick C. (See Foster, Charles E., assignor.)						
Austin, Frederick C. (See Moats, Ortns E., assignor.)						
Austin, George W., Mitchell, S. D. Steamer.....	452,961	May 26	2351	595	55	1045
Austin, James S., et al. (See Melville, George W., assignor.)						
Austin, Josiah, near East Liberty, Ohio. Boiler-feeder.....	446,411	Feb. 17	1505	371	54	823

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Austin, Josiah, East Liberty, Ohio. Boiler-feeder	461,949	Oct. 27	2294	568	57	462
Austin, Nelson E., Danbury, Conn. Drill-chuck	444,586	Jan. 13	954	247	54	198
Austin, Nelson E., Danbury, Conn. Motor	445,593	Feb. 3	116	29	54	534
Austin, Nelson E., Danbury, Conn. Heating apparatus	449,277	Mar. 31	3240	819 830	54	1769
Austin, Nelson E., Danbury, Conn. Chuck	457,392	Aug. 11	787	202	56	686
Austin, Nelson E., Danbury, Conn. Drill-chuck	457,393	Aug. 11	788	202	56	687
Austin, William J., Fond du Lac, Wis. Steam-boiler	400,290	Sept. 29	2762	688	56	1627
Austin, William L., Philadelphia, Pa. Locomotive-driver brake	450,212	Apr. 14	833	209	55	168
Austin, William L., Toston, Mont. Smelting sulphides	453,529	June 2	550	141	55	1251
Austin, William L., Toston, Mont. Smelting-furnace	460,193	Sept. 29	2593	646 647	56	1594
Autenrieth, Ernst F., New York, N. Y. Drum for sandpapering-machines	456,298	July 21	1579	417	56	318
Autenrieth, Ernst F., New York, N. Y. Sandpapering-machine	457,068	Aug. 4	217	52, 53	56	574
Autenrieth, Ernst F., New York, N. Y. Swing-saw machine	460,699	Oct. 6	275	66	57	54
Auto Machinery Company. (See Hillman, William, assignor.)						
Automatic Cigar Seller Company. (See Thompson, Charles H., assignor.)						
Automatic Electric Scale Company. (See Davis, John V., assignor.)						
Automatic Filter Company. (See McDonald, Marshall, assignor.)						
Automatic Switch Company. (See Whittingham, George H., assignor.)						
Averell, Ellicott D., Brooklyn, N. Y. Packing for bottles	463,300	Nov. 17	1716	447	57	900
Averill, Annie L., et al. (See MacKenzie, George W., assignor.)						
Avery, Frederick C., assignor of one-half to C. L. Jeuness, Chicago, Ill. Pocket-case	454,160	June 16	1471	386	55	1445
Avery, George H., Easthampton, assignor of one-half to Standard Whip Company, Westfield, Mass. Belt-fastener	459,344	Sept. 8	1254	308	56	1317
Avery, George H., Easthampton, assignor of one-half to Standard Whip Company, Westfield, Mass. Band-uniting device	465,652	Dec. 22	2639	673	57	1666
Avery, Henry W., Cleveland, Ohio. Stake-pocket	444,375	Jan. 6	612	157	54	121
Avery, Herbert G., assignor to W. M. Brown, Albany, N. Y. Ink-well for desks	459,433	Sept. 15	1405	351	56	1355
Avery, John G. (See Park and Goddard, assignors.)						
Avery Stamping Company. (See Judd, Fred. W., assignor.)						
Avey, William H., Columbus, Ky. Gunboat-turret	461,517	Oct. 20	1597	389 390	57	320
Avis, Edward S. (See Hartigan, James W., assignor.)						
Avis, Walter H., Dovercourt, assignor to R. C. Fisher, Toronto, Canada. Machine for the manufacture of twines, &c.	449,991	Apr. 7	514	128 129	55	100
Avis, Walter H., assignor to R. C. Fisher, Toronto, Canada. Twine-making machine	451,424	Apr. 28	2774	686	55	561
Axtell, Henry A., Turner's Falls, Mass. Machine for grinding cutlery	451,012	Apr. 28	2136	528	55	438
Axtell, Samuel W. (See Harrah, Philip J., assignor.)						
Aycock, John A. (See Aycock, William C. and J. A.)						
Aycock, William C. and J. A., assignors of one-third to J. A. Brooks, Griffin, Ga. Blind-stile boring and mortising machine	447,270	Feb. 24	2923	726 727	54	1106
Aydelott, George B., et al. (See Hoss, Henry W., assignor.)						
Aydelott, Jacob S., Fort Wayne, Ind. Paper-roll holder, cutter, and printer	458,211	Aug. 25	2086	540	56	950
Aydelott, Samuel T., et al. (See Hoss, Henry W., assignor.)						
Ayer, George A., Worcester, Mass., assignor to Complete Combustion Company, Portland, Me. Steam-boiler and furnace	455,698	July 7	646	170	56	125
Ayer, George A., Worcester, Mass., assignor to Complete Combustion Company, Portland, Me. Blower-valve for locomotives	456,240	July 21	1490	396	56	301
Ayer, George A., Worcester, Mass., assignor to Complete Combustion Company, Portland, Me. Fire-box for locomotive-engines	463,090	Nov. 10	1375	355 356	57	827
Ayers, Albert, Rahway, N. J. Sash-holder	448,108	Mar. 10	1356	347	54	1384
Ayers, James R., Petersburg, Va. Hasp-lock	455,149	June 30	3117	791	55	1770
Ayers, William H., and B. W. Demarest, West Hoboken, N. J. Printer's type-case	457,919	Aug. 18	1635	428	56	857
Ayles, Allan M., Melbourne, Victoria. Lever-fastening for corsets	460,386	Sept. 29	2895	723	56	1652
Aylworth, George H., Brighton, Ill. Gate	444,325	Jan. 6	538	140	54	108
Ayres, Allen T., et al. (See Ludwig, John C., assignor.)						
Ayres, Edward F., and T. H. Foster, Danbury, Conn. Heel-protector	457,394	Aug. 11	789	202	56	687
Ayres, Hiram J., et al. (See Ludwig, John C., assignor.)						
Ayres, Lemuel H., Guthrie, Ky. Permutation-padlock	451,356	Apr. 28	2669	661	55	542
Ayres, Sereno N., New York, N. Y. Pocket-lamp	462,026	Oct. 27	2408	598	57	484
Ayres, William C., assignor of one-half to L. H. Jurey, New Orleans, La. Nut-lock	452,511	May 19	1734	436	55	916
Ayres, William H., and H. Schroeder, Whipple Barracks, Ariz. Ter. Bow for stringed musical instruments	466,146	Dec. 29	3444	881	57	1832
Ayton, Charles W., St. Louis, Mo. Electrical recorder for voltmeters, thermometers, &c.	459,863	Sept. 22	2093	525 526	56	1493
Aytoun, James, Edinburgh, Scotland. Can						
B. F. Avery & Sons. (See Flatau, Louis S., assignor.)						
B. F. Avery & Sons. (See Holsclaw, Wilford H., assignor.)						
B. F. Avery & Sons. (See Huhlein, Charles F., assignor.)						
B. F. Goodrich Company. (See Ellis, William J., assignor.)						
B. F. Goodrich Company. (See Holt, Albert T., assignor.)						
B. F. Sturtevant Company. (See Snow, Walter B., assignor.)						
B. P. S. Sewing Machine Company. (See Priestner and Schütz, assignors.)						
Babbe, Friedrich H. B., San Francisco, Cal. Bed	448,000	Mar. 10	1203	305	54	1353
Babbitt, Bradford B., Boston, Mass. Coin-operated machine for furnishing toilet-paper	456,788	July 28	2389	629 630	56	479
Babbitt, Edmond H., St. Louis, Mo., and E. T. Harvey, Chicago, Ill. Roller-shelf book-case						
Babbitt, Henry B., Paxton, Ind. Pea-huller	447,238	Feb. 24	2870	713	54	1095
Babbitt, James M., 2d, Fall River, Mass. Machine for forming loom-cranks	450,051	Apr. 7	593	147	55	114
Babbitt, Seth W., assignor to Wilcox Silver Plate Company, Meriden, Conn. Cheese-holder	453,499	July 7	313	80	56	63
Babbitt, Seth W., assignor to Wilcox Silver Plate Company, Meriden, Conn. Machine for embossing works in sheet metal	453,571	June 2	614	157	55	1263
Babbitt, Seward S., Allegheny, and R. W. Bailey, Pittsburg, assignors to said Babbitt and Robinson-Rea Manufacturing Company, Pittsburg, Pa. Bearing for engines						
Babbitt, Seward S., Allegheny, and R. W. Bailey, Pittsburg, assignors to said Babbitt and Robinson-Rea Manufacturing Company, Pittsburg, Pa. Bearing for engines	454,149	June 16	1453	381	55	1440
Babcock, Caleb S., and D. A. Gourlay, Mount Vernon, N. Y. Voting-booth	456,921	July 28	2619	687	56	522
Babcock, Caleb S., and D. A. Gourlay, Mount Vernon, N. Y. Voting-booth	447,239	Feb. 24	2871	712 713	54	1095
Babcock, Charles, assignor of one-fourth to A. R. Thompson, Troy, N. Y. Shoe-lace fastener	460,816	Oct. 6	440	111	57	88
Babcock, Charles W., Crescent City, Cal. Shingle or shake machine	445,742	Feb. 3	372	96	54	586
Babcock, Courtlandt, et al. (See Pease, Roger S., assignor.)						
Babcock, Erskine L., and E. D. Schmitt, Cuyahoga Falls, Ohio. Friction-clutch	465,106	Dec. 15	1752	443	57	1488
Babcock, Josiah W., San Diego, Cal. Positive shuttle-motion for looms	447,038	Feb. 24	2513	624	54	1026

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Babcock, Washington I., Chicago, Ill. Hoisting apparatus	459,434	Sept. 15	1406	351	56	1355
Bach, Heinrika, administratrix. (See Bach, John.)						
Bach, John C., deceased; H. Bach, Kilmanagh, Mich., administratrix, and assignor to herself. Hammock-chair	454,248	June 16	1595	420	55	1469
Bach, John J., Philadelphia, Pa. Cigar bunching and wrapping machine	450,831	Apr. 21	1843	{ 448 449 }	55	373
Bach, Wilhelm F. (See Schlee, Bach, and Mooney.)						
Bache, Carl R., Holstenbüe, Denmark. Hydraulic weighing-scale for railway-cars	454,249	June 16	1596	420	55	1469
Bachelor, Alfred M., and L. B. Garrett, Rockford, Ill. Lawn-mower sharpener	463,676	Nov. 24	2329	611	57	1026
Bachelor, Elmer N., and F. E. Lovejoy, Portland, Me. Grain-meter	462,680	Nov. 10	734	191	57	701
Bachem, Carl, Pforzheim, Baden, Germany. Bracelet	449,103	Mar. 31	2961	750	54	1718
Bachem, Carl, Pforzheim, Germany. Fastening for scarf-pins and brooches	461,902	Oct. 27	2221	549	57	448
Bachler, Christian F., Philadelphia, Pa. Atomizer	447,599	Mar. 3	534	131	54	1218
Bachman, Joseph A., Austin, Tex. Machinery for pressing cotton	441,846	May 5	603	150	55	694
Bachman, Joseph A., Austin, Tex. Saw-gin	462,189	Oct. 27	2657	665	57	531
Bachmann, Ulrich, San Francisco, Cal. Apparatus for impregnating liquids with gas	452,512	May 19	1735	437	55	917
Bachmann, Ulrich, San Francisco, Cal. Fermenting-vat	454,586	June 23	2128	549	55	1577
Bachmann, Ulrich, San Francisco, Cal. Bottling apparatus	459,245	Sept. 8	1098	268	56	1285
Back, John R., assignor of one-half to F. E. Reed, Worcester, Mass. Rest for metal-turning lathes	455,466	July 7	263	67	56	53
Back, Tillie. (See Holeywell, William H., assignor.)						
Backof, William C., et al. (See Brown, Lewis A., assignor.)						
Backus, Absalom, Jr., Detroit, Mich. Furnace	463,023	Nov. 10	1270	329	57	806
Backus Water Motor Company. (See Shepperd, Sylvanus D., assignor.)						
Bacon, Albert S., Manchester, Va. Paper-calendering rolls	454,322	June 16	1708	446	55	1491
Bacon, Byron R., East Orange, N. J. Closet-cistern	447,534	Mar. 3	441	108	54	1200
Bacon, Byron R., East Orange, N. J., assignor to himself, and T. R. Sully, Buffalo, N. Y. Bin or holder for coffee, &c.	447,532	Mar. 3	439	108	54	1200
Bacon, Byron R., East Orange, N. J., assignor to himself, and T. R. Sully, Buffalo, N. Y. Cuff holder and distender	447,533	Mar. 3	440	108	54	1200
Bacon, Charles A., St. John's, Mich. Show-case	464,618	Dec. 8	1390	350	57	1409
Bacon, Clovis N., Boston, Mass. Steam boiler and furnace	454,446	June 23	1905	497	55	1535
Bacon, Daniel H., and C. C. Hill, Chicago, Ill.; said Hill assignor to said Bacon. Coin-operated liquid-vending device	452,092	May 12	1041	{ 263 264 }	55	778
Bacon, Gilbert. (See Lindsay, William G., assignor.)						
Bacon, Harland G. (See Robinson, Edwin L., assignor.)						
Bacon, Sherman B., Waterbury, Conn., assignor of one-half to C. M. Upson. Clasp	446,564	Feb. 17	1741	428	54	870
Bacon, Sherman B., assignor of one-half to C. M. Upson, Waterbury, Conn. Eyeglass-holder	455,425	July 7	205	53	56	42
Bacon, William S., Bridgeton, N. J. Can-capping machine	463,591	Nov. 17	2183	576	57	990
Bacon, William S., Philadelphia, Pa. Leather-shaving machine	463,592	Nov. 17	2185	{ 576 577 }	57	990
Bacon, William S., and S. L. Holsinger, Tiffin, Ohio. Vehicle	453,954	June 9	1173	306	55	1380
Bacorn, Frederick W., Marysville, Mont. Electric signal for mine-shafts	454,018	June 16	1268	329	55	1405
Bacot, Richard D. (See Crotty and Bacot.)						
Bader, Nicholas C., Maritz, Ohio. Hog-trap	446,215	Feb. 10	1165	286	54	742
Bader, Nicholas C., Maritz, Ohio. Corn-harvester	462,230	Nov. 3	6	2	57	554
Bader, William, Indianapolis, Ind. Fireman's smoke-protector	456,687	July 28	2213	587	56	448
Badger, Frank L., assignor to Concord Foundry Company, Concord, N. H. Device for supporting and centering cores	457,021	Aug. 4	135	33	56	559
Badger, William E., West Quincy, Mass. Electric-car mechanism	458,800	Sept. 1	377	91	56	1137
Badgley, Alfred E., Susquehanna, Pa. Apparatus for distilling wood	453,606	June 9	675	{ 175 176 }	55	1283
Badische Anilin and Soda Fabrik. (See Bohn, René, assignor.)						
Badische Anilin and Soda Fabrik. (See Ceresole, Maurice, assignor.)						
Badische Anilin and Soda Fabrik. (See Julius, Paul, assignor.)						
Badische Anilin and Soda Fabrik. (See Mentha, Eugène, assignor.)						
Baer, George B., Cloverdale, Cal. Separating cross-head tie-wires	445,828	Feb. 3	528	128	54	614
Baer, George B., Cloverdale, Cal. Mailing-machine	446,702	Feb. 17	1945	485	54	909
Baumele, John, assignor of one-half to V. D. Fischbeck, Milwaukee, Wis. Bung-extractor	452,560	May 19	1810	455	55	931
Bagby, William H., Waco, Tex. Convertible mop and brush	449,658	Apr. 7	8	2	55	4
Bagger, Louis, Washington, D. C. Fountain-swab for gun-barrels	464,843	Dec. 8	1285	322	57	1390
Baggett, John Q. (See McAlpine, Wiley A., assignor.)						
Baggett, Neil J., Gnuisight, Tex. Cotton-chopper	452,093	May 12	1043	{ 264 265 }	55	778
Bagley, Moses F., Evansville, Ind. Device for tilting buckets in water-elevators	456,255	July 21	1510	401	56	306
Bagley, Olin H., Astoria, Oreg. Gold-saving apparatus	450,764	Apr. 21	1723	417	55	352
Bagley & Sewall Company. (See Latimer and Fletcher, assignors.)						
Bagnall, Ernest J., St. Louis, Mo. Electric switch	463,311	Nov. 17	1734	453	57	904
Bagshaw, Walter H., Lowell, Mass. Comb	452,156	May 12	1151	291	55	798
Bahr, Jacob S., Pottstown, Pa. Cabinet for umbrellas	455,604	July 7	502	130	56	97
Bahns, George H. (See Tietjen, George H., assignor.)						
Baier, Franz A., New York, N. Y. Box-fastener	462,658	Nov. 3	682	173	57	682
Baier, Fred, and D. R. Hart, assignors to Brownell Car Company, St. Louis, Mo. Street-car	447,240	Feb. 24	2873	713	54	1095
Bailey Anger Bit Company. (See Spring, Albert O., assignor.)						
Bailey, Charles J. (See Thom and Bailey.)						
Bailey, Charles J., Newton, Mass. Rubber	452,212	Aug. 25	2088	540	56	951
Bailey, Edward L. (See Brown and Bailey.)						
Bailey, Edward S., and J. M. Coons, Orrick, Mo. Cultivator attachment	445,871	Feb. 3	589	144	54	627
Bailey, Frank W., Wakefield, Mass. Railway-car seat	451,357	Apr. 28	2673	662	55	542
Bailey, George N., et al. (See Brown, Walter F., assignor.)						
Bailey, George W., Lynn, Mass. Car-coupling	450,832	Apr. 21	1844	449	55	373
Bailey, Gilbert L., Portland, Me. Machine for pointing pencils	456,283	July 21	1549	410	56	313
Bailey, Henry C. (See McGahan, Fred L., assignor.)						
Bailey, Henry C., et al. (See Mettler, Eugene G., assignor.)						
Bailey, Hiram S. (See Montague and Bailey.)						
Bailey, James G., New Glasgow, Canada. Sad-iron heater	451,104	Apr. 28	2256	558	55	463
Bailey, John W. (See Sharpneck and Bailey.)						
Bailey, Leonard, Hartford, Conn. Curry-comb	458,801	Sept. 1	380	91	56	1138
Bailey, Leonard, Wethersfield, Conn. Book-binding	462,027	Oct. 27	2410	598	57	484
Bailey, Marion M., assignor of one-fifth to A. M. Holmes, Denver, Colo. Momentum-reservoir motor	465,122	Dec. 15	1780	{ 449 450 }	57	1492

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Bailey, Reade W. (See Babbitt and Bailey.)						
Bailey, Samuel R., Amesbury, Mass. Carriage	447,752	Mar. 10	769	191	54	1271
Bailey, Samuel R., Amesbury, Mass. Vehicle-body	455,730	July 14	717	189	56	147
Bailey, Samuel R., Amesbury, Mass. Carriage	460,547	Oct. 6	2	1	57	3
Bailey, Selden A., New London, Conn. Store-service apparatus	462,906	Nov. 10	1095	{ 284 285 }	57	772
Bailey, Stephen, Ansonia, Ohio. Whiffletree-hook	448,193	Mar. 17	1505	384	54	1123
Bailey, Welford S., and W. M. Stevenson, Cleveland, Ohio. Butter-lifter	447,286	Mar. 3	3	1	54	1119
Bailey, Wesley E., Detroit, Mich. Split link	446,317	Feb. 10	1348	328	54	779
Bailey, William F., et al. (See Brown, Walter F., assignor.)						
Bailey, William H., and G. Lindemann, Salford, England. Pump and pumping-engine	457,022	Aug. 4	136	34	56	559
Bailor, Lorenzo D., Geneva, Nebr. Catarrh remedy	446,412	Feb. 17	1506		54	823
Baily, Mifflin W., Pottstown, Pa. Support for radiators	450,325	Apr. 14	1026	253	55	203
Bain, Forée, Chicago, Ill. Electrode for secondary batteries	444,969	Jan. 20	1609	411	54	329
Bain, Thomas, et al. (See Grant, Daniel, assignor.)						
Bainbridge, David, Philadelphia, Pa. Manufacture of turned shoes	463,885	Nov. 24	2657	{ 692 693 }	57	1087
Bainbridge, Richard W., Brooklyn, N. Y. Envelope	444,092	Jan. 6	176	44	54	37
Bainbridge, Richard W., Brooklyn, N. Y. Material for picture-mats	452,911	May 26	2367	599	55	1047
Baines, Robert T., London, England. Stop-cock	451,746	May 5	468	115	55	667
Baird, Archibald, et al. (See Rose, George, assignor.)						
Baird, George W., Washington, D. C. Steam generator or evaporator	450,361	Apr. 14	1079	266	55	213
Baird, James B., assignor of two-thirds to J. Holloran, Noblesville, and M. O. Haldeman, Indianapolis, Ind. Device for operating the parts of split nuts, dies, &c.	465,622	Dec. 22	2595	659	57	1657
Baird, James B., and J. Holloran, Noblesville, Ind. Saw-gumner	452,157	May 12	1152	291	55	799
Baird, James T., Rosedale, Kans. Car-starter	451,906	May 12	721	181	55	722
Baird, John, New York, N. Y. Compound steam-engine	447,929	Mar. 10	1081	271	54	1330
Baird, John, New York, N. Y. Compound steam-engine	448,001	Mar. 10	1204	{ 305 306 }	54	1353
Baird, John, New York, N. Y. Feed-water heater	456,712	July 28	2256	598	56	456
Baird, John, New York, N. Y. Feed-water heater	456,713	July 28	2258	{ 598 599 }	56	457
Baird, John, New York, N. Y. Steam-boiler	458,817	Sept. 1	413	98, 99	56	1144
Baird, John, New York, N. Y. Steam-boiler	458,818	Sept. 1	416	99	56	1145
Baird, John, New York, N. Y. Steam-boiler	458,819	Sept. 1	418	100	56	1145
Baird, John, New York, N. Y. Feed-water heater for steam-boilers	460,347	Sept. 29	2638	706	56	1642
Baird, John, New York, N. Y. Steam-boiler	460,838	Oct. 6	466	118	57	93
Baird, John, New York, N. Y. Feed-water heater for steam-boilers	460,839	Oct. 6	467	{ 118 119 }	57	93
Baird, John, New York, N. Y. Steam-boiler	460,906	Oct. 6	577	{ 146 147 }	57	113
Baird, Lyman D., et al. (See Pierce, Jonathan A., assignor.)						
Baird, Matthew B., et al. (See Rose, George, assignor.)						
Baird, William C., Brooklyn, N. Y., assignor to Wilson Manufacturing Company, of Minnesota. Speed-controlling device	449,063	Mar. 24	2897	735	54	1696
Bairstow, John. (See Fanning, John J., assignor.)						
Baiter, Theodore C., Cincinnati, Ohio. Scoring-machine	452,631	May 19	1922	483	55	953
Baker, Albert R. (See Brown, John F., assignor.)						
Baker, Albert R., Indianapolis, Ind. Letter-paper	450,130	Apr. 14	716	180	55	146
Baker, Alexander P., and F. M., Empire, Wis. Sprinkling-can	453,530	June 2	553	141	55	1252
Baker Chain and Wagon Iron Manufacturing Company. (See Baker, James H., assignor.)						
Baker, Charles F., Minneapolis, Minn. Vertical boiler	459,776	Sept. 22	1953	{ 492 493 }	56	1465
Baker, Charles H., New York, N. Y. Oil-cup	445,490	Jan. 27	2388	621	54	491
Baker, Charles H., Wabash, Ind. Shaft-support for buggies	464,488	Dec. 8	742	181	57	1285
Baker, Charles H., assignor of two-thirds to W. P. Jones, Wabash, Ind. Shaft-holder	463,091	Nov. 10	1377	356	57	827
Baker, Charles T. (See Armitage, George T., assignor.)						
Baker, Daniel B., San Jacinto, Cal. Sad-iron	444,418	Jan. 13	691	180	54	144
Baker, Edward E., Pittsburg, Pa. Attachment for telephones	453,722	June 9	859	222	55	1318
Baker, Edward F., Chicago, Ill. Package of fly-paper	459,188	Sept. 8	1010	247	56	1268
Baker, Edward L., Racine, Wis. Cotton-harvesting machine	459,621	Sept. 15	1707	427	56	1410
Baker, Edward L., Racine, Wis. Cotton-harvesting machine	459,623	Sept. 15	1715	{ 430 431 }	56	1412
Baker, Edward L., and R. Emerson, Racine, Wis. Cotton-harvesting machine	459,622	Sept. 15	1710	{ 428 429 }	56	1411
Baker, Edwin M., Crayon, Ohio. Fence-tool	462,523	Nov. 3	471	115	57	641
Baker, Elbridge, Malden, Mass. Electric motor	453,031	May 26	2565	649	55	1087
Baker, Elwood T. (See Lapham, Valentine, assignor.)						
Baker, Francis M. (See Baker, Alexander P., and F. M.)						
Baker, Francis M., Oswego, N. Y. Letter-file	452,353	May 19	1480	367	55	871
Baker, Frank M., New York, N. Y. Cording corset-sections	455,558	July 7	419	111	56	81
Baker, Frank M., assignor to J. M. Cohn, New York, N. Y. Cording attachment for sewing-machines	445,361	Jan. 27	2204	571	54	456
Baker, George W., Colmesneil, Tex. Shears	444,970	Jan. 20	1610	412	54	330
Baker, George W., Colmesneil, Tex. Mechanical movement	446,318	Feb. 10	1349	329	54	779
Baker, George W., Wilmington, Del. Leather staking and stretching machine	451,796	May 5	538	133	55	681
Baker, George W., assignor of two-thirds to J. T. Branan, Colmesneil, Tex. Plow	450,281	Apr. 14	951	236	55	189
Baker, George W., Freeport, assignor of one-half to L. Reynolds, Eagle Point, Ill. Combined lantern and vehicle-heater	458,150	Aug. 25	1990	515	56	993
Baker Gun and Forging Company. (See Hollenbeck, Frank A., assignor.)						
Baker, Haydn M., Brooklyn, N. Y. Composition for combustible briquets	446,505	Feb. 17	1653		54	853
Baker Heater Company. (See Baker, William C., assignor.)						
Baker, Henry, et al. (See Coombs, Edwin T., assignor.)						
Baker, Henry B., assignor of one-half to I. P. Primrose and H. E. Howe, Nelsonville, Ohio. Washing-machine	457,979	Aug. 18	1735	456	56	876
Baker, Henry W., Keyser, W. Va. Portable house	444,604	Jan. 13	976	253	54	202
Baker, Howard F. (See Sheldon, Lukin, and Baker.)						
Baker, Isaac F. (See Cahoon and Baker.)						
Baker, Isaac F., Lynn, and R. Booth, Malden, Mass., assignors to Thomson-Houston Electric Company, of Connecticut. Snow-sweeper	444,871	Jan. 20	1437	374	54	217
Baker, Isaac F., Lynn, and R. Booth, Malden, Mass., assignors to Thomson-Houston Electric Company, of Connecticut. Snow-broom	444,872	Jan. 20	1440	374	51	297
Baker, James, St. Louis, Mo. Cooking and heating stove	446,413	Feb. 17	1506	371	54	823

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Baker, James G., <i>et al.</i> (See Van Winkle, George H., assignor.)						
Baker, James H. (See Rogers and Baker.)						
Baker, James H., Springfield, Ill. Steam-actuated valve	449,868	Apr. 7	339	87	55	68
Baker, James H., assignor to Baker Chain and Wagon Iron Manufacturing Company, Allegheny, Pa. Manufacture of links and apparatus therefor	451,797	May 5	540	133	55	681
Baker, James H., assignor of three-fifths to G. E. Black, H. A. Owen, M. W. Osborne, and Lancaster, Hall & Pike, St. Joseph, Mo. Railway hand-car	462,190	Oct. 27	2658	666	57	531
Baker, James H., assignor of three-fifths to G. E. Black, H. A. Owen, M. W. Osborne, and Lancaster, Hall & Pike, St. Joseph, Mo. Driving-gear for velocipedes	462,191	Oct. 27	2660	666	57	531
Baker, James S., assignor to Stewart & Baker, Rochester, N. Y. Sash-balance	452,208	May 12	1237	667	55	815
Baker, Jay, Kansas City, Mo. Ice-cream freezer	459,539	Sept. 15	1567	391 392 393	56	1385
Baker, John, and H. S. Graham, Indianola, Iowa. Portable electric-lamp holder	465,039	Dec. 15	1628	414	57	1465
Baker, John E., assignor of one-half to T. S. Gallagher, Erie, Pa. Printer's quoin	464,658	Dec. 8	1001	250	57	1336
Baker, John L., Greensborough, N. C. Transom-lifter	447,174	Feb. 24	2754	681	54	1072
Baker, John W., and J. Lacey, Bakersfield, Cal. Cutter-bar attachment	458,151	Aug. 25	1992	516	56	933
Baker, Joseph G., assignor of one-half to A. O. Bills, Philadelphia, Pa. Vise	453,459	June 2	452	116	55	1233
Baker, Joseph M., Louisville, Ky. Wooden tobacco-box	451,549	May 5	156	38	55	609
Baker, Joseph W., Baker's Store, Tex. Stirrup	453,607	June 9	677	176	55	1284
Baker, Louis E., San Francisco, Cal. Type-writing machine	445,152	Jan. 27	1897	489	54	395
Baker, Owen T., assignor of one-half to T. E. Stanley and C. D. Guiley, Fort Worth, Tex. Wagon-brake	446,565	Feb. 17	1742	428 429	54	870
Baker, Walter, Hion, assignor to Remington Standard Type Writer Manufacturing Company, New York, N. Y. Type-bar and manufacturing the same	446,414	Feb. 17	1508	371	54	823
Baker, William C., New York, N. Y. Railway-car heater. (Reissue)	11,302	Nov. 17	2221	585	57	997
Baker, William C., assignor to Baker Heater Company, New York, N. Y. Car-heating apparatus	447,100	Feb. 24	2605	647	54	1045
Baker, William C., assignor to Baker Heater Company, New York, N. Y. Car-heater	449,306	Mar. 31	3294	833	54	1778
Baker, William C., assignor to Baker Heater Company, New York, N. Y. Railway-car heater	457,920	Aug. 18	1636	428	56	857
Baker, William E. (See Macloskie and Baker.)						
Baker, William E., and C. H. Macloskie, Boston, Mass. Insulating-clamp for span-wires	453,100	May 26	2688	677	55	1111
Baker, William S. G., Baltimore, Md. Car-truck	460,348	Sept. 29	2840	707	56	1643
Baker, William Y. (See White, Baker, and Watts.)						
Balbin, Gabriel, Brooklyn, N. Y. Implement for testing the burning qualities of cigars	448,194	Mar. 17	1507	384	54	1424
Balch, Frank C. (See Spaulding, Frank M., assignor.)						
Balch, Frank C., and F. Bush, Kalamazoo, Mich. Surface cattle-guard	459,808	Sept. 22	2002	503	56	1474
Balch, Frederick A. and R. W., Neillville, Wis., assignors of one-half to W. G. Keopf and F. W. Archer. Wash-board	465,405	Dec. 15	2236	573	57	1578
Balch, Rella W. (See Balch, Frederick A. and R. W.)						
Balch, Samuel W., Yonkers, assignor to Emanuel Rau Manufacturing Company, New York, N. Y. Machine for gumming and feeding envelope blanks	460,065	Sept. 22	2394	599	56	1548
Balderston, Thomas C. (See Hall, John D., assignor.)						
Balderston, Thomas C. (See Nelson, William O., assignor.)						
Baldinger, William H., Galveston, Tex. Bottle-filling machine	447,056	Feb. 24	2540	631	54	1032
Baldrige, Orval E., Illinois, Ill. Planter	455,150	June 30	3118	792	55	1770
Baldrige, George W., deceased; M. B. Baldrige, St. Louis, Mo., executrix. Shifter-stop for type-writing machines	453,531	June 2	555	142	55	1252
Baldrige, Minnie B., executrix. (See Baldrige, George W.)						
Baldwin, Alexander P. (See Spangler, Jacob R., assignor.)						
Baldwin, Albert H. (See Winters, Frank M., assignor.)						
Baldwin, Byron, Brooklyn, N. Y. Sash-fastener	447,753	Mar. 10	771	191	54	1271
Baldwin, Charles, Quincy, Ill. Pneumatic machine for picking cotton	451,589	May 5	221	52	55	621
Baldwin, Cyrus W., Yonkers, N. Y., assignor, by mesne assignments, to National Company, of Illinois. Elevator	456,106	July 14	1265	332 333	56	250
Baldwin, Cyrus W., Yonkers, N. Y., assignor, by mesne assignments, to National Company, of Illinois. Elevator-controller	456,107	July 14	1267	333	56	250
Baldwin, Daniel M., Florence, Cal. Seeding-machine	444,573	Jan. 13	939	243 244	54	194
Baldwin, Eben A., assignor to Davis & Furber Machine Company, North Andover, Mass. Spindle-driving mechanism for spinning-machines	452,332	May 12	1442	356	55	854
Baldwin, Elbert T., and J. H. Stimpson, Gilman, Colo. Combined rolling-pin and cake-cutter	448,311	Mar. 17	1717	435	54	1464
Baldwin, Elizabeth. (See Baldwin, John C., assignor.)						
Baldwin, Fay. (See Patterson, Charles R., assignor.)						
Baldwin, Frank A., <i>et al.</i> (See Annable, Warren W., assignor.)						
Baldwin, Frank R., New York, N. Y. Vacuum cleaner	451,387	Apr. 28	2709	672	55	549
Baldwin, Frank S., Newark, N. J., assignor of one-half to R. N. Anderson, New York, N. Y. Cement or mortar mixer	451,992	May 12	850	217 218	55	747
Baldwin, George R., Montreal, Canada. Electric locomotive	446,345	Feb. 10	1235	302	54	757
Baldwin, George R., New York, N. Y. Electric meter	461,229	Oct. 13	1069	270 271	57	213
Baldwin, John C., assignor, by mesne assignments, to E. Baldwin, North Providence, R. I. Stop-motion for drawing-machines	465,332	Dec. 15	2109	538	57	1555
Baldwin, John H., Jr., San Antonio, Tex. Drawer	466,069	Dec. 29	3320	848	57	1807
Baldwin, John P., Baldwin, La. Weighing apparatus for liquids	446,844	Feb. 24	2171	541	54	965
Baldwin, Joseph F., Cambridge, Mass. Caterer's vehicle	464,058	Dec. 1	72	20	57	1151
Baldwin, Judson A., assignor to Burlington Blind Company, Burlington, Vt. Machine for planing and dressing slats	458,323	Aug. 25	2283	559	56	987
Baldwin, Luther C., Manchester, N. H. Machine for putting rings upon bobbins	464,650	Dec. 8	988	246	57	1334
Baldwin, Mariam A., Pueblo, Colo. Door or window screen attachment	449,514	Mar. 31	3659	919	54	1846
Baldwin, Nathan A. (See Nason, Horace F., assignor.)						
Baldwin, Ransom G. (See Ives, Simmons, and Baldwin.)						
Baldwin, Thomas. (See Davis and Baldwin.)						
Baldwin, William, Great Bend, Pa. Tubular lantern	448,002	Mar. 10	1205	306	54	1353
Baldwin, William D., <i>et al.</i> (See Sovereign, James R., assignor.)						
Bales, Isaac, assignor of one-half to J. F. Lawrence, Columbia City, Ind. Metal-roofing seamer	449,725	Apr. 7	125	32	55	26
Bales, Thomas M., Dublin, Ind. Fanning-mill	453,532	June 2	556	142	55	1252
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Conveying steam	441,549	Jan. 13	897	233	51	186
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Sand-band	447,287	Mar. 3	5	1, 2	51	1119
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Sand-band	447,288	Mar. 3	6	2, 3	51	1119

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Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Gang-drill chan-	452,354	May 19	1481	367	55	871
neling-machine.....						
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Gang-drill chan-	452,355	May 19	1483	367	55	871
neling-machine.....				368		
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Swivel-joint.....	457,503	Aug. 11	963	244	56	719
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Channeling-machine.	457,504	Aug. 11	964	244	56	719
				245		
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Steam-actuated	457,505	Aug. 11	966	245	56	719
valve.....				246		
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Steam mining-drill	457,506	Aug. 11	967	246	56	720
Ball, Alfred P., Rock Hill, Tex. Plow.....	447,521	Mar. 3	421	103	54	1197
Ball, Anna R. (See Ball, Samuel C., assignor.)						
Ball, Charles A. (See Lumby, Thomas L., assignor.)						
Ball, Clinton M., Troy, N. Y. Magnetic ore-separator.....	465,349	Dec. 15	2149	550	57	1561
Ball, Clinton M., Troy, N. Y., and S. Norton, Hookendaqua, Pa. Process of and apparatus						
for separating ores magnetically.....	449,726	Apr. 7	127	32	55	27
Ball, Devillo, Laona, N. Y. Wire-stretcher.....	444,036	Jan. 6	86	23	54	20
Ball, Frank H., Erie, Pa. Steam-engine governor.....	454,511	June 23	2006	520	55	1555
Ball, Frank H., Erie, Pa., assignor, by mesne assignments, to Ball & Wood Company, New						
York, N. Y. Cut-off-valve gear.....	454,447	June 23	1906	497	55	1536
Ball, Harry, Stamford, assignor of one-half to F. Longgenhager, Glenbrook, Conn. Rotat-						
ing mechanism for rock-drills.....	451,425	Apr. 28	2776	686	55	561
Ball, Harry, Stamford, assignor of one-half to F. Longgenhager, Glenbrook, Conn. Valve-						
motion for rock-drills.....	455,089	June 30	3012	766	55	1751
Ball, Harry, Stamford, assignor of one-half to F. Longgenhager, Glenbrook, Conn. Valve						
mechanism for rock-drills.....	455,090	June 30	3014	766	55	1751
Ball, Harry, Stamford, assignor of one-half to F. Longgenhager, Glenbrook, Conn. Tripod						
for rock-drills.....	455,269	June 30	3302	836	55	1805
				837		
Ball, Henry P., Brooklyn, N. Y. Cleat for electric wires.....	458,964	Sept. 1	646	158	56	1191
Ball, Henry P., Brooklyn, assignor to Edison General Electric Company, New York, N. Y.						
Binding-post for electric wires.....	449,307	Mar. 31	3296	833	51	1778
Ball, Henry P., Brooklyn, assignor to Edison General Electric Company, New York, N. Y.						
Lamp-socket and switch and circuit-closer therefor.....	455,559	July 7	420	111	56	81
Ball, Henry P., Brooklyn, assignor to Edison General Electric Company, New York, N. Y.						
Safety-plug.....	460,548	Oct. 6	3	1	57	3
Ball, Henry P., Brooklyn, assignor to Edison General Electric Company, New York, N. Y.						
Device for stretching heavy wires on poles.....	461,109	Oct. 13	863	222	57	173
Ball, Henry P., assignor to Edison General Electric Company, New York, N. Y. Snap-						
switch.....	461,560	Oct. 20	1662	406	57	333
Ball, Henry P., Brooklyn, assignor to Edison General Electric Company, New York, N. Y.						
Snap-switch.....	461,561	Oct. 20	1662	406	57	333
				407		
Ball, Henry P., Brooklyn, assignor to Edison General Electric Company, New York, N. Y.						
Electric-wire connection.....	461,562	Oct. 20	1664	407	57	334
Ball, Henry P., Brooklyn, assignor to Edison General Electric Company, New York, N. Y.						
Electrical connecting device.....	461,563	Oct. 20	1665	407	57	334
Ball, Henry P., Brooklyn, assignor to Edison General Electric Company, New York, N. Y.						
Switch and cut-out device.....	463,463	Nov. 3	390	96	57	625
Ball, Henry P., Brooklyn, assignor to Edison General Electric Company, New York, N. Y.						
Electric-arc lamp.....	465,514	Dec. 22	2413	617	57	1623
Ball, James, assignor to Holyoke Envelope Company, Holyoke, Mass. Machine for mak-						
ing and printing envelopes.....	449,894	Apr. 7	371	94, 95	55	73
Ball, James, assignor to Holyoke Envelope Company, Holyoke, Mass. Machine for mak-						
ing and printing envelopes.....	463,981	Nov. 24	2806	728	57	1116
Ball, John H., Lewisham, England. Wheel-felly.....	451,013	Apr. 28	2137	528	55	438
Ball, Robert R., assignor to Van Wagoner & Williams Company, New York, N. Y. Pneu-						
matic door-check.....	452,744	May 19	2102	529	55	989
				530		
Ball, Royal E., New York, N. Y. Regulator for dynamo-electric machines.....	444,587	Jan. 13	955	248	54	198
Ball, Samuel C., assignor, by mesne assignments, to A. R. Ball, Holicong, Pa. Combined						
striker-out and plant-spacer.....	457,928	Aug. 18	1653	432	56	860
Ball, Samuel E., <i>et al.</i> (See Euchenhofer, Edward E., assignor.)						
Ball, Samuel E., assignor to National Candy Mold Company, Dayton, Ohio. Candy-mold..	449,869	Apr. 7	340	87	55	68
Ball, Thomas D. (See Hunt and Ball.)						
Ball, Thomas H., <i>et al.</i> (See Gardner, Marshall, assignor.)						
Ball Turn Machine Company. (See Day, George W., assignor.)						
Ball & Wood Company. (See Ball, Frank H., assignor.)						
Ballard, Charles, <i>et al.</i> (See Molesworth, Francis H., assignor.)						
Ballard, Edward G., Chester, England. Actinometer.....	445,743	Feb. 3	374	96	54	587
Ballard, Harrie A., East Boston, Mass. Speed-governor.....	456,392	July 21	1733	458	56	347
Ballard, Harrie A., Ashland, assignor of one-half to C. J. Pillsbury, Boston, Mass. Speed-						
controlling device.....	462,028	Oct. 27	2411	598	57	484
Ballard, James W., assignor of one-half to W. F. Johnston, Toledo, Iowa. Hand-car.....	462,389	Nov. 3	277	68	57	603
Ballard, Joseph H., New York, N. Y. Automatic feeder for printing-presses.....	462,524	Nov. 3	472	115	57	641
				116		
Ballard, Thomas W., Leyton, England. Gas-stove.....	465,911	Dec. 29	3047	780	57	1755
Ballentyne, Thomas. (See Welch, Samuel, assignor.)						
Ballert, Osmar D., <i>et al.</i> (See Ougley, Charles E., assignor.)						
Ballew, John C., Evansville, Ind. Machine for sawing barrel-hoops.....	455,980	July 14	1090	286	56	216
				287		
Balliet, John W. (See Semmel, Balliet, and Schaffer.)						
Ballou, Barton A., Providence, R. I. Swivel-joint for jewelry.....	461,564	Oct. 20	1666	407	57	334
Ballou, George B., Hopedale, Mass. Car-coupling.....	452,356	May 19	1484	368	55	872
Ballou, Hiram P., Bristol, Pa. Device for regulating the yarn-tension in knitting-machines..	455,896	July 14	965	252	56	1193
Ballreich, Charles A., Des Moines, Iowa. Car-coupling.....	465,980	Dec. 29	3158	809	57	1776
Baltimore, John, and E. E. Gold, New York, N. Y.; said Baltimore assignor to said Gold.						
Hose-coupling.....	462,464	Nov. 3	392	96	57	625
Balsley, Charles H., Jr., and E. M. Porter, Connellsville, Pa. Current-regulator for elec-						
tric lamps.....	451,798	May 5	542	134	55	681
Balsley, James R., Connellsville, Pa. Shipper.....	465,123	Dec. 15	1784	450	57	1493
Balsley, Upton H., Philadelphia, Pa. Cable-head for electric wires.....	456,611	July 28	2097	555	56	425
Balston, Clyde C., Brooklyn, N. Y. Nursing-bottle.....	449,278	Mar. 31	3241	820	54	1769
Balston, Clyde C., and J. W. Rose, assignors to Health Nursing Bottle Company, Brook-						
lyn, N. Y. Nursing-bottle.....	446,091	Feb. 10	947	232	54	703
Baltimore and Ohio Telegraph Company. (See Van Hovenbergh, Henry, assignor.)						
Baluss, Hamilton, Wayne, Mich. Key-hole guard.....	462,525	Nov. 3	477	116	57	642

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Balzer, Stephen M. (See Cooley and Balzer.)						
Bancroft, George J., Denver, Colo. Spur	444,407	Jan. 6	667	174	54	132
Bancroft, John S., assignor to William Sellers & Company, Incorporated, Philadelphia, Pa. Tool-grinding machine	460,496	Sept. 29	3054	766 767	56	1682
Bancroft, John S., assignor to William Sellers & Company, Incorporated, Philadelphia, Pa. Tool-grinding machine	460,497	Sept. 29	3058	767 768 769	56	1683
Bancroft, Melvin, assignor to Quigley Furniture Company, Whitesborough, N. Y. Type-writer cabinet	465,912	Dec. 29	3048	781	57	1755
Band, Henry F. (See Resback, Fredrick P., assignor.)						
Band, Henry F. (See Therp, Thomas J., assignor.)						
Bandelow, Fred. W., New York, N. Y. Combined coat-collar and head-covering	459,606	Sept. 15	1680	420	56	1406
Bander, Charles B., Reagan, Tex. Corn-sheller	459,953	Sept. 22	2230	560	56	1518
Bandman, Isidore C., Atlanta, Ga. Artificial fuel	446,845	Feb. 24	2173	54	54	965
Banfield, George E., assignor to R. Irvine, Toronto, Canada. Vehicle-shaft	451,014	Apr. 28	2138	529	55	438
Banfield, William E. (See Curtis, Frank, Jr., assignor.)						
Banghart, Philip D., Petoskey, Mich. Finger-ring	460,103	Sept. 29	2459	615	56	1569
Bangs, A. W., et al. (See Bliss, Henry S., assignor.)						
Bangs, David E., Medford, Mass. Artificial fuel	450,994	Apr. 21	1977	55	55	400
Bangs, David E., Medford, Mass. Artificial fuel	451,358	Apr. 28	2674	55	55	543
Bangs, Edwin D., et al. (See Stroner, George, assignor.)						
Bangs, Edwin D., Milwaukee, Wis. Lubricator	456,714	July 28	2260	599	56	457
Bangs, Edwin D., Milwaukee, Wis. Rotary engine	457,980	Aug. 18	1736	456	56	876
Bangs, Edwin D., assignor of two-thirds to M. H. Case and H. G. Underwood, Milwaukee, Wis. Sash-fastener	449,895	Apr. 7	378	96	55	74
Bangs, Lois A., Brooklyn, N. Y., assignor of one-half to M. B. Whiten. Chair	458,140	Aug. 18	1970	510	56	922
Banks, Charles R., Boston, Mass. Fruit-gatherer	444,037	Jan. 6	87	23	54	20
Banks, George L., Fall River, assignor of three-fourths to W. E. Case, J. Q. Smith, B. E. and L. T. Way, I. Hudson, and C. Farwell, Fredonia, Kans. Check-punch	449,993	Apr. 7	518	129	55	100
Banks, George L., assignor to C. B. Farwell, Fredonia, Kans., G. Crooke, Chicago, Ill., and J. R. Lewis, New York, N. Y. Running-gear for vehicles	453,533	June 2	558	142	55	1253
Banks, John F., Bluffton, Tex. Milk-cooler	449,992	Apr. 7	517	129	55	100
Bannatue, Archibald, assignor to Waterbury Clock Company, Waterbury, Conn. Clock-pinion	444,684	Jan. 13	1102	285	54	225
Bannier, Otto F. C., Hamburg, Germany. Device for turning music-sheets	444,390	Jan. 6	638	166	54	125
Banning, Arthur C., St. Joseph, Mo. Hydrocarbon-burner	454,676	June 23	2278	584	55	1602
Bannister, Loring H., Youngstown, Ohio. Oil-can holder for bicycles	449,460	Mar. 31	3580	901	54	1830
Bauowetz, Mathias B., Brown, Iowa. Corn or cotton stalk cutter	454,617	June 23	2191	565	55	1587
Baratine, David, et al. (See Stevenson, William, assignor.)						
Barber, Arthur J. (See Rogers and Barber.)						
Barber, Arthur J., Sodus, N. Y. Car-vestibule and step therefor	461,156	Oct. 13	929	240 241	57	185
Barber, Edwin J., Geve City, assignor of one-half to B. Smith, Monument, Kans. Wrench	459,733	Sept. 22	1891	477	56	1453
Barber, Edwin L., Henrietta, Tex. Soldering-tool	446,765	Feb. 17	2043	506	54	929
Barber, Emmet N., Kent, Ohio. Lumber-measure	448,291	Mar. 17	1680	426 427	54	1456
Barber, Hiram, Chicago, Ill. Spring-draft attachment	447,289	Mar. 3	7	3	54	1120
Barber, Hiram, Chicago, Ill. Spring-draft attachment for vehicles	451,968	May 12	809	206	55	739
Barber, Luther A., Groton, N. Y. Type-writing machine	455,679	July 7	611	160	56	118
Barbour, Frank. (See Young, Robert, assignor.)						
Barbour, George O., Rockland, Mass. Water-conductor iron	446,506	Feb. 17	1653	403	54	853
Barbour, John M. (See Young, Robert, assignor.)						
Barbour, William H., Colorado Springs, Colo. Shirt-collar and tie-holder	444,516	Jan. 13	846	220	54	177
Barckdall, Daniel, assignor of one-half to W. J. Woodward, Indianapolis, Ind. Car-axle box	447,271	Feb. 24	2926	727	54	1106
Barclay, Richard, Sodom, Ohio. Device for attaching horseshoes	448,312	Mar. 17	1718	435	54	1464
Barclay, Robert L., assignor to M. and E. W. Merrill, Brooklyn, N. Y. Drop-hammer	459,607	Sept. 15	1681	420	56	1407
Bard, Harry, Philadelphia, Pa. Glass-blowing machine	453,977	June 9	1205	315	55	1386
Bard, William. (See Gram and Bard.)						
Barden, John S., East Providence, assignor to himself and H. F. Jenks, Pawtucket, R. I. Pipe-wrench	458,934	Sept. 1	606	149	56	1183
Bardon, Merritt C., West Pawlet, Vt. Powder-distributor	447,175	Feb. 24	2755	681	54	1072
Barden, William E., assignor of one-half to E. Hochhaus, St. Paul, Minn. Railway-crossing alarm-signal	464,760	Dec. 8	1169	291	57	1366
Bardill, John, Grant Fork, Ill. Corn-harvester	459,987	Sept. 22	2275	571	56	1526
Bardsley, Joseph, Brooklyn, N. Y. Combined door spring and check	464,951	Dec. 15	1455	366 367	57	1433
Bardwell, Anderson & Co. (See Vornbrock, Frederick, assignor.)						
Bareis, Karl G., Madison, Wis. Check-hook	446,277	Feb. 10	1286	314	54	766
Bargion Compound Rail Company. (See Bargion, Peter, assignor.)						
Bargion, Peter, Oakland, Cal. Chair-plate for compound railway-rails	461,729	Oct. 20	1927	477	57	382
Bargion, Peter, San Francisco, Cal., assignor to Bargion Compound Rail Company, of California. Street-railway rail and pavement	452,333	May 12	1443	357	55	854
Barker, Asbury, Peekskill, N. Y. Photographic-printing frame	466,000	Dec. 29	3216	819	57	1785
Barker Automatic Scale Company. (See Barker, Wells T., assignor.)						
Barker, Edwin F., Vevay, Ind. Car-coupling	465,124	Dec. 15	1785	450	57	1493
Barker, Emma, London, England. Game attachment	454,700	June 23	2315	595	55	1611
Barker, Erastus B., Newark, N. J., assignor to E. & H. T. Anthony & Company, New York, N. Y. Photographic camera	444,806	Jan. 13	1292	335	54	261
Barker, Erastus B., Newark, N. J., assignor to E. & H. T. Anthony & Company, New York, N. Y. Photographic shutter	461,910	Oct. 27	2232	552	57	450
Barker, Hiram, St. Joseph, Mo. Gate	453,534	June 2	559	143	55	1253
Barker, Hugh J. (See Laforge and Barker.)						
Barker, James N., Lima, Ohio. Gas and oil tank	454,106	June 16	1388	363	55	1428
Barker, Jore J., assignor of one-half to J. B. Bellinger, Washington, D. C. Thill-support for vehicles	449,027	Mar. 24	2845	723	54	1686
Barker, Jeremiah J., Washington, D. C., assignor to A. B. S. D., and M. V. Webb. Shaft-support for vehicles	445,277	Jan. 27	2086	538	54	431
Barker, Joel C. (See Hinrichs and Barker.)						
Barker, John F., Springfield, Mass. Crucible-furnace	444,658	Jan. 13	1052	273	54	216
Barker, John L., Racine, Wis. Brake lever and lock	447,600	Mar. 3	535	131	54	1218
Barker, Lewis A., et al. (See Cleveland, Lewis W., assignor.)						
Barker, Louis H., Williamsport, Pa. Photometer and actinometer	464,059	Dec. 1	74	20	57	1151
Barker, Reuben F., Sagola, Mich. Pulley for band-saw mills	451,590	May 5	222	53	55	621

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Barker, Wells T., assignor to Barker Automatic Scale Company, Nashville, Mich. Auto-matic grain-weighing machine	453,460	June 2	453	116	55	1234
Barker, William, Newport, Ky. Machine for grinding lathe-centers	447,553	Mar. 3	467	115	54	1205
Barkley, Charles W., Seward, Nebr. Animal-trap	451,015	Apr. 28	2139	529	55	438
Barkwell, Samuel W. (See Pickett, David M., assignor.)						
Barler, Augustus C., Fremont, Nebr. Hot-air furnace	463,209	Nov. 17	1573	410	57	873
Barler, Augustus C., Fremont, Nebr. Oil-stove	463,613	Nov. 24	2229	588	57	1008
Barler, Barnabas, Delaware, Ohio. Vehicle-wheel	463,133	Nov. 17	1455	377	57	851
Barlet, Harwin T., Lebanon, Pa. Nut-lock	445,029	Jan. 20	1688	434	54	346
Barlet, Jules, Vitry-en-Artois, France. Steam-boiler	462,613	Nov. 3	616	154	57	670
Barlett, Thomas E. (See Pearson and Barlett.)						
Barley, James H. (See Logan and Barley.)						
Barley, James H., Sodalia, Mo. Barrel rack or truck	454,448	June 23	1907	498	55	1536
Barlow, Frederic. (See Beddall, Richard, assignor.)						
Barlow, Heman G. and J. B., Grand Rapids, Mich. Removable binding	445,031	Jan. 20	1691	434	54	346
Barlow, John B. (See Barlow, Heman G. and J. B.)						
Barlow, John H., New Haven, Conn. Bullet-mold	446,173	Feb. 10	1107	271	54	731
Barlow, John H., New Haven, Conn. Bullet-sizer	464,311	Dec. 1	485	116	57	1227
Barlow, Joseph C., Quincy, Ill. Check-rower	455,390	July 7	133	34, 35	56	29
Barlow, S. H. (See Davis, George H., assignor.)						
Barlow, Wesley. (See Joh and Barlow.)						
Barlow, Wilson H., Longwood, Fla. Hub	459,130	Sept. 8	923	222	56	1253
Barnard, Charles A. (See Barnard, Heman A. and C. A.)						
Barnard, Charles A., assignor to Barnard & Leas Manufacturing Company, Moline, Ill. Combined purifying and dust-collecting machine for grain, &c.	460,078	Sept. 22	2414	604	56	1552
Barnard, George D. (See Buscher, John, assignor.)						
Barnard, Heman A. and C. A., assignors to Barnard & Leas Manufacturing Company, Moline, Ill. Self-contained purifier and dust-collector	455,270	June 30	3304	837	55	1806
Barnard, Heman A. and C. A., assignors to Barnard & Leas Manufacturing Company, Moline, Ill. Dust-collector	458,965	Sept. 1	647	{ 158 159 }	56	1191
Barnard, Heman A., assignor to Barnard & Leas Manufacturing Company, Moline, Ill. Clutch mechanism for flour-packers	462,192	Oct. 27	2663	667	57	532
Barnard, Henry H., assignor of one-half to G. S. Sanford, Syracuse, N. Y. Binding attachment for sewing-machines	454,250	June 16	1598	420	55	1469
Barnard & Leas Manufacturing Company. (See Barnard, Charles A., assignor.)						
Barnard & Leas Manufacturing Company. (See Barnard, Heman A., assignor.)						
Barnard & Leas Manufacturing Company. (See Barnard, Heman A. and C. A., assignors.)						
Barnard & Leas Manufacturing Company. (See Cornwall, John B., assignor.)						
Barndt, Halbert F., Chicago, Ill. Bridge-gate	463,677	Nov. 24	2330	611	57	1036
Barnes, Albert A. (See Brummer, George, assignor.)						
Barnes, Burr F., Circleville, Ohio. Flying-machine	460,194	Sept. 29	2596	{ 647 648 }	56	1595
Barnes, Charles, West Liberty, Iowa. Windmill-regulator	456,264	July 21	1522	404	56	308
Barnes, Charles J. (See Thorp, Thomas J., assignor.)						
Barnes, Charles O. (See Barnes, Lucien, Sr., and C. O.)						
Barnes, Charles O. and L., Sr., Syracuse, N. Y. Car-coupling	445,768	Feb. 3	420	105	54	595
Barnes, Charles O. and L., Sr., Syracuse, N. Y. Car-coupling	448,852	Mar. 24	2584	649	54	1636
Barnes Company, W. F. & John. (See Barnes, John, assignor.)						
Barnes, David L., Chicago, Ill. Coupler-gage	450,947	Apr. 21	2008	494	55	406
Barnes, David L., assignor to F. H. Clark, Chicago, Ill. Car-coupling	448,003	Mar. 10	1207	{ 306 307 }	54	1354
Barnes, David L., assignor to E. H. Frost, Chicago, Ill. Car-brake	450,948	Apr. 21	2009	495	55	406
Barnes, David L., Chicago, assignor to Fox Solid Pressed Steel Company, Joliet, Ill. Car-truck frame	461,413	Oct. 20	1369	347	57	279
Barnes, David L., and W. H. Marshall, Chicago, Ill., assignors to Lansberg Brake Company, St. Louis, Mo. Air-brake	462,193	Oct. 27	2664	667	57	532
Barnes, Doctor L., Clayton, N. C. Pea-harvester	451,359	Apr. 28	2674	662	55	543
Barnes, Edward, Handsworth, England, assignor of one-half to H. W. T. Jenner, Washington, D. C. Duplex pumping-engine	456,753	July 28	2342	{ 617 618 }	56	471
Barnes, Edward, Handsworth, England, assignor of one-half to H. W. T. Jenner, Washington, D. C. Duplex pumping-engine	456,754	July 23	2345	618	56	472
Barnes, Edward M., assignor of one-half to J. A. Davies, Cleveland, Ohio. Car-brake	447,272	Feb. 24	2927	{ 727 728 }	54	1107
Barnes, Edward M., assignor of one-half to J. A. Davies, Cleveland, Ohio. Friction-clutch	462,659	Nov. 3	683	173	57	682
Barnes, Elbridge F., New Haven, Conn. Boring attachment for sawing-machines	448,195	Mar. 17	1508	384	54	1424
Barnes, Francis, Westover, Md. Plumb-level for stair-builders	454,701	June 23	2316	595	55	1612
Barnes, George L., Montowese, Conn. Shaft-coupling	465,552	Dec. 22	2484	634	57	1636
Barnes, Gilbert F., Chicago, Ill. Folding hat and clothes rack	444,933	Jan. 20	1549	397	54	318
Barnes, Guy V., assignor to himself and J. M. Burrows, Kittrell, N. C. Toy	465,071	Dec. 15	1674	426	57	1473
Barnes, Harry C. (See Slater and Barnes.)						
Barnes, Horace H. and J. S., Detroit, Mich. Tack-driver	444,685	Jan. 13	1103	285	54	226
Barnes Iron Fence Company. (See Barnes, Lewis, assignor.)						
Barnes, Isaac A. (See Blodgett, William E., assignor.)						
Barnes, John, et al. (See Draper and Holmgren, assignors.)						
Barnes, John, Paxton, Ill. Engine reversing-gear	444,971	Jan. 20	1610	412	54	330
Barnes, John, assignor to W. F. & J. Barnes Company, Rockford, Ill. Reversible rotary cutter	449,571	Mar. 31	3733	938	54	1860
Barnes, John S. (See Barnes, Horace H. and J. S.)						
Barnes, Joshua, Brooklyn, N. Y. Exhauster and ventilator	454,836	June 30	2536	653	55	1659
Barnes, Joshua, Brooklyn, N. Y. Bridge for musical instruments	457,833	Aug. 18	1477	385	56	828
Barnes, Lewis, Belvidere, N. J., assignor to Barnes Iron Fence Company, of New Jersey, Fence	445,531	Feb. 3	3	1	54	511
Barnes, Lewis, assignor of one-half to W. A. Nichols, Philadelphia, Pa. Lady's hat-pin	454,702	June 23	2317	595	55	1612
Barnes, Lewis, Philadelphia, Pa., assignor to Barnes Iron Fence Company, of New Jersey, Fence post	457,860	Aug. 18	1529	398	56	838
Barnes, Loren. (See Richardson, Albert C., assignor.)						
Barnes, Lucien, Sr. (See Barnes, Charles O. and L., Sr.)						
Barnes, Lucien, Sr., and C. O., Syracuse, N. Y. Draw-bar for cars	453,802	June 9	981	255	55	1342
Barnes, Lucien, Sr., and C. O., Syracuse, N. Y. Car-coupling	455,500	July 7	315	80	56	63
Barnes Manufacturing Company. (See Woolaston, Joseph H., assignor.)						
Barnes, Monroe, Bloomington, Ill. Horse-boot	456,688	July 28	2215	587	56	448
Barnes, Philo M., Lockport, N. Y. Dash-board	458,213	Aug. 25	2088	540	56	951
Barnes, William F., assignor to W. F. & John Barnes Company, Rockford, Ill. Drilling-machine	461,253	Oct. 13	1100	280	57	220

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Barnes, William F., I. S. Murray, and L. Lucia, Orlando, Fla.; said Barnes assignor to said Lucia. Mailing-machine	459,387	Sept. 15	1329	333	56	1341
Barnett, Ezra I., Reading, Pa. Combined letter-drop and bell	461,230	Oct. 13	1071	271	57	213
Barnett, Frank H., Hubbard, Nebr. Corn-sheller	462,108	Oct. 27	2537	630	57	508
Barnett & Record. (See Mayo, Edward D., assignor.)						
Barnett, Samuel M., Brooklyn, N. Y. Game apparatus	454,161	June 16	1472	387	55	1445
Barnett, William D., et al. (See Hamilton, Alexander R., assignor.)						
Barnett, William H. (See Dean and Barnett.)						
Barnett, William I. (See Davis, Stockley, and Barnett.)						
Barney, Fred L., et al. (See Tomlinson, Charles E., assignor.)						
Barney, George L., Seward, Nebr. Letter-box	461,490	Oct. 20	1547	379	57	312
Barney, Richard W., Hornellsville, N. Y. Vulcanizing apparatus	446,216	Feb. 10	1167	286	54	742
Barnhart, Aaron E., Millerstown, Pa. Working-barrel attachment and combination of valves	464,785	Dec. 8	1210	301	57	1374
Barnhart, Abner, Brooklyn, N. Y. Window-cleaning chair	457,695	Aug. 11	1246	322	56	774
Barnhart, Clarence L., Flint, Mich. Baby-jumper	459,670	Sept. 15	1792	451	56	1427
Barnhart, Robert L., Pittsburg, Pa. Plecter	448,109	Mar. 10	1357	348	54	1384
Barnhurst, James I. (See Wurster, Charles F., assignor.)						
Barnshaw, Thomas. (See Smith and Barnshaw.)						
Barnstead Pure Water Still Company. (See Barnstead, Robert P., assignor.)						
Barnstead, Robert P., Boston, Mass. Combined water and gas connection and gas-regulator	462,292	Nov. 3	114	28, 29	57	573
Barnstead, Robert P., Boston, Mass. assignor to Barnstead Pure Water Still Company, Portland, Me. Apparatus for distilling water	456,922	July 28	2621	687	56	522
Barnstead, Robert P., Boston, Mass., assignor to Barnstead Pure Water Still Company, Portland, Me. Condenser	456,923	July 28	2625	688	56	523
Barnum, William H., Danbury, and E. C. Oakley, Bethel, assignors to C. H. Merritt, Danbury, Conn. Hat-trimming machine	450,986	Apr. 21	2085	{ 514 515 }	55	420
Baron, Alfred L., assignor of one-half to B. F. Cockayne, Tiffin, Ohio. Lantern	456,924	July 28	2626	688	56	523
Baron, Alfred L., assignor of one-half to B. F. Cockayne, Tiffin, Ohio. Lantern	464,919	Dec. 8	1391	351	57	1410
Baron, Arthur, and J. T. Bibby, Burnley, England. Machine for making three-cornered bags	460,907	Oct. 6	581	147 { 224 225 }	57	114
Baron, Bernhard, Baltimore, Md. Machine for breaking and making fillers for cigars	452,011	May 12	878	{ 225 226 }	55	753
Baron, Bernhard, Baltimore, Md. Method of and machine for making cigar-fillers	452,012	May 12	880	{ 225 226 }	55	753
Baron, Bernhard, Baltimore, Md., assignor to Baron Machine Company of Baltimore City. Method of and machine for making cigar-fillers. (Reissue)	11,199	Oct. 27	2722	{ 685 686 }	57	543
Baron Machine Company of Baltimore City. (See Baron, Bernhard, assignor.) (Reissue.)						
Barr Cash and Package Carrier Company. (See Weaver, Henry M., assignor.)						
Barr, Fredric E., Saratoga, Ark. Planter	444,228	Jan. 6	405	{ 100 101 }	54	80
Barr, Henry G., Westborough, and F. E. Peck, East Wareham; said Peck assignor to E. W. Law, Cambridge, Mass. Velocipede	457,242	Aug. 4	488	{ 129 130 }	56	625
Barr, James C., et al. (See Moore, Marion, assignor.)						
Barr, John, Carroll, Md. Thill-retainer for vehicles	460,174	Sept. 29	2569	641	56	1590
Barr, John H., Meriden, Kans. Feed-board for thrashing-machines	457,948	Aug. 18	1683	441	56	866
Barr, Nicholas, Cayuta, N. Y. Car-coupling	465,773	Dec. 22	2814	722	57	1700
Barr, Wesley C., Bloomfield, Ohio. Portable hoisting apparatus	458,993	Sept. 8	605	171	56	1269
Barratt, John, New York, assignor to R. H. Benary, Tompkinsville, N. Y. Resonator for skin-headed musical instruments	455,297	July 7	2	1	56	3
Barro, Charles A., assignor to Société de Fondation des Chemins de Fer Glissants Perfectionnés, Paris, France. Sliding railway	465,151	Dec. 15	1827	{ 463 464 }	57	1501
Barrelle, Orlando, South Hartford, N. Y. Checkrein attachment	453,435	June 2	414	108	55	1225
Barrett, Albert, Kansas City, Mo. Thermal cut-out	445,217	Jan. 27	1996	515	54	414
Barrett, Alfred. (See Barrett, Charles A. and A.)						
Barrett, Alfred, et al. (See Graf, Adolph J. C., assignor.)						
Barrett, Charles A., et al. (See Graf, Adolph J. C., assignor.)						
Barrett, Charles A., London, England. Coin-freed dynamometer	453,729	June 9	866	225	55	1320
Barrett, Charles A. and A., London, England. Coin-freed dynamometer	452,688	May 19	2006	{ 501 502 }	55	970
Barrett, Charles A. and A., London, England. Coin-freed dynamometer	459,062	Sept. 8	812	197	56	1230
Barrett, Cornelius T., Brooklyn, N. Y., assignor of one-fourth to H. W. Douty, Jersey City, N. J. Signaling apparatus	461,518	Oct. 20	1598	{ 390 391 }	57	321
Barrett, Frederick W., Springfield, assignor to D. D. Clayton, Upper Sandusky, Ohio. Statistic book	444,060	Jan. 6	124	30, 31	54	27
Barrett, Frederick W., assignor to Barrett Publishing Company, Springfield, Ohio. Tally-sheet	460,518	Sept. 29	3104	776	56	1693
Barrett, Horatio C., et al. (See Hipwood, George, assignor.)						
Barrett, Horatio C., Boston, Mass. Folding or collapsible food-bucket	459,388	Sept. 15	1332	334	56	1341
Barrett, James E. (See Hagan, Levi A., assignor.)						
Barrett, James O., Meadville, Pa. Iron vise	453,793	June 9	972	252	55	1340
Barrett, James O., assignor to Meadville Vise Company, Limited, Meadville, Pa. Vise	444,326	Jan. 6	539	140	54	108
Barrett, John A., Brooklyn, N. Y., assignor to Standard Underground Cable Company, Pittsburg, Pa. Electric conductor	462,681	Nov. 10	736	191	57	701
Barrett, John M. (See Wright and Barrett.)						
Barrett, Josiah, Allegheny, assignor to Duff Manufacturing Company, Pittsburg, Pa. Lifting-jack	455,993	July 14	1108	292	56	219
Barrett, Josiah, Allegheny, assignor to Duff Manufacturing Company, Pittsburg, Pa. Lifting-jack	455,994	July 14	1111	293	56	220
Barrett, Josiah, Allegheny, assignor to Duff Manufacturing Company, Pittsburg, Pa. Lifting-jack	455,995	July 14	1113	293	56	220
Barrett, Mora M., San Francisco, Cal. Gas-engine attachment	452,174	May 12	1190	300	55	806
Barrett, Mora M., and J. F. Daly, assignors to Pacific Gas Engine Company, San Francisco, Cal. Operating mechanism for gas-engines	463,435	Nov. 17	1939	506	57	943
Barrett, Mora M., and J. F. Daly, assignors to Pacific Gas Engine Company, San Francisco, Cal. Valve-regulating governor for gas-engines	463,436	Nov. 17	1940	506	57	943
Barrett Publishing Company. (See Barrett, Fredrick W., assignor.)						
Barrett, Sidney H., assignor to Barrett Storage Battery Company, Springfield, Mass. Electrode for secondary batteries	445,872	Feb. 3	590	144	54	627
Barrett, Simon A. (See McFarlane and Barrett.)						
Barrett, Thomas, and E. A. Copp, Adelaide, South Australia. Combined fish-plate and nut.	449,659	Apr. 7	9	2	55	4
Barrett Storage Battery Company. (See Barrett, Sidney H., assignor.)						
Barrett, William, Chicago, Ill. Finger-guard	460,104	Sept. 29	2459	615	56	1569

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Barri, Martin, New York, N. Y., assignor to Lamson Consolidated Store Service Company, of New Jersey. Pneumatic-tube apparatus	452,471	May 19	1680	422	55	907
Barringer, Jacob P., and T. H. Johnston, Harrisburg, Pa. Letter-displaying device for lamps	456,755	July 28	2348	619	56	472
Barrington, William A., Louisville, Ky. Coffee-pot	453,365	June 2	287	76	55	1301
Barritt, Franklin, New York, N. Y., assignor to C. H. Demison. Index for books	453,535	June 2	560	143	55	1253
Barron, Adolph M., Kansas City, Mo. Thermostat	460,519	Sept. 29	3106	777	56	1694
Barron, Ernest R., <i>et al.</i> , executors. (See Wallace, Casper D., assignor.)	446,846	Feb. 24	2173	541	54	965
Barron, James. (See Fitzgerald, James H., assignor.)						
Barron, John D., near Calvert, Tex. Fertilizer-distributor	456,933	Aug. 4	7	2	56	534
Barron, John J., Valmont, Colo. Cotton-chopper	445,461	Jan. 27	2343	609	54	483
Barron, Miles K., Canton, assignor of one-half to W. W. White, Forest City, Ill. Hay-loader	465,052	Dec. 15	1649	420	57	1468
Barron, Walter J., Brooklyn, N. Y. Ticket-holder	460,769	Oct. 6	372	92	57	73
Barron, Walter J., Brooklyn, N. Y. Type-writing machine	461,863	Oct. 27	2148	530	57	434
Barron, Walter J., Brooklyn, N. Y. Type-writing machine	463,614	Nov. 24	2230	589	57	1008
Barron, Walter J., assignor to Yost Writing Machine Company, New York, N. Y. Type-writing machine	444,873	Jan. 20	1441	375	54	298
Barron, Walter J., assignor to Yost Writing Machine Company, New York, N. Y. Type-writing machine	452,825	May 26	2228	559	55	1022
Barron, Walter J., Brooklyn, assignor of one-half to A. Densmore, New York, N. Y. Type-writing machine	450,880	Apr. 21	1921	471	55	388
Barron, Walter J., Brooklyn, assignor to Remington Standard Typewriter Manufacturing Company, Lion, N. Y. Type-writing machine	463,934	Nov. 24	2738	710	57	1103
Barrow, Thomas, assignor of one-half to J. B. Roach, Chester, Pa. Boiler-stay	459,954	Sept. 22	2331	560	56	1518
Barrow, Thomas E., assignor of one-third to W. H. Gurney, Mansfield, Ohio. Cash-carrier apparatus	462,806	Nov. 10	929	242	57	740
Barrows, Albert, Brockton, Mass. Shoe	460,770	Oct. 6	373	92	57	73
Barrows, Edward F., assignor to Barrows Manufacturing Company, Lockport, Ill. Sash-fastener	461,254	Oct. 13	1101	281	57	220
Barrows, John F., Saginaw, Mich. Two-wheeled vehicle	458,514	Aug. 25	2598	633	56	1047
Barrows Manufacturing Company. (See Barrows, Edward F., assignor.)						
Barry, Charles, Corning, N. Y. Railway time-signal	444,327	Jan. 6	541	140	54	108
Barry, Edward P. (See St. John, John C., assignor.)						
Barstow, Clark M., Bryan, Ohio. Book-mark	448,470	Mar. 17	1968	494	54	1511
Barts, Ernst H., Dieterich, Ill. Folding crate	449,193	Mar. 31	3110	785		
Barth, Carl G., and W. L. Clark, Philadelphia, Pa.; said Barth assignor, by mesne assignments, to said Clark. Flanging-machine	459,345	Sept. 8	1254	309	56	1317
Barth, Nicholas, <i>et al.</i> (See Cone, John, assignor.)						
Barthel, Michael, San José, Cal. Ant-exterminator	459,246	Sept. 8	1101	268	56	1286
Barthels, Julius, Bonn, Germany. Horse-stopping device	451,360	Apr. 28	2676	663	55	543
Bartholomew, Albert W., assignor to T. C. Ashley, Boston, Mass. Key-fastener	454,449	June 23	1909	498	55	1536
Bartholomew, Ermon O., St. Louis, Mo. Center-draft grate attachment	453,101	May 26	2689	678	55	1111
Bartholomew, George E., assignor of one-half to E. R. Edwards, Cincinnati, Ohio. Spring-gear for vehicles	446,656	Feb. 17	1874	465	54	896
Bartholomew, George E., assignor to E. Woning, Cincinnati, Ohio. Two-wheeled vehicle	457,297	Aug. 4	588	155	56	641
Bartholomew, George W., Jr. (See Kalteyer and Bartholomew.)						
Bartholomew, Harry S. (See Kalteyer and Bartholomew, assignors.)						
Bartholomew, Henry. (See Rube and Bartholomew.)						
Bartholomew, Isaac H., Northford, Conn. Brush-holder for commutators	452,561	May 19	1811	455	55	932
Bartholomew, John. (See Bartholomew, William, assignor.)						
Bartholomew, John B., Des Moines, Iowa. Grain-conveyor	446,566	Feb. 17	1743	429	54	871
Bartholomew, John B., Des Moines, Iowa. Grain-measurer	454,898	June 30	2643	678	55	1679
Bartholomew, Lewis, Philadelphia, assignor of one-half to D. J. Waller, Bloomsburg, Pa. Grain-cleaning mill	456,077	July 14	1228	322	56	242
Bartholomew, Thomas W., Danville, Pa. Shutter-blower	447,290	Mar. 3	10	4	54	1120
Bartholomew, Thomas W., Danville, Pa. Bracket	453,536	June 2	562	143	55	1254
Bartholomew, William, assignor of one-half to J. Bartholomew, Amsterdam, N. Y. Carpet-cleaning machine	459,540	Sept. 15	1574	393	56	1386
Bartl, Edmund A., and J. C. Bowman, Scranton, Pa. Slate-picker	454,393	June 16	1816	475	55	1510
Bartlett, Alpheus J., Pomona, Cal. Sprinkler	455,151	June 30	3119	792	55	1770
Bartlett, Edward, Belleville, Canada. Mowing-machine	459,264	Sept. 8	1123	274	56	1291
Bartlett, Edwin E. (See Harlow, Charles F., assignor.)						
Bartlett, Frank L., Portland, Me. Machine for making pulp-cylinders	447,455	Mar. 3	304	76	54	1175
Bartlett, Frederick A., Lockport, Ill. Watch-maker's tweezers	465,606	Dec. 22	2570	654	57	1652
Bartlett, George S., Anaconda, Mont. Breach-loading shotgun	464,060	Dec. 1	76	20, 21	57	1151
Bartlett, James A., North Attleborough, Mass. Swivel-hook	464,291	Dec. 1	455	109	57	1221
Bartlett, Jeremy, and J. Naber, Jr., Collins, N. Y. Swinging cover	451,447	May 5	3	1	55	579
Bartlett, Lewelen, Yates Center, Kans. Weighing-scoop	446,179	Feb. 10	1108	271	54	731
Bartlett, Lincoln H., assignor of one-half to C. R. Harshberger, Chicago, Ill. Neckscarf	460,259	Sept. 29	2688	670	56	1614
Bartlett, Stephen A., South Amboy, N. J. Adjustable pole	463,471	Nov. 17	1992	521	57	954
Bartlett, Theron F., Denver, Colo. Grass-receptacle for lawn-mowers	448,188	Mar. 10	1480	378	54	1409
Bartlett, William, Derry, N. H. Feed-gage for printing-presses	452,022	May 12	898	230	55	756
Bartlett, William E., Edinburgh, Scotland. Wheel-tire	448,793	Mar. 24	2493	624	54	1618
Bartlett, William E., Edinburgh, Scotland. Wheel. (Reissne.)	11,216	Dec. 29	3708	946	57	1881
Bartley, Elias H., and W. F. Campbell, Brooklyn, N. Y. Package for liquid foods, &c	456,934	Aug. 4	8	2	56	534
Bartlin, Charles A., Memphis, Tenn. Beer-pump	457,243	Aug. 4	491	130	56	625
Barton, Delbert E., San Francisco, Cal. Cultivator attachment	451,253	Apr. 28	2517	620	55	512
Barton, Delbert E., San Francisco, Cal. Cultivator-beam	451,254	Apr. 28	2518	621	55	513
Barton, Delbert E., San Francisco, Cal. Cultivator-clamp, &c	451,255	Apr. 28	2519	621	55	513
Barton, Delbert E., San Francisco, Cal. Cultivator attachment	451,256	Apr. 28	2520	621	55	513
Barton, Delbert E., San Francisco, Cal. Draft-equalizing cultivator	465,421	Dec. 15	2255	579		
Barton, Delbert E., San Francisco, Cal. Shoe for cultivators	465,422	Dec. 15	2256	579	57	1583
Barton, Delbert E., Alameda, Cal. Clamp for the attachment of cultivator-teeth	456,393	July 21	1734	458	56	347
Barton, Delbert E., Los Angeles, assignor of one-half to P. A. Wagner, San Francisco, Cal. Cultivator	451,252	Apr. 28	2516	620	55	512
Barton, Edwin W., Lawrence, Mass. Jordan engine for grinding pulp	444,644	Jan. 13	1034	269	54	213
Barton, Edwin W., Lawrence, Mass. Contracting core for paper rolls	459,265	Sept. 8	1125	274	56	1292
Barton, Francis M., and J. C. Williams, Libertyville, Mo. Band-cutting attachment for thrashers	459,734	Sept. 22	1892	477	56	1453
Barton, Henry, assignor to J. A. Illife, London, England. Electric switch	465,444	Dec. 22	2295	589	57	1601

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Barton, Isaac T., assignor of three-fourths to T. A. Woodward, Battle Creek, Mich. Carpet-renovator.	461,414	Dec. 1	631	155	57	1254
Barton, N. B., <i>et al.</i> (See Berlepsch, Henry J., assignor.)						
Barton, Samuel J., Marlin, Tex. Trace-carrier.	454,562	June 23	2081	537	55	1568
Bartsch, Edwin, San Francisco, Cal. Electro-therapeutic syringe.	449,651	Mar. 31	3884	972	54	1887
Barwis, Thomas S., assignor of one-half to J. L. Bowen, Calgary, Canada. Driving mechanism.	449,666	Mar. 31	3794	952	54	1871
Bascom, Calvin J., Ellis, Kans. Outlet-valve for railway water-tanks.	463,472	Nov. 17	1993	521	57	954
Bäse, Eduard C., Burg, near Magdeburg, Germany. Rim for spectacles or eyeglasses.	451,016	Apr. 28	2140	529	55	438
Bash, Isador, Boston, Mass. Cap.	457,069	Aug. 4	219	53	56	575
Bashaw, Trifley F., and B. P. Socvill, St. Lawrence, S. D. Lock for wagons.	462,682	Nov. 10	738	191	57	762
Baskfield, John J., Beaver Dam, Wis. Hame.	458,355	Aug. 25	2340	571	56	998
Basom, Ransford W., Pittsburg, Kans. Steam-engine.	445,967	Feb. 10	739	181	54	667
Bass, David J. (See Bass, Sampson H. and D. J.)						
Bass, James. (See Merrill and Bass.)						
Bass, James, assignor to M. and E. W. Merrill, Brooklyn, N. Y. Drop-hammer.	459,131	Sept. 8	924	222	56	1253
Bass, Sampson H. and D. J., Bolivar, Mo. Wagon end-gate.	455,152	June 30	3120	792	55	1770
Bassett, Chancey E., Burnip's Corners, Mich. Stump-extractor.	454,107	June 16	1389	363	55	1428
Bassett, Fred. H., Saranac Lake, N. Y. Curtain-fixture.	448,625	Mar. 24	2227	559	54	1567
Bassett, Norman C., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Controlling device for elevators.	451,231	Apr. 28	2478	612	55	503
Bassett, Norman C., assignor to Hydraulic Elevator Company, Chicago, Ill. Elevator-operating device.	453,955	June 9	1174	307	55	1380
Bassett, Norman C., Chicago, Ill., assignor, by mesne assignments, to National Company, of Illinois. Elevator-operating mechanism.	456,108	July 14	1269	333 334	56	250
Bassett, Norman C., Lynn, Mass., assignor to National Company, Chicago, Ill. Controlling device for elevators.	456,463	July 21	1847	489	56	368
Bassett, Norman C., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Differential nut for securing pinions on shafts.	454,019	June 16	1269	329	55	1405
Bassett, Norman C., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Brake mechanism for street-cars.	454,450	June 23	1910	498 499	55	1536
Bassett, Norman C., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric locomotive.	455,298	July 7	3	1, 2	56	3
Bassett, Norman C., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Armature for motors and generators.	456,925	July 28	2627	688	56	523
Bassett, Norman C., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric-railway motor.	457,102	Aug. 4	262	65, 66	56	583
Bassett, Norman C., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Elevator-controlling mechanism.	458,555	Sept. 1	1	1	56	1065
Bassett, Norman C., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Elevator-controlling mechanism.	458,556	Sept. 1	2	1	56	1065
Bassett, Royal M. (See Stevenson and Bassett.)						
Bassford, Charles, Sevastopol, Wis. Thill-coupling.	461,996	Oct. 27	2363	586	57	475
Basshor & Co., Thomas C. (See Cross, Frank W., assignor.)						
Bassinger, Stephen, assignor of one-half to W. D. Morton, Italy, Tex. Animal-trap.	448,313	Mar. 17	1719	435 436	54	1464
Bassler, John H., Myerstown, Pa. Welding by electricity.	456,540	July 21	1975	521	56	393
Bast, William H., Olinda, Cal. Square for rafter and stair work.	458,441	Aug. 25	2478	603	56	1023
Bastian, Charles L., Chicago, Ill. Hose-coupling.	456,756	July 28	2350	619	56	473
Bastow, John T., Clayville, N. Y. Drill-chuck.	465,826	Dec. 29	2897	743	57	1727
Bataille, Achille, New York, N. Y. Metal door or gate.	448,314	Mar. 17	1722	436	54	1464
Batchelder, Albion C., <i>et al.</i> (See Leach, Rufus, assignor.)						
Batchelder, William W., Jr., Boston, assignor of one-half to J. R. Green, Malden, Mass. Harp.	456,977	Aug. 4	85	20	56	549
Batcheller, Justin, Wallingford, Vt. Flush-hinge for tables, desks, &c.	445,532	Feb. 3	5	1	54	511
Batchellor, Clifford H., Providence, R. I. Compound engine.	459,851	Sept. 22	2070	520	56	1489
Batchelor, Harry F., <i>et al.</i> (See Waldecker, Henry C., assignor.)						
Batchelor, Jacob F., 2d, Saginaw, Mich. Switch-operating mechanism.	457,178	Aug. 4	378	97	56	605
Batchelor, Prentiss J., St. Louis, Mo. Chime-strengtheners for kegs.	458,935	Sept. 1	606	149	56	1183
Batchman, William J., Glendale, S. D. Smoke-condenser.	463,184	Nov. 17	1537	401	57	866
Batdorf, Frank W., Grand Rapids, Mich. Toy game.	444,112	Jan. 6	212	51	54	43
Bate, Charles M., assignor of one-half to F. E. D. Acland, London, England. Door-securer.	464,415	Dec. 1	632	155	57	1254
Bateman, Eugene E., Marquez, Tex. Saddle-jack.	460,422	Sept. 29	2942	735	56	1660
Bateman, George C., assignor of one-half to R. Sheppard, Halifax, Canada. Game-counter for billiard-tables.	451,993	May 12	851	218	55	748
Bateman, William H. (See Parkinson, Henry, assignor.)						
Bates, Andrew J., assignor of one-half to W. E. P. Anderson, Carlinville, Ill. Seeder and cultivator.	460,079	Sept. 22	2416	604	56	1553
Bates, Charles C., and C. D. Wren, Centerville, Miss. Hand fertilizer-distributor.	448,004	Mar. 10	1210	307	54	1354
Bates, Charles J. (See Wegmann and Bates.)						
Bates, Cyrus E., Bloomington, Ill. Baling-press.	455,731	July 14	718	189	56	147
Bates, David H., and H. Van Hovenbergh, New York, N. Y. Printing-telegraph.	455,294	June 30	3368	849	55	1819
Bates, Eddo V., Dracut, Mass. Carding machinery.	444,720	Jan. 13	1147	295	54	234
Bates, Eddo V., Dracut, assignor of one-half to R. H. Hart, Lowell, Mass. Card-feeding machine.	456,212	July 21	1432	379	56	291
Bates, Edward T., Washington, D. C. Atomizer.	460,458	Sept. 29	2995	750	56	1671
Bates, Edwin G., New York, N. Y. Numbering-machine.	456,874	July 28	2535	666	56	506
Bates, Francis G. (See Benedict, Edgar H., assignor.)						
Bates, Francis G. (See Benedict and Bates.)						
Bates, Francis G., <i>et al.</i> (See Phillips, William H., assignor.)						
Bates, Francis G., Philadelphia, Pa. Steam-boiler furnace.	445,419	Jan. 27	2289	593 594	54	473
Bates, Francis G. and F. H., Philadelphia, Pa.; said F. H. Bates assignor to said Francis G. Bates. Ratchet-tool.	453,537	June 2	563	143	55	1254
Bates, Frank H. (See Bates, Francis G. and F. H.)						
Bates, Frank L., Sacramento, Cal. Smoke-consumer.	455,153	June 30	3121	793	55	1771
Bates, Henry A., New York, N. Y. Thread-unwinding device for sewing machines.	463,832	Nov. 24	2545	664	57	1067
Bates, Joseph W., and C. E. Blake, Minneapolis, Minn. Reversible electric trolley.	463,024	Nov. 10	1271	330	57	807
Bates, Louis, Jersey City, N. J. Electric door-opener.	448,110	Mar. 10	1358	348	54	1384
Bates, Louis E., New York, N. Y. Moistening-pad.	461,231	Oct. 13	1072	271	57	213
Bates, Onward, Chicago, Ill. Hoisting mechanism.	464,786	Dec. 8	1212	302	57	1375
Bates, Peter S., assignor to W. F. B. Stewart, York, Pa. Hanger for electric lamps.	451,149	Apr. 28	2334	579 580	55	478
Bates, Willard A., Princeton, Me. Machine for splitting leather strips.	445,744	Feb. 3	377	96	54	587

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Bates, William F., <i>et al.</i> (See Beery, Samuel M., assignor.)						
Bathen, L. O., <i>et al.</i> (See Jacoby, William, assignor.)						
Bathrick, Lewis E., Passaic, N. J. Stationary wash-stand	450,801	Apr. 21	1787	434	55	364
Bätjer, Fritz, Hamburg, Germany. Apparatus for propelling boats	448,771	Mar. 24	2459	615	54	1612
Batman, Jacob, Selin's Grove, Pa. Chimney-cap	457,628	Aug. 11	1149	293	56	756
Batson, Hezekiah Y., Traveler's Rest, S. C. Attachment for hominy-mills	450,606	Apr. 21	1453	357	55	293
Batt, Charles F., Brooklyn, N. Y. Folding chair	464,670	Dec. 8	1019	255	57	1339
Battolle, John G., Covington, Ky. Door-mat	447,456	Mar. 3	306	77	54	1175
Batter, Frank, Marshfield, Oreg. Apparatus for preserving piles	452,513	May 19	1737	437	55	917
Battin, William W. (See Harms, John M., assignor.)						
Battle Creek Machinery Company. (See Metcalf, Foster M., assignor.)						
Battles, Rush S., Girard, Pa. Locomotive	455,154	June 30	3123	793	55	1771
Baude, Emil F., Cincinnati, Ohio. Manufacture of Portland cement	453,753	June 9	905		55	1327
Bauder, Silas E., Sandusky, Ohio. Curtain-pole bracket	460,939	Oct. 13	626	161	57	129
Baudouin, Henry E., and E. T. H. Delort, Paris, France. Manufacture of ammonia from sodium nitrate	454,108	June 16	1390	363	55	1428
Baner, Charles A., assignor to Warder, Bushnell & Glessner Company, Springfield, Ohio. Cord attachment for grain-binders	466,088	Dec. 29	3349	856	57	1813
Bauer, Ferdinand, St. Louis, Mo. Combined steam-condenser, oil-extractor, and feed-water heater	456,464	July 21	1848	490	56	369
Bauer, William M., Chicago, Ill. Action-support for upright pianos	454,576	June 23	2102	543	55	1572
Bauer, Thomas, Kokomo, Ind. Cold handle for coffee or tea pots	460,626	Oct. 6	150	36, 37	57	32
Baugh, Edward H., Pocaahontas, Miss. Seed-sower	459,922	Sept. 22	2191	550	56	1510
Baugh, Frederick, Alliance, Ohio. Molder's flask	450,802	Apr. 21	1788	435	55	364
Baugh, Frederick, Alliance, Ohio. Molder's flask	451,017	Apr. 28	2141	529	55	439
Baugh, James A., assignor of one-half to P. F. Lewis, Aurora, Tex. Cotton-chopper	457,040	Aug. 4	160	39	56	564
Baugh, Thomas W., Carlisle, Iowa. Surgical instrument	460,940	Oct. 13	627	161	57	129
Baughman, Alton L. and D. L., Albion, Ind. Grain-drill	450,478	Apr. 14	1263	{ 308 309 }	55	247
Baughman, Delmer L. (See Baughman, Alton L. and D. L.)						
Baughman, Josiah. (See Kring and Baughman.)						
Baughman, Sherman E., Taylorville, Ill. Vehicle running-gear	446,415	Feb. 17	1509	{ 371 372 }	54	824
Baum, Henry C., assignor of one-half to J. H. Ferguson, Denver, Colo. Manufacturing Portland cement	446,911	Feb. 24	2305		54	989
Baum, Jacob, Cincinnati, Ohio. Permutation-lock	446,657	Feb. 17	1875	465	54	896
Baum, Jacob, Cincinnati, Ohio. Making shells or casings for safes, &c	454,162	June 16	1474	387	55	1445
Baum, John K. (See Parkinson, Thomas J., assignor.)						
Baum, Josephus, Ridge Farm, Ill. Pitman connection for harvesters	447,930	Mar. 10	1082	271	54	1330
Baumann, Frederick, Chicago, Ill. Strengthening and building foundations	457,144	Aug. 4	322	83	56	595
Baumann, Henry. (See Krautter, August, assignor.)						
Baumann, Robert, assignor to Electric Alarm Lock Company, St. Louis, Mo. Automatic electric switch	453,572	June 2	615	157	55	1264
Baumann, William V., Minneapolis, Minn. Curling-iron heater	460,055	Sept. 22	2340	595	56	1546
Baumeister, Albert G., and N. Heinz, Sandusky, Ohio. Turning-machine	445,032	Jan. 20	1692	435	54	346
Baumer, Anton F., Syracuse, N. Y. Altar-candle	455,501	July 7	316	81	56	64
Baumer, William A., <i>et al.</i> (See McCullough, George C., assignor.)						
Baumgarten, Albert. (See Morgan, Edgar H. and C., assignors.)						
Baumgarten, Albert, <i>et al.</i> (See Redlinger, Michael, assignor.)						
Baumgarten, Henry, assignor of one-half to G. H. Thompson, Liverpool, and J. J. Greenwood, Newport, England. Pencil-sharpener and point-protector	454,623	June 23	2200	567	55	1588
Baumgarten, Herman, Washington, D. C. Tag	444,739	Jan. 13	1196	309	54	242
Baumgartner, James A. (See Duncan, Charles W., assignor.)						
Baumotte, Hermann, Seugscheiderberg, Germany. Manufacture of stone-dressing tools	465,748	Dec. 22	2781	710	57	1694
Baunach, John, Newark, N. J. Traveling-bag fastening	444,205	Jan. 6	368	91	54	74
Baur, Albert, Gispersleben, near Erfurt, Germany. Artificial musk	451,847	May 5	604		55	695
Baur, John, Chicago, Ill. Feather-renovator	464,213	Dec. 1	326	80	57	1195
Bausch, Edward, G. Hommel, and A. Wollensak, assignors to Bausch & Lomb Optical Company, Rochester, N. Y. Photographic shutter	444,083	Jan. 6	161	40, 41	54	35
Bausch & Lomb Optical Company. (See Bausch, Hommel, and Wollensak, assignors.)						
Bausch, William, Rochester, N. Y. Lens-grinding machine	445,349	Jan. 27	2186	{ 566 567 }	54	453
Bausch & Sons, C. H. (See Bausch, William H., assignor.)						
Bausch, William H., assignor to C. H. Bausch & Sons, Holyoke, Mass. Drilling-machine	457,756	Aug. 11	1357	351	56	799
Bavter, Charles S., Brooklyn, N. Y. Valve	452,357	May 19	1486	368	55	872
Baxter Electric Manufacturing and Motor Company. (See Baxter, William, Jr., assignor.)						
Baxter Electric Motor Company. (See Baxter, William, Jr., assignor.)						
Baxter, William, Jr., Baltimore, Md. System of operating electric elevators	449,611	Mar. 31	3799	{ 954 955 956 957 }	54	1872
Baxter, William, Jr., Baltimore, Md. Electric elevator	464,470	Dec. 1	708	173	57	1270
Baxter, William, Jr., Baltimore, Md. Governing device for electric motors	466,028	Dec. 29	3258	831	57	1795
Baxter, William, Jr., Baltimore County, assignor to Baxter Electric Manufacturing and Motor Company, Baltimore, Md. Automatic switch for electric motors	449,660	Apr. 7	10	2	55	5
Baxter, William, Jr., Baltimore County, assignor to Baxter Electric Motor Company, Baltimore, Md. Electrical hoisting-machine	449,661	Apr. 7	14	3, 4	55	5
Baxter, William, Jr., Baltimore County, assignor to Baxter Electric Motor Company, Baltimore, Md. System of operating electric elevators with landing-switches only	449,662	Apr. 7	21	5, 6	55	6
Baxter, William, Jr., Baltimore, Md., assignor to Baxter Electric Motor Company, of Maryland. Electric controller for elevators	463,615	Nov. 24	2234	589	57	1009
Baxter, William H., Leeds, England. Elevator and screen for crushing-machines	446,319	Feb. 10	1350	329	54	779
Bayaud, Theodore W. (See Peer, John A., assignor.)						
Bayaud, Theodore W. (See Wood, Frank B., assignor.)						
Bayer, Charles, and P. Scherberg, New York, N. Y. Folding gate	455,960	July 14	1064	279	56	211
Bayer, Joseph C., Portland, Oreg. Sheet-metal roofing	451,550	May 5	157	38	55	609
Bayles, James C., East Orange, N. J. Flexible metallic hose	445,153	Jan. 27	1898	490	54	395
Bayles, James C., East Orange, N. J. Means for attaching coupling-castings to sheet-metal pipe	455,502	July 7	317	81	56	64
Bayles, James C., East Orange, N. J. Sheet-metal pipe	455,539	July 7	387	100	56	76
Bayley, Charles H., Boston, Mass. Vamp-marking machine	456,542	July 28	1981	523	56	403
Bayley, Richard W. (See Westinghouse and Bayley.)						
Bayley, Richard W., assignor to Westinghouse Air Brake Company, Pittsburg, Pa. Air-brake. (Reissue)	11,145	Feb. 17	2166	539	54	955

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Baylor, Robert W., Norfolk, Va., assignor of one-half to A. M. Murray, Chicago, Ill. Knock-down barrel	466,294	Dec. 29	3673	939	57	1874
Baynes, William. (See Morgan, Charles H., assignor.)						
Bayorgeon, Joseph, <i>et al.</i> (See De Loria, Louis, assignor.)						
Bays, William W., Knoxville, Tenn. Combined rain-water cut-off and filter.....	452,538	May 19	1776	{ 447 448 }	55	925
Beach, Charles A., Albany, N. Y. Street-railway tie	448,005	Mar. 10	1211	308	54	1355
Beach, Charles A., Albany, N. Y. Tramway-switch	450,607	Apr. 21	1454	357	55	293
Beach, Charles A., Albany, N. Y. Tramway-switch	456,543	July 28	1983	523	56	403
Beach, Clifton B., Cleveland, Ohio. Machinery for forming car-wheels	445,238	Jan. 27	2023	522	54	419
Beach, Franklin G., Chicago, Ill., assignor to American Bell Telephone Company, Boston, Mass. Telephone-exchange apparatus	447,485	Mar. 3	364	90	54	1187
Beach, Fred H., Rochester, N. Y. Machine for attaching stays to the corners of boxes	447,225	Feb. 24	2841	{ 704 705 }	54	1089
Beach, Fred H., Rochester, N. Y. Machine for attaching stays to the corners of boxes. (Re-issue)	11,167	May 26	2845	714	55	1137
Beach, Frederick W., Brook's Vale, Conn. Nail-set	454,512	June 23	2007	520	55	1555
Beach, George H., <i>et al.</i> (See Sylvester, Cyrus O., assignor.)						
Beach, Henry D., and G. F. Palm, assignors to Standard Advertising Company, Coshocton, Ohio. Press for printing wood signs	460,929	Oct. 6	608	154	57	118
Beach, James C. (See Schottel, Albert B., assignor.)						
Beach, James W., Fernwood, Ill. Pneumatic conveyor	444,038	Jan. 6	90	23, 24	54	21
Beach, James W., Fernwood, Ill. Spring-heel	458,010	Aug. 18	1784	466	56	885
Beach, John S. (See Phillips, William H., assignor.)						
Beach, Louis, assignor of one-half to O. Lambert, La Crosse, Wis. Automatic fire-lighter	463,437	Nov. 17	1941	506	57	943
Beach, Oscar W., assignor of one-half to J. P. Curry, Fort Morgan, Colo. Vehicle-axle	446,416	Feb. 17	1511	372	54	824
Beach, Ralph H., assignor to himself and W. Carpenter, St. Paul, Minn. Combined electric motor and lamp-socket	444,807	Jan. 20	1297	337	54	271
Beach, Sharon D., Seymour, Conn. Pulp beating and refining machine	458,010	Nov. 24	2546	664	57	1068
Beacham, Alexander T., Laredo, Tex. Water-cooler	445,667	Feb. 3	241	65, 66	54	559
Beacon Vacuum Pump and Electrical Company. (See Berrenberg, Adolph, assignor.)						
Beacon Vacuum Pump and Electrical Company. (See Berrenberg and Nickerson, assignors.)						
Beacon Vacuum Pump and Electrical Company. (See Edson, William, assignor.)						
Beacon Vacuum Pump and Electrical Company. (See Nickerson, William E., assignor.)						
Beacon Vacuum Pump and Electrical Company. (See Nickerson and Berrenberg, assignors.)						
Beagle, William B., and W. C. Clark, Shelbina, Mo. Axle-box extension for vehicles	452,539	May 19	1779	448	55	925
Beahm, Horace S., assignor of one-half to J. L. Williams, Philadelphia, Pa. Car-coupling	464,787	Dec. 8	1213	302	57	1375
Beal, Forest W., <i>et al.</i> (See Wells, James E., assignor.)						
Beal, Moses, Elyria, Ohio. Core-drilling machinery	450,656	Apr. 21	1572	{ 377 378 }	55	323
Beal, William R. (See Allen, John F., assignor.)						
Beale, Augustus, Brooklyn, assignor of one-half to J. O. Noakes, New Rochelle, N. Y. Thill-coupling	451,896	June 9	1096	287	55	1364
Beall, Frank. (See Zimmerman and Beall.)						
Beall, John N., Greenfield, Ill. Sash-fastener	445,033	Jan. 20	1693	435	54	347
Beals, Augustus, North Weymouth, Mass. Hammock	458,688	Sept. 1	221	52	56	1108
Beals, Ebenezer, Norwich, N. Y. Tool for twisting wire	444,808	Jan. 20	1298	337	54	271
Beals, Joseph J. (See Pool and Beals.)						
Beam, Belle S., Strother, Mo. Funnel for canning purposes	463,473	Nov. 17	1994	521	57	954
Beam, John W., Argos, Ind. Bridle attachment	460,840	Oct. 6	469	119	57	93
Bean, Carlton S., Nuckolls County, Nebr. Check-row attachment for corn-planters	454,150	June 16	1455	{ 381 382 }	55	1441
Bean, D. H. (See Park, Linden, assignor.)						
Bean, Frank, Medford, assignor to Standard Rivet Company, Boston, Mass. Eyeletting-machine	451,361	Apr. 28	2677	663	55	543
Bean, Fred S. (See Ford, Martin W., Jr., assignor.)						
Bean, John, Los Gatos, Cal. Deep-well pump	457,244	Aug. 4	493	131	56	625
Bean, Martin V. B., Lanesborough, Minn. Pad-press	457,696	Aug. 11	1248	322	56	775
Bean, Martin V. B., Lanesborough, Minn. Clutching-plate for pad-presses	457,697	Aug. 11	1249	322	56	775
Bean, Rufus E., Franklin, N. H. Score-card	453,754	June 9	906	235	55	1327
Bean, Willie F., F. W. Dunnell, Springfield, and G. B. Noyes, Lawrence, Mass. Fire-protector	450,595	Apr. 14	1429	351	55	281
Beane, De Witt C., Newark, N. J. Pipe-stock	444,686	Jan. 13	1104	285	54	226
Beane, Frank, Alba, Mich. Flour and meal sifter	451,362	Apr. 28	2678	663	55	543
Bear, William J. (See Evans and Bear.)						
Beard, Andrew, Woodlawn, Ala. Rotary engine	462,614	Nov. 3	617	{ 154 155 }	57	670
Beard, Edgar C., <i>et al.</i> (See Green, John H., assignor.)						
Beard, Edwin, assignor to Chicago Water-Jacket Condenser Company, Chicago, Ill. Condenser	466,213	Dec. 29	3539	906	57	1849
Beard, Lewis W. (See Westaway and Beard.)						
Beard, Walter R., <i>et al.</i> (See Green, John H., assignor.)						
Beardsley, Frank C., assignor to L. E. Ross and C. E. Scott, Billerica, Mass. Incubator	458,141	Aug. 18	1970	511	56	922
Beardsley, Frank E., Traverse City, Mich. Axle-cutter	456,935	Aug. 4	9	2	56	534
Beardsley, George F. (See Lasher, Morgan E., assignor.)						
Beardsley, Henry C., Eau Claire, Wis. Latch	455,091	June 30	3017	766	55	1751
Beardsley, James E. (See Jewell, John A., assignor.)						
Beardsley, Levi A., Fort Payne, Ala. Construction of buildings	458,700	Sept. 1	237	56	56	1111
Beardsley, William H., and L. M. Hosca, Cincinnati, Ohio. Adding-machine	447,457	Mar. 3	307	77	54	1175
Beardsley, William N., and A. D. Monilton, Bridgeport, Conn., assignors to M. Hartley and M. Graham, New York, N. Y. Cartridge-crimper	458,679	Sept. 1	207	49	56	1105
Beasley, Maria E., Philadelphia, Pa. Notching and cutting hoops for barrels	448,905	Mar. 24	2664	668	54	1650
Beasley, Oliver L. (See Headen and Beasley.)						
Beasley, William F., Baltimore, Md. Registering lock	452,433	May 19	1607	399	55	895
Beasley, William F., Baltimore, Md. Box frame and cover	455,457	July 7	248	63	56	50
Beasley, William F., Baltimore, Md. Mail-bag	463,349	Nov. 17	1801	471	57	916
Beaton, Allan J., New Britain, Conn. Floor and ceiling plate for steam-pipes	453,461	June 2	455	117	55	1234
Beattie, Ida B., Little Rock, Ark. Bed-lounge	457,931	Aug. 18	1658	{ 433 434 }	56	861
Beattie, John, Jr., Fall River, Mass. Armature for dynamo-electric machines and motors	459,923	Sept. 22	2192	550	56	1511
Beatty, Irvin C. (See Fox, Rowland, assignor.)						
Beatty, Irvine C., Merchantville, N. J. Loom	465,515	Dec. 22	2414	617	57	1623

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Beauchamp, Alfred M., Hinsdale, Mass. Wire-nail machine	456,789	July 28	2392	630	56	480
Beauchamp, Francis. (See Dallmeyer and Beauchamp.)						
Beauchéne, Charles, Lake Linden, Mich. Expansion-bit	458,091	Aug. 18	1900	494	56	909
Beandry, Alexander, Boston, Mass. Power-hammer	461,917	Oct. 27	2243	{ 554 555 369 370 }	{ 57 55 }	452 1433
Beanbarnais, Eugène de, Kingston, Canada. Liquid-fuel burner	454,125	June 16	1414			
Beaumann, Hermann, assignor of one-half to R. N. Richmond, Adams, Mass. Float-detecting attachment for loom-shuttles	449,194	Mar. 31	3111	785	54	1745
Beaumont, John W., St. Louis, Mo. Wall for buildings or other structures	466,147	Dec. 29	3445	882	57	1832
Beaumont, John W., St. Louis, Mo. Roofing or sheathing	466,148	Dec. 29	3447	882	57	1832
Beaupre, Bruno, St. Paul, Minn. Journal-bearing	448,196	Mar. 17	1509	385	54	1424
Beauregard, Victor. (See Gooding and Beauregard.)						
Beauregard, Victor, Boston, Mass., assignor to Bryant Sawing Machine Company, of Maine. Sawing-machine	462,073	Oct. 27	2471	613	57	495
Beauregard, Victor, Boston, and C. S. Gooding, Brookline, Mass., assignors to Bryant Sawing Machine Company, of Maine. Circular sawing machine	462,293	Nov. 3	117	29, 30	57	573
Beazley, John, New Barnet, England. Caster	453,956	June 9	1176	307	55	1381
Beazley, Joseph O., Brunswick, Ga. Dust-guard for railway-cars	456,371	July 21	1692	446	56	340
Becannon, Charles W., New York, N. Y. Adjustable book rest or support	446,278	Feb. 10	1287	315	54	766
Becher, James A., Mishawaka, Ind. Drill-chuck	445,533	Feb. 3	6	2	54	512
Beckman, Henry F., assignor to Schmiedewend & Lee Company, Chicago, Ill. Inking device for printing-presses	447,021	Feb. 24	2479	617	54	1020
Bechtel, William H., Canton, Ohio. Permutation-lock	457,885	Aug. 18	1574	409	56	846
Bechtold, William, assignor of one-half to J. B. Perrand, New York, N. Y. Soldering-iron	459,718	Sept. 15	1863	467	56	1441
Beck, Benjamin, Elko, Mo. Ax	464,910	Dec. 8	1382	348	57	1408
Beck, Carl, Chicago, Ill. Luminous sign	452,514	May 19	1739	438	55	918
Beck, Frederick. (See Palmer, James S., assignor.)						
Beck & Hopkins Manufacturing Company. (See Beck, Marshall, assignor.)						
Beck, Hyman, New York, N. Y. Wire-netting	451,315	Apr. 28	2611	644	55	531
Beck, J. Philip. (See Elmer, Martin B., assignor.)						
Beck, Jacob P., assignor of one-half to J. H. Fredericks, Lock Haven, Pa. Saw-set	461,305	Oct. 13	1177	300	57	236
Beck, John A., Pittsburg, Pa. Means for utilizing waste heat from coke-ovens	464,844	Dec. 8	1287	322	57	1390
Beck, Joseph, assignor of two-thirds to S. E. Simon and L. Maybaum, Newark, N. J. Retort for making bisulphide of carbon	464,747	Dec. 8	1149	285	57	1362
Beck, Marshall, assignor to Beck & Hopkins Manufacturing Company, Chicago, Ill. Hay-loader	448,006	Mar. 10	1211	{ 308 309 }	{ 54 57 }	1355 1237
Beck, Matthias A., Milwaukee, Wis. Cable-feed works	457,415	Aug. 11	820	210	56	693
Beck, Paul, Augsburg, Germany. Apparatus for tapping beer by means of carbonic acid	445,257	Jan. 27	2063	532	54	426
Beck, Paul, Augsburg, Germany. Refrigerating-machine	464,348	Dec. 1	540	132	57	1237
Beck, Samuel H., Findlay, assignor of one-half to A. A. Lisman, Dayton, Ohio. Detachable seat for velocipedes	464,448	Dec. 1	675	165	57	1263
Beck, Warren F., Knoxville, Pa. Case for holding tickets	450,925	Apr. 21	1977	485	55	400
Beck, William, Montreal, Canada. Box-fastener	449,811	Apr. 7	256	65	55	51
Beck, William, Montreal, Canada. Box-fastener	461,091	Oct. 13	841	217	57	169
Becker, Francis L., New York, N. Y. Tuning-peg for stringed instruments	464,003	Dec. 1	4	2	57	1137
Becker, Frank J. (See Deutscher and Becker.)						
Becker, George. (See Becker, John and G.)						
Becker, George, New York, N. Y., assignor, by mesne assignments, to Pope Manufacturing Company, Boston, Mass. Type-writing machine	454,837	June 30	2537	653	55	1659
Becker, George, New York, N. Y., assignor, by mesne assignments, to Pope Manufacturing Company, Boston, Mass. Type-writing machine	455,299	July 7	6	2	56	4
Becker, Henry S., assignor of one-half to I. A. Saltsman, Charlottesville, Va. Machine for cutting knit fabrics	464,952	Dec. 15	1458	{ 367 368 }	{ 57 57 }	1434 1434
Becker, Johannes, Altana, Germany. Iron retaining-wall	465,107	Dec. 15	1753	443	57	1488
Becker, John, assignor, by mesne assignments, to Pope Manufacturing Company, Boston, Mass. Type-writing machine	453,166	May 26	2800	702	55	1129
Becker, John, Newton, Mass., and G. Becker, New York, N. Y., assignors, by mesne assignments, to Pope Manufacturing Company, Boston, Mass. Type-writing machine	457,336	Aug. 11	694	177	56	667
Becker, John J., Fort Wayne, Ind. Clothes-drier	445,633	Feb. 3	181	47	54	547
Becker, John P., Detroit, Mich. Key-board playing attachment for musical instruments	449,396	Mar. 31	3466	873	54	1809
Becker, Joseph M., and A. Saggese, New York, N. Y. Book-protector	446,052	Feb. 10	892	216	54	693
Beckers, Mathias, Langerwehe, Germany. Electric boiler-alarm	461,178	Oct. 13	970	249	57	192
Beckford, Edwin S. (See Cram, William E., assignor.)						
Beckner, James, St. Joseph, Mo. Traction-engine	452,592	May 19	1857	{ 467 468 }	{ 55 55 }	941 941
Beckwith, Seth R. (See Cahoon, William, Jr., assignor.)						
Beckwith, Shewman C., New York, N. Y., and W. W. Street, Springfield, Mass., assignors to Matrix Manufacturing Company, New York, N. Y. Alignment-bar for matrix-making machines	455,732	July 14	720	189	56	147
Beckwith, Walter C., Fostoria, Ohio. Railway signal-torch	448,906	Mar. 24	2664	669	54	1650
Beddall, Richard, assignor to F. Barlow, Boston, Mass. Journal-bearing	458,092	Aug. 18	1901	494	56	909
Bedell, James. (See Gorton and Bedell.)						
Bedford, George J., Anamosa, Iowa, assignor to A. R. Lockwood, East Orange, N. J. Lock	459,484	Sept. 15	1482	372	56	1369
Bedlington, Peter R., Bilbao, Spain, assignor to himself, and R. Hammond, London, England. Wear-plate for boots or shoes	464,845	Dec. 8	1287	323	57	1390
Bedson, Joseph P. (See Beresford and Bedson.)						
Beebe, Charles H., Norwich, Conn. Lock-case	446,246	Feb. 10	1237	302	54	757
Beebe, Charles S., Racine, Wis. Vehicle-shafts	458,356	Aug. 25	2341	571	56	998
Beebe, Coldwell C. (See Fish and Beebe.)						
Beebe, George F., Hornellsville, N. Y., assignor to M. Marshall, Washington, D. C. Pump	449,607	Mar. 31	3795	{ 952 953 }	{ 54 54 }	1871 1871
Beebe, Oscar, assignor of one-half to E. F. Willets, Hornellsville, N. Y. Sash-holder	456,078	July 14	1230	323	56	242
Becher, Walter H., Cincinnati, Ohio. Liquid-measuring device for tanks	459,955	Sept. 22	2232	560	56	1518
Beehler, John K., Erie, Ill. Harvester attachment	450,443	Apr. 14	1216	297	55	238
Bechler, William H., Baltimore, Md. Instrument for taking nautical observations	464,261	Dec. 1	407	97, 98	57	1211
Beckman, John C. (See Ebert, William H., assignor.)						
Beekman, John C., New York, N. Y. Double flush-tank for water-closets	452,962	May 26	2457	620	55	1066
Beekman, John C., New York, N. Y. Water-closet bowl	452,963	May 26	2459	621	55	1066
Beekman, John C., New York, N. Y. Syringe	453,332	June 2	221	58	55	1189
Beekman, John C., and H. G. Hubener, New York, N. Y. Float-valve for tanks	449,242	Mar. 31	3178	801	54	1758
Beelman, James F. (See Bodley and Beelman.)						
Beeman, Marcus M., Syracuse, N. Y. Overshoe attachment	448,756	Mar. 24	2438	610	54	1608
Reeman, Marcus M., Syracuse, N. Y. Making velvet binding	455,381	July 7	136	35	56	30

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Beers, Charles L., Scranton, Pa. Grate-support.....	445,873	Feb. 3	591	145	54	628
Beers, Charles L., Scranton, Pa. Cuspidor.....	448,111	Mar. 10	1359	348	54	1385
Beers, Daniel G., Newtown Conn. Vehicle-seat lock.....	452,472	May 19	1681	423	55	907
Beers, John H., Heidelberg, Pa. Coffin-corner.....	461,730	Oct. 20	1928	477	57	382
Beery, Samuel M., assignor of one-half to W. F. Bates and H. E. Keller, Chicago, Ill. Holder for air-brake hose.....	452,334	May 12	1444	357	55	854
Beery, Samuel M., assignor, by mesne assignments, of one-half to Beery Valve Company, Chicago, Ill. Brake.....	453,573	June 2	618	158	55	1264
Beery, Samuel M., assignor of one-half to W. F. Bates and H. E. Keeler, Chicago, Ill. Valve. Beery Valve Company. (See Beery, Samuel M., assignor.)	459,132	Sept. 8	924	222	56	1253
Beesley, John, Coventry, England. Clasp.....	465,012	Dec. 15	1582	403	57	1457
Beezley, Charles F., Chicago, Ill. Assimilating combined type-written and printed work.....	455,467	July 7	265	.....	56	53
Begg, Alexander. (See Durie and Begg.)						
Begg, James W., assignor of one-half to J. White, Chicago, Ill. Glove.....	463,290	Nov. 17	1696	443	57	897
Beggs, Charles S., Ashland, Ill. Grain-meter.....	450,213	Apr. 14	835	210	55	169
Behl, William H., et al. (See Swartz, William P., assignor.)						
Bohlen, Charles A., Cincinnati, Ohio. Vehicle-spring.....	453,924	June 9	1134	296	55	1372
Behm, Adam O., et al. (See Berry, Robert C., assignor.)						
Behr, Claus F. J., Wakefield, Mass. Window screen.....	450,553	Apr. 14	1364	337	55	269
Behr, Hans C., San Francisco, Cal. Instrument for measuring the units of work done by machines.....	466,214	Dec. 29	3541	{ 906 907 }	{ 57 57 }	{ 1850 1850 }
Behrendt, Frank E. (See Samuels and Behrendt.)						
Behrens, Henry R., assignor to A. M. Taft, Worcester, Mass. Leather-stretching machine.....	446,847	Feb. 24	2174	{ 541 542 }	{ 54 54 }	{ 965 965 }
Behrons, William C., New York, N. Y. Type-writer drop-cabinet.....	446,943	Feb. 24	2349	584	54	996
Behringer, Charles, Defiance, Ohio. Tongue-support.....	465,913	Dec. 29	3049	781	57	1755
Behringer, Rudolph J., Denver, Colo. Machine for cooling, scouring, and cleaning malt.....	459,777	Sept. 22	1954	493	56	1465
Behrman, August F., Buena Vista, Colo. Dumping-cart.....	447,442	Mar. 3	290	70, 71	54	1170
Beidler, Herbert A., Chicago, Ill. Device for operating elevator-valves.....	460,934	Oct. 6	617	158	57	120
Beigel, Rudolf, Strasburg, Germany. Mechanical desk or table calendar.....	450,821	Apr. 21	1828	443	55	371
Beiger, Martin V., and A. Eberhart, assignors to Mishawaka Woolen Manufacturing Company, Mishawaka, Ind. Fabric boot.....	452,158	May 12	1153	292	55	799
Beilmann, Friedrich, assignor to R. G. Ledig, Philadelphia, Pa. Adjustable stand for lamps.....	449,028	Mar. 24	2845	723	54	1686
Beirwirth, Henry, Jr., Canton, Ohio. Roofing-tongs.....	460,627	Oct. 6	151	37	57	32
Beisel, Edward A., Port Jervis, N. Y. Sash-fastener.....	454,513	June 23	2008	521	55	1555
Beisheim, Henry, Rochester, N. Y. Valve for steam-pumps.....	451,591	May 5	223	53	55	622
Beisheim, Henry, Jersey City, N. J. Steam-actuated valve.....	459,120	Sept. 8	909	218	56	1249
Beisheim, Henry, Rochester, assignor to New York Steel Mat Company, New York, N. Y. Machine for making mats or gratings.....	448,706	Mar. 24	2351	589	54	1592
Beisheim, Henry, assignor to C. E. Rider, Rochester, N. Y. Block grooving and jointing machine.....	464,191	Dec. 1	281	69, 70	57	1188
Beisheim, Justus, Rochester, N. Y. Grate.....	449,029	Mar. 24	2846	724	54	1687
Bel, John A., Lake Charles, La. Lumber-sorter.....	451,205	Apr. 28	2438	602	55	496
Belden, Frank M., and M. F. Christenson, Akron, Ohio. Hoe.....	464,489	Dec. 8	743	181	57	1265
Belden, Howard R. (See Roberts, William R., assignor.)						
Belden, Thomas S. (See Whittington, Joseph H., Jr., assignor.)						
Belding, Thomas C., assignor to Canton Steel Roofing Company, Canton, Ohio. Tube-making machine.....	445,517	Jan. 27	2427	{ 633 634 }	{ 54 54 }	{ 498 498 }
Belfield, Henry, et al. (See Goehring, John R., assignor.)						
Belfield, T. Broom, et al. (See Goehring, John R., assignor.)						
Bell, Charles E., Nashville, Tenn. Vehicle-wheel.....	463,241	Nov. 17	1623	423	57	883
Bell, Charles R. E., London, England. Match-machine.....	447,931	Mar. 10	1083	{ 271 272 273 }	{ 54 54 54 }	{ 1310 1310 1310 }
Bell, Charles W., Tecumseh, Mich. Garment-stay.....	444,809	Jan. 20	1299	337	54	271
Bell, Enos T., assignor of one-half to J. F. Hatfield, Dublin, Ind. Flue-cleaner.....	459,346	Sept. 8	1256	309	56	1317
Bell, George, assignor of two-thirds to J. Darrall and W. Reese, Mansfield, Pa. Car-coupling.....	454,417	June 16	1864	487	55	1519
Bell, Gilbert S., Mobile, Ala. Steam-valve.....	448,626	Mar. 24	2229	559	54	1568
Bell, James M., Millerstown, Pa. Liquid-tester.....	455,733	July 14	721	190	56	148
Bell, John H., Sunderland, England. Stanchion for ships.....	449,994	Apr. 7	521	130	55	101
Bell, John W., Mercer, Pa. Eaves-trough hanger.....	453,708	June 9	843	218	55	1315
Bell, Louis, and F. H. Root, Chicago, Ill. Vapor-tension controller.....	455,382	July 7	137	35	56	30
Bell, Lowthian, Northallerton, England. Brine-evaporating apparatus.....	459,475	Sept. 15	1467	369	56	1366
Bell, Newton M., San Francisco, Cal. Manufacturing borax.....	449,064	Mar. 24	2899	736	54	1697
Bell, Ollie E., Derby, Kans. Churn.....	452,251	May 12	1306	327	55	830
Bell, Thomas H., Brampton, Canada. Combined paper-cutter, pencil-sharpener, and eraser.....	459,191	Sept. 8	1016	248	56	1269
Bell, William H., New York, N. Y. Latch.....	452,657	May 19	1960	492	55	961
Bell, William H., assignor, by mesne assignments, of one-half to G. L. Clark, Washington, D. C. Clasp for files or wrappers.....	460,066	Sept. 22	2395	600	56	1549
Bell, William J., Philadelphia, Pa. Manufacturing steel.....	465,314	Dec. 15	2081	.....	57	1550
Bellamy, Charles L., Arlington, N. J. Dust-pan.....	446,225	Feb. 10	1179	288	54	745
Bellamy, Charles L., Arlington, N. J. Carriage-jack.....	451,666	May 5	375	92	55	650
Bellamy, Leon, Arlington, N. J. Fountain.....	463,616	Nov. 24	2237	590	57	1009
Bellamy, William H. (See Atkinson, Francis F., assignor.)						
Bellasia, George M., Lakefield, Canada. Liquid-measuring device.....	460,423	Sept. 29	2943	736	56	1661
Bellinger, Jacob B. (See Barker, Jere J., assignor.)						
Bellinger, John N., Ada, Ark. Plow-fender.....	458,214	Aug. 25	2089	541	56	951
Bellis, David C., Philadelphia, Pa. Stop-motion for knitting-machines.....	455,786	July 14	797	209	56	1162
Bellows, Stephen H., Athol, Mass. Micrometer-gage.....	456,875	July 28	2540	666	56	507
Beltz, Frederick, trustee. (See Manwaring and Vanderhoof, assignors.)						
Bement, Clarence E., Lansing, Mich. Cultivator.....	462,294	Nov. 3	119	30	57	574
Bement, John W. (See Sterick, Charles W., assignor.)						
Bement, William O. (See Parmelee and Bement.)						
Bemis, Bertie G., and O. D. Cummings, Charlestown, N. H. Ladder.....	452,826	May 26	2228	559	55	1022
Bemis, Edwin L. (See Elliott and Bemis.)						
Bemis, Sumner A. (See Pfingst and Bemis.)						
Benary, Robert H. (See Barratt, John, assignor.)						
Bénazet, Jean, Rheims, France. Heddle for looms.....	462,854	Nov. 10	1012	261	57	756
Benbow, Charles A., and A. R. Moseley, La Crosse, Kans. Lamp-chimney lifter.....	464,911	Dec. 8	1383	348	57	1408
Bender, Frederick W., Narbeth Park, and F. Scheidemann, Philadelphia, Pa. Cuff-retainer.....	444,271	Jan. 6	463	118	54	92
Bender, Fritz, assignor to A. Leonhardt & Co., Mühlheim, Germany. Pink dye.....	445,684	Feb. 3	2-1	54	568

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Bender, Horace G., assignor of one-half to J. Grether, Akron, Ohio. Printing-machine. (Reissue).....	11,193	Sept. 22	2453	613	56	1561
Bender, John O., Fayetteville, N. Y. Transplanter.....	461,519	Oct. 20	1600	391	57	321
Bender, John T., Canton, Ohio. Plow-jointer.....	445,281	Jan. 27	2090	539	54	432
Bender, John T., Canton, Ohio. Plow-wheel.....	445,282	Jan. 27	2091	540	54	432
Bender, Joseph T., et al. (See Polley, William, assignor.)						
Benedict, Cumberland C., Alma Centre, Wis. Buckle.....	461,009	Oct. 13	724	186	57	148
Benedict, Edgar H., and F. G. Bates, Philadelphia, Pa. Artificial stone, cement, and plastering composition.....	460,105	Sept. 29	2460	.....	56	1569
Benedict, Edgar H., assignor of one-half to F. G. Bates, Philadelphia, Pa. Plastering compound.....	460,520	Sept. 29	3108	.....	56	1694
Benedict, Irving W., Gloversville, N. Y. Stallion-shield.....	448,757	Mar. 24	2439	610	54	1608
Benedict, Jacob, Grand Rapids, Mich. Furniture-clamp.....	462,888	Nov. 10	1065	276	57	766
Benedict, James F., et al. (See Frazer, Thornton A., assignor.)						
Benedict, Milton E. (See Merrell, Daniel B., assignor.)						
Benefield, Ephraim R., Stafford, Kans. Permutation-padlock.....	465,315	Dec. 15	2082	532	57	1550
Benefield, Harry A., Jefferson, assignor of two-thirds to A. E. Martin, Cason, and L. V. Peterson, Lebanon, Ind. Farm-gate.....	451,886	May 5	667	169	55	705
Benfield, Joseph, Walsall, England. Horseshoe.....	463,474	Nov. 17	1995	522	57	954
Benford, William H., assignor of one-third to H. M. Peebles, Dublin, Mo. Wagon-tongue.....	459,356	Sept. 8	1271	313	56	1320
Benger, Gottlieb, Stuttgart, Germany. Shirt.....	446,812	Mar. 24	2519	631	54	1023
Benham, Elijah B., Providence, R. I. Multiple-cylinder motor.....	459,736	Sept. 22	1898	{ 478 479 }	{ 56 57 }	{ 1454 1454 }
Benham, Elijah B., assignor to W. G. Nightingale, Providence, R. I. Steam-engine.....	459,735	Sept. 22	1894	{ 477 478 }	{ 56 57 }	{ 1454 1454 }
Benicia Agricultural Works. (See Darling, Naaman L., assignor.)						
Benicia Agricultural Works. (See Duval, George R., assignor.)						
Benicia Agricultural Works. (See Paterson, James and W., assignors.)						
Benjamin, Dana H. (See Hurlburt and Benjamin.)						
Benjamin, Frank P., New York, N. Y. Signaling system.....	461,809	Oct. 27	2066	{ 509 510 }	{ 57 57 }	{ 417 417 }
Benjamin, Frank P., New York, N. Y. Signaling system.....	461,810	Oct. 27	2068	{ 510 511 }	{ 57 57 }	{ 418 418 }
Benjamin, Fredrick L., St. Paul, Minn. Car-coupling.....	451,018	Apr. 28	2142	530	55	439
Benjamin, George B., Danbury, Conn. Car-coupling.....	452,658	May 19	1962	492	55	961
Benjamin, George T. (See Tinker and Benjamin.)						
Benjamin, George T., J. E. Tinker, and W. C. Rosenberger, Chattanooga, Tenn. Crate.....	452,827	May 26	2230	560	55	1023
Benjamin, George V., Ithaca, N. Y. Telephonic auditory apparatus.....	448,627	Mar. 24	2230	559	54	1568
Benjamin, Marcens, assignor of one-half to J. Hardy, Sydney, New South Wales. Watch.....	458,745	Sept. 1	297	72, 73	56	1122
Benn, John S., San Francisco, Cal. Fly-book.....	444,272	Jan. 6	464	118	54	92
Benn, Samuel, Atwood, Ill. Portable fence.....	464,549	Dec. 8	834	206	57	1303
Benner, William, Tiffin, Ohio. Heating and ventilating the walls of buildings.....	446,848	Feb. 24	2178	542	54	966
Benners, Edwin H., Elizabeth, N. J. Grease-cup.....	448,471	Mar. 17	1969	495	54	1511
Bennett, Benjamin F., Lockport, N. Y. Wrench.....	450,707	Apr. 21	1649	396	55	337
Bennett, Benjamin F., Lockport, N. Y. Concealed hinge-butt.....	465,445	Dec. 22	2296	589	57	1601
Bennett Brothers. (See Melendy, George H., assignor.)						
Bennett, Edwin, Baltimore, Md. Roofing-tile.....	449,397	Mar. 31	3468	874	54	1809
Bennett, Edwin C., and E. C. Freeze, Chicago, Ill. Universal joint for incandescent-lamp brackets.....	447,486	Mar. 3	369	91	54	1188
Bennett, Edwin H., Jr. (See Diehl and Bennett.)						
Bennett, Erastus S., Denver, Colo. Separator.....	448,189	Mar. 10	1482	378	54	1409
Bennett, Erastus S., Denver, Colo., and H. F. Parshall, Baltimore, Md. Electro-magnetic clutch.....	454,832	June 23	2526	650	55	1649
Bennett, Frank C. (See Bennett, Oliver H. and F. C.)						
Bennett, Frederick, New York, N. Y., assignor, by mesne assignments, to Hale & Kilburn Manufacturing Company, Philadelphia, Pa. Folding bed. (Reissue).....	11,137	Jan. 6	678	176	54	133
Bennett, Garfield G. (See Kennedy and Bennett.)						
Bennett, George H., assignor of one-half to F. M. Dillie, Cincinnati, Ohio. Lathe.....	449,065	Mar. 24	2901	736	54	1697
Bennett, Harry T. (See Wagner and Bennett.)						
Bennett, Henry B. (See Jordan, Linwood F., assignor.)						
Bennett, J. C., et al. (See Kimpton, Charles A., assignor.)						
Bennett, Joseph B., Watertown, assignor, by mesne assignments, to Berlin Machine Works, Beloit, Wis. Polishing-machine.....	452,632	May 19	1923	483	55	954
Bennett, Joseph H., St. Joseph, Mo. Adjustable hearth.....	454,703	June 23	2318	596	55	1612
Bennett, Josiah C., assignor of one-half to F. L. White, Lynn, and C. A. Kimpton, Malden, Mass. Ventilating system for buildings.....	453,827	June 9	1011	{ 263 264 }	{ 55 55 }	{ 1348 1348 }
Bennett, Levi W. (See Williams and Bennett.)						
Bennett, Moses H. (See Prescott and Bennett.)						
Bennett, Oliver H. and F. C., assignors of one-third to J. S. Watson, Jamestown, N. D. Automatic cartridge-loader.....	458,557	Sept. 1	4	2, 3	56	1066
Bennett, Telemichus N., et al. (See Portis, Silas, assignor.)						
Bennett, Walter E., assignor to Morley Button Sewing Machine Company, Boston, Mass. Securing shank-buttons to materials.....	456,926	July 28	2629	689	56	524
Bennett, Walter E., assignor to Morley Button Sewing Machine Company, Boston, Mass. Machine for sewing on buttons.....	465,333	Dec. 15	2111	{ 538 539 540 }	{ 57 57 57 }	{ 1555 1555 1555 }
Bennett, Walter E., assignor to Morley Button Sewing Machine Company, Boston, Mass. Machine for sewing on buttons.....	465,334	Dec. 15	2117	{ 541 542 543 }	{ 57 57 57 }	{ 1556 1556 1556 }
Bennett, William F., Peoria, Ill. Dumping-car.....	449,030	Mar. 24	2848	724	54	1687
Bennett, William H., Chicago, Ill. Clamping attachment for tenoning-machines.....	462,526	Nov. 3	478	116	57	642
Bonney, John H., Evansville, Wis. Dinner-pail.....	453,957	June 9	1177	307	55	1381
Bennington, William J., Roxton, Tex. Washing-machine.....	449,995	Apr. 7	522	130	55	101
Benno, Joseph, Philadelphia, Pa. Circular-knitting machine.....	456,372	July 21	1693	{ 447 448 449 450 451 452 }	{ 56 56 56 56 56 56 }	{ 341 341 341 341 341 341 }
Benoit, Alphonse V., Brooklyn, N. Y. Ink or color holder.....	445,764	Feb. 3	414	103	54	594
Benoit, Charles H., and A. Pilot, San José, Cal. Window-screen.....	447,423	Mar. 3	244	62	54	1163
Benson, James, Wanaaring, New South Wales. Crank-arm.....	464,416	Dec. 1	633	156	57	1254
Benson, John Z., Lawn Hill, Iowa. Corn-crib.....	458,936	Sept. 1	607	149	56	1183
Benson, Joseph R., Junction City, Tex. Gate.....	453,958	June 9	1178	308	55	1381

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Benson, Lee, Milwaukee, Wis. Device for locking up type in galleys or chases.....	465,316	Dec. 15	2084	532	57	1550
Benson, Nils P., Denver, Colo. Extensible rocking board.....	451,994	May 12	853	218	55	748
Benson, Samuel, assignor of one-half to J. M. Montgomery, Butte City, Mont. Pneumatic tube and motor.....	450,958	Apr. 21	2036	502 503 504	55	410
Benson, Samuel H., San Francisco, Cal. Steam-boiler.....	457,103	Aug. 4	264	69	56	584
Benson, Sivert, Spring Valley, Minn. Shoe-maker's tool.....	451,019	Apr. 28	2143	530	55	439
Benson, Swan T. (See Rowen, Nelson, assignor.)						
Benstead, Thomas. (See Fowler, Benstead, and Ogloby.)						
Benster, Olin W., Toledo, Ohio. Wind-engine.....	463,092	Nov. 10	1378	356	57	827
Bent, Elmer M., Cohasset, Mass. Machine for thickening sole-edges.....	452,988	May 26	2500	633	55	1074
Bent, George W. (See Rimmer, Joseph, assignor.)						
Bentley, Albert F., Fall River, Mass. Ring-rail for spinning and twisting machines.....	460,247	Sept. 29	2672	666	56	1610
Bentley, Alfred. (See Bentley, Squire and A.)						
Bentley, Edward M., New York, N. Y. Electric agricultural system.....	444,265	Jan. 6	454	114 115	54	89
Bentley, Edward M., New York, N. Y. Electric-railway car.....	444,480	Jan. 13	782	204	54	164
Bentley, Edward M., New York, N. Y. Contact device for electric railways.....	445,634	Feb. 3	181	47	54	547
Bentley, Edward M., New York, N. Y. Electric railway and contact device therefor.....	446,376	Feb. 10	1432	351 352	54	796
Bentley, Edward M., New York, N. Y. Conduit electric railway.....	446,417	Feb. 17	1512	372	54	824
Bentley, Edward M., New York, N. Y. Electric railway.....	449,792	Apr. 7	234	50, 60	55	47
Bentley, Edward M., New York, N. Y. Electric-railway car.....	454,020	June 16	1270	330	55	1405
Bentley, Edward M., New York, N. Y. Electric-motor car.....	454,021	June 16	1271	330	55	1406
Bentley, Edward M., New York, N. Y. Conduit for electric railways.....	454,022	June 16	1272	330	55	1406
Bentley, Edward M., New York, N. Y. Electric-railway-conductor support.....	459,737	Sept. 22	1901	479 480	56	1455
Bentley, Edward M., New York, N. Y. Electric railway.....	462,231	Nov. 3	10	2	57	554
Bentley, Edward M., Brooklyn, N. Y. Electric car-controlling device.....	444,479	Jan. 13	780	203	54	163
Bentley, Edward M., Brooklyn, N. Y. Electric railway.....	444,740	Jan. 13	1196	310	54	242
Bentley, Edward M., Brooklyn, N. Y. Contact-plow for electric cars.....	461,548	Oct. 20	1641	401	57	329
Bentley, Edward M., Boston, Mass. Electric-line switch.....	446,418	Feb. 17	1513	373	54	825
Bentley, Edward M., Boston, Mass. Electric-railway conduit.....	446,419	Feb. 17	1514	373	54	825
Bentley, Edward M., Boston, Mass. Contact device for electric railways.....	446,420	Feb. 17	1515	373	54	825
Bentley, Edward M., Boston, Mass. Electro-motive-force regulator.....	456,612	July 28	2009	555	56	425
Bentley, Frank F., Niles, Ohio. Roof-creeper.....	451,150	Apr. 28	2336	580	55	478
Bentley, George, et al. (See Macnarey, John, assignor.)						
Bentley, John T., St. Louis, Mo. Combined dresser and writing-desk.....	446,606	Feb. 17	1792	443	54	880
Bentley, Squire and A., assignors of one-third to R. Carroll, Paterson, N. J. Tension-regulating device for loom-shuttles.....	447,629	Mar. 3	583	144 145	54	1227
Bentley, William, Lethbridge, Canada. Car-coupling.....	454,704	June 23	2319	596 597	55	1612
Bentley, William, Lethbridge, Canada. Car-coupling.....	460,841	Oct. 6	470	119 120	57	93
Benton, George E., Monroe, N. Y. Scaffold-bracket.....	457,949	Aug. 18	1684	442	56	867
Bertz, M. S. (See Hillabold, Charles D., assignor.)						
Berubecker, Julius, New York, N. Y. Making furniture-nails.....	457,597	Aug. 11	1105	282	56	747
Bérand, Georges H., Maastricht, Holland. Apparatus for classifying and finishing peat fiber.....	444,109	Jan. 6	360	89, 90	54	72
Bercher, Leopold, Fort Smith, Ark. Fan attachment for sewing-machines.....	445,843	Feb. 10	548	133	54	618
Beridian, Richard J., Paterson, N. J. Shutter-fastener.....	445,968	Feb. 10	742	182	54	667
Beresford, James, Charlton-cum-Hardy, near Manchester, England. Material for making wire fences.....	449,279	Mar. 31	3242	821	54	1769
Beresford, James, Chorlton-cum-Hardy, and J. P. Bedson, assignors to J. T. and H. A. Johnson, Manchester, England. Reel for barbed wire.....	453,139	May 26	2743	691 692	55	1121
Berg, John, Morgan Park, Ill. Fire-escape.....	456,132	July 21	1306	344	56	267
Bergen, James V., Austin, Tex. Fountain attachment for inkstands.....	446,279	Feb. 10	1288	315	54	767
Berger, Ambrose B. (See Skirving and Berger.)						
Berger, Henry A., Brooklyn, N. Y. Necktie-fastener.....	450,881	Apr. 21	1923	472	55	388
Berger, Henry L., and E. Noël, Abbeville, La. Centrifugal governor.....	459,988	Sept. 22	2276	571	56	1526
Berger, Louis H., et al. (See Dougherty, George C., assignor.)						
Berger, Otto, and H. Eldridge, Galveston, Tex. Show-globe.....	465,516	Dec. 22	2418	617	57	1624
Berger, William H., Wyncote, Pa. Stove-pipe damper.....	464,846	Dec. 8	1289	323	57	1391
Bergeron, Jasmin P. (See Morgeneier and Bergeron.)						
Bergman, Claes. (See Bissell and Bergman.)						
Bergman, Edward F. (See Lindstrom and Bergman.)						
Bergman, Peter, Stromsburg, Nebr. Vaneless wind-engine.....	463,025	Nov. 10	1273	330	57	807
Bergmann Manufacturing Company. (See Bergmann, Sigmund, assignor.)						
Bergmann, Sigmund. (See Scott, George A., assignor.)						
Bergmann, Sigmund, New York, N. Y. Cut-out.....	445,362	Jan. 27	2205	572	54	456
Bergmann, Sigmund, New York, N. Y. Electric cut-out.....	445,363	Jan. 27	2206	573	54	457
Bergmann, Sigmund, New York, N. Y. Key for electric cut-outs.....	445,364	Jan. 27	2207	572	54	457
Bergmann, Sigmund, New York, N. Y. Electric-cable connector.....	445,365	Jan. 27	2208	572	54	457
Bergmann, Sigmund, New York, N. Y. Conduit for electric wiring in buildings.....	447,861	Mar. 10	966	242	54	1308
Bergmann, Sigmund, assignor to Bergmann Manufacturing Company, New York, N. Y. Switch.....	457,572	Aug. 11	1065	272	56	741
Bergmann, Sigmund, assignor to Bergmann Manufacturing Company, New York, N. Y. Means for suspending and controlling electric lamps.....	457,573	Aug. 11	1067	272	56	741
Bergmann, Sigmund, assignor to Bergmann Manufacturing Company, New York, N. Y. Automatic electric switch.....	461,791	Oct. 20	2032	501	57	402
Bergmann, Sigmund, and C. J. Klein, New York, N. Y.; said Klein assignor to said Bergmann. Insulating coupling-block and cut-out.....	446,180	Feb. 10	1109	271	54	732
Bergmann, Theodor, Gaggenau, Germany, assignor to J. H. Volkmann, New York, N. Y. Vending apparatus.....	447,862	Mar. 10	968	243	54	1308
Bergmark, Leo, Philadelphia, Pa. Railway rail and sleeper or stringer.....	448,628	Mar. 24	2231	560	51	1568
Berio, Omer A., Sturgis, Ky. Corn-planter.....	459,671	Sept. 15	1792	451	56	1427
Berkey, Julius, Grand Rapids, Mich. Brace or stay for furniture.....	454,705	June 23	2322	597	55	1613
Berlopsch, Henry J., assignor to E. C. Ostby and N. B. Barton, Providence, R. I. Finger-ring.....	466,287	Dec. 29	3661	936	57	1872
Berlin Machine Works. (See Bennett, Joseph B., assignor.)						
Berlin Machine Works. (See Carpenter, James E., assignor.)						
Berlin Machine Works. (See Perry, James L., assignor.)						
Berliner, Emil, Washington, D. C., assignor to American Bell Telephone Company, Boston, Mass. Combined telegraph and telephone.....	463,569	Nov. 17	2143	566	57	983

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Berlinor Maschinenbau Actien-Gesellschaft, vormal's L. Schwartzkopff. (See Gramm, Carl, assignor.)						
Berliner Musik Instrumenten Fabrik, Aktien Gesellschaft, vormal's Chas. F. Pietschmann & Söhne. (See Pietschmann, Carl, assignor.)						
Berlis, William H., Erie, Pa. Clothes-wringer	465,553	Dec. 22	2488	635	57	1637
Bernard, Peter J., Union Hall, Va. Tobacco-knife	449,031	Mar. 24	2849	724	54	1687
Bernard, Philip, Sioux City, Iowa. Hay-stacker	455,936	July 14	1026	268	56	204
Bernard, William A., New York, N. Y. Vise	454,542	June 23	2055	532	55	1563
Bernauer, Ivo, Chicago, Ill. Safety-line	465,446	Dec. 22	2298	590	57	1601
Berne, Arthur W., assignor of five-eighths to B. W. Taylor, C. A. Fish, and R. J. Lowden, New Orleans, La. Tail light for railway-trains	448,315	Mar. 17	1723	436	54	1465
Berner, Frederick, Jr., assignor to Art Embossing Machine Company, Indianapolis, Ind. Embossing-machine	456,079	July 14	1231	323	56	242
Berner, Fredrich, Jr., assignor to Art Embossing Machine Company, Indianapolis, Ind. Embossing-machine. (Reissue)	11,208	Dec. 8	1447	363	57	1423
Berner, John, Philadelphia, Pa. Ratchet-wrench	455,300	July 7	8	2	56	4
Berner, Otto J. R., Lancaster, Pa. Making combined smooth-surface paintings and relief pictures	449,727	Apr. 7	130	33	55	27
Bernhard, Carl, Potsdam, Germany. Saddle	450,779	Jan. 21	1751	425	55	357
Bernhard, Louis, Bloomburg, Pa. Fountain-pen	444,985	Apr. 20	1632	419	54	334
Bernhardt, George, deceased, Radcliffe, England, J. C. Edwards, administrator. Support for spinning-spindles	461,591	Oct. 20	1709	418	57	341
Bernhardt, Herman V., Brooklyn, N. Y. Micrometer sheet-metal gage	459,672	Sept. 15	1793	451	56	1428
Bernheim, Joseph, et al. (See Bonnet, Jean M. G., assignor.)						
Berninghaus, Eugene, Cincinnati, Ohio. Shaving-cup	453,538	June 2	564	144	55	1254
Bernstein, Adolph, New York, N. Y. Suspender-clasp	456,465	July 21	1855	490	56	370
Bernstein, Benny, New York, N. Y. Corset-fastening	451,020	Apr. 28	2144	530	55	439
Bernström, John. (See Sonden, Klas G. A., assignor.)						
Berrenberg, Adolph. (See Nickerson and Berrenberg.)						
Berrenberg, Adolph, Somerville, Mass., assignor to Beacon Vacuum Pump and Electrical Company, Portland, Me. Vacuum-pump connection	447,275	Feb. 24	2931	728	54	1108
Berrenberg, Adolph, Somerville, and W. E. Nickerson, Cambridge, Mass., assignors to Beacon Vacuum Pump and Electrical Company, Portland, Me. Vacuum-pump	447,273	Feb. 24	2929	728	54	1107
Berrenberg, Adolph, Somerville, and W. E. Nickerson, Cambridge, Mass., assignors to Beacon Vacuum Pump and Electrical Company, Portland, Me. Vacuum-pump	447,274	Feb. 24	2930	728	54	1107
Berrenberg, Albert, Boston, Mass., assignor, by mesne assignments, to Berrenberg Manufacturing Company, of New York. Vacuum-pump	449,066	Mar. 21	2902	736	54	1697
Berrenberg Manufacturing Company. (See Berrenberg, Albert, assignor.)						
Berridge, Daniel, Leadville, Colo. Pump	453,925	June 9	1135	297	55	1372
Berrigan, John J., Avon, N. Y. Separating cream from milk	463,731	Nov. 24	2421	634	57	1943
Berry, Albert W. (See Rankin, David, assignor.)						
Berry, Alonzo S., Ann Arbor, Mich. Saw-filing vise	456,373	July 21	1709	452	56	343
Berry, Charles A., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	460,498	Sept. 29	3063	769	56	1683
Berry, Charles A., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	461,780	Oct. 20	2016	497	57	399
Berry, Ellen A., assignor of one-half to S. W. McDaniel, Boston, Mass. Jacket for making garment-patterns	447,554	Mar. 3	469	115	54	1206
Berry, George, Baltimore, Md. Speed-measure	449,398	Mar. 31	3469	874	54	1809
Berry, Henry, assignor to Derby Silver Company, Shelton, Conn. Brush	462,790	Nov. 10	901	235	57	733
Berry, Henry, assignor to Derby Silver Company, Shelton, Conn. Mirror	464,004	Dec. 1	5	2	57	1138
Berry, Hiram N., assignor of one-half to M. F. Berry, Meridian, Miss. Planing and sizing machine	452,659	May 19	1963	492	55	961
Berry, Jacob D., Camden, N. J. Fire-extinguisher	449,195	Mar. 31	3113	785	54	1745
Berry, Lucien H., and L. O. Orton, Philadelphia, Pa. Machine for mortising wood	453,539	June 2	565	144	55	1254
Berry, Marcellus F., and N. Stafford, Brooklyn, N. Y. Rein-button	444,874	Jan. 20	1442	375	54	298
Berry, Micajah F. (See Berry, Hiram N., assignor.)						
Berry, Richard D., assignor of one-half to S. R. Berry, Auburn, Ark. Seeding-machine	454,418	June 16	1865	487	55	1519
Berry, Robert C., assignor of three-fourths to A. O. Behm, P. A. Byers, and H. W. Comstock, La Fayette, Ind. Angle-engine	453,852	June 9	1036	271	55	1353
Berry, Samuel F., assignor of one-half to W. H. Atwill, Toledo, Ohio. Lock-snap hook	462,465	Nov. 3	394	96	57	625
Berry, Selby C., Williamstown, V. Va. Globe-valve	457,629	Aug. 11	1150	294	56	756
Berry, Sidney R. (See Berry, Richard D., assignor.)						
Berry, Washington, Angel Island, Cal. Sash-balance	456,715	July 28	2262	599	56	458
Berry, Washington, Angel Island, Cal. Sash-balance	456,716	July 28	2264	599	56	458
Berry, William H., Eddystone, assignor of one-half to E. K. Nelson, Chester, Pa. Ink-stand	452,252	May 12	1308	327	55	830
Bertenshaw, Silas, Black Hawk, Colo. Concentrator	445,154	Jan. 27	1899	490	51	395
Berthon, Louis A., Paris, France, assignor to Société Générale des Téléphones, (Réseaux Téléphoniques et Constructions Électriques.) Spring-jack commutator for telephone switch-boards	458,258	Aug. 25	2165	531	56	966
Bertling, Herman J. C., F. W. Wockenfuss, and W. Meyer, Baltimore, Md. Varnish	451,705	May 5	399		55	655
Bertollet, Wellington. (See Gerber, Mahlon A., assignor.)						
Bertollette, Daniel A., Norristown, Pa. Electric-wire insulator	450,384	Apr. 14	1126	276	55	222
Bertrand, Joseph E., Boston, assignor of one-half to M. Bray, Newton, Mass. Puncturing implement for sewing-machines	444,419	Jan. 13	692	180	54	145
Bertrand, Joseph E., Boston, assignor of one-half to M. Bray, Newton, Mass. Shuttle for sewing-machines	445,655	Feb. 3	224	61	54	556
Bertrand, Joseph E., Boston, assignor of one-half to M. Bray, Newton, Mass. Shuttle for sewing-machines	445,656	Feb. 3	226	61	54	556
Bertrand, Joseph E., Boston, assignor of one-half to M. Bray, Newton, Mass. Thread-waxing device for sewing-machines	445,657	Feb. 3	227	61	54	556
Bertrand, Joseph E., Boston, assignor of one-half to M. Bray, Newton, Mass. Thread-controlling mechanism for sewing-machines	452,159	May 12	1154	292	55	799
Bertsche, Leopold, and A. Ortnor, Pittsburg, Pa. Fender for cars	463,438	Nov. 17	1943	507	57	944
Bescher, Henry, Jr., Brooklyn, N. Y. Piano-action	466,149	Dec. 29	3448	882	57	1832
Beseler, Charles, Jersey City, N. J. Light-casing for stereopticons	466,150	Dec. 29	3449	882	57	1833
Besly, Charles H. (See Gardner, Frederick N., assignor.)						
Besse, Thomas H., Buffalo, N. Y. Ice-cream freezer	449,434	Mar. 31	3533	890	54	1822
Besse, Thomas H., Buffalo, N. Y. Ice-cream freezer	464,169	Dec. 1	244	60	57	1182
Besser, Wilhelm, Rauscha, Germany. Sawing-machine	457,807	Aug. 18	1439	373	56	821

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Besson, Fontaine, London, England. Valved musical instrument.....	457,337	Aug. 11	696	{ 178 179 }	56	668
Bessonette, William T., and C. R. King, assignors of one-half to J. M. Brosius, Atlanta, Ga. Ice-cream freezer.....	444,790	Jan. 13	1265	328	54	255
Best, Edward, Carleton Place, Canada. Car-axle lubricator.....	457,023	Aug. 4	137	34	56	560
Best, George B., <i>et al.</i> (See Reed, Franklin M., assignor.)						
Best, Isaiiah, Mount Pleasant, and J. J. Sadler, Toronto, Canada; said Best assignor to said Sadler. Shaft-loop.....	465,774	Dec. 22	2818	722	57	1701
Besthoff, Samuel J., <i>et al.</i> (See Nicolaus, August, assignor.)						
Besthoff, Samuel J., assignor of two-thirds to H. Kahn and A. Nicolaus, New York, N. Y. Cash-carrier.....	456,394	July 21	1735	458	56	348
Betham, William R., Chicago, Ill. Weather-strip for freight-car doors.....	449,399	Mar. 31	3471	874	54	1809
Bethel Electric Medical Baths Company. (See Bethel, George H., assignor.)						
Bethel, George H., Sydney, New South Wales, assignor to Bethel Electric Medical Baths Company, Limited, Melbourne, Victoria. Apparatus for administering electricity.....	455,981	July 14	1093	287	56	216
Bettendorf, Joseph W. (See Bettendorf, William P. and J. W.)						
Bettendorf, William P. (See French and Bettendorf)						
Bettendorf, William P., Davenport, Iowa. Metallic wheel.....	458,411	Aug. 25	2434	592	56	1015
Bettendorf, William P., Davenport, Iowa. Metallic wheel.....	458,412	Aug. 25	2435	592	56	1015
Bettendorf, William P., Davenport, Iowa. Harrow.....	458,820	Sept. 1	421	100	56	1146
Bettendorf, William P., Davenport, Iowa. Cultivator.....	466,215	Dec. 29	3545	907	57	1850
Bettendorf, William P., Davenport, Iowa. Cultivator.....	466,216	Dec. 29	3546	907	57	1851
Bettendorf, William P., Davenport, Iowa. Cultivator.....	466,217	Dec. 29	3548	908	57	1851
Bettendorf, William P. and J. W., Davenport, Iowa. Machine for die-rolling metals.....	445,874	Feb. 3	593	145	54	628
Bettendorf, William P. and J. W., Davenport, Iowa. Metallic wheel.....	458,410	Aug. 25	2433	592	56	1015
Betterman, Henry C. (See Everest, Lahan J., assignor.)						
Bettis, Horace I. (See Ulven, Alfred W., assignor.)						
Bettney, James, Nottingham, England. Thickening mechanism for circular-knitting machines.....	451,747	May 5	469	116	55	667
Betts, C. W., <i>et al.</i> (See Scott, James, assignor.)						
Betts, Charles D., assignor of two-thirds to L. Betts and W. H. Pickett, Warren, Pa. Apparatus for burning natural gas.....	457,245	Aug. 4	495	131	56	626
Betts, Charles L., New York, assignor to Steam Gauge and Lantern Company, Syracuse, and R. E. Dietz Company, New York, N. Y. Wire frame.....	445,155	Jan. 27	1902	491	54	396
Betts, Charles L., Brooklyn, assignor to R. E. Dietz Company, of New York, and Steam Gauge and Lantern Company, Syracuse, N. Y. Tubular lantern and lamp.....	451,551	May 5	159	39	55	610
Betts, Lewis, <i>et al.</i> (See Betts, Charles D., assignor.)						
Betts, Lewis F., New York, N. Y. Tubular lantern.....	450,444	Apr. 14	1217	297	55	238
Betts, William M., San Francisco, Cal. Auxiliary safety-spring.....	459,886	Sept. 22	2136	537	56	1501
Beuckmann, Henry G., Youngstown, Ohio. Weighing-beam.....	454,394	June 16	1817	475	55	1510
Beugler, Edwin F., Buffalo, N. Y. Boring-tool.....	451,448	May 5	4	1	55	579
Beugler, Edwin F., Buffalo, N. Y., assignor of one-half to E. T. Ward, Sheldonville, Mass. Expanding boring-tool.....	462,789	Nov. 10	900	235	57	733
Beutel, Jacob, assignor of one-half to R. Schroeder, New York, N. Y. Confectioner's dropping-machine.....	456,530	July 21	1960	516	56	390
Beutelspacher, Henry, Bridgeport, Conn. Hand-rubber.....	448,197	Mar. 17	1510	385	54	1424
Beutelspacher, Henry, assignor of one-half to R. Weber, Bridgeport, Conn. Soldering-tool.....	450,093	Apr. 7	653	164	55	128
Bever, John B., <i>et al.</i> (See Ford, Frederick D., assignor.)						
Beveridge, Thomas. (See Hilton, John, assignor.)						
Bevil, John R., Village Mills, Tex. Animal-tread.....	454,200	June 16	1531	{ 402 403 }	55	1456
Bevin, George, East Hampton, Conn. Bell or gong.....	453,709	June 9	844	218	55	1315
Bevin, William D., Syracuse, N. Y. Index for letter or account books.....	464,417	Dec. 1	634	156	57	1255
Bevington, James H., Peoria, Ill., assignor to Peoria Metal Spinning Company, of Illinois. Spinning tubes.....	444,721	Jan. 13	1148	{ 295 296 }	54	234
Bevington, James H., assignor to New Process Welding and Spinning Company, Chicago, Ill. Mode of welding the ends of wire, rods, &c.....	463,134	Nov. 17	1456	378	57	851
Bevington, James H., assignor to New Process Welding and Spinning Company, Chicago, Ill. Making tubes.....	463,617	Nov. 24	2237	590	57	1009
Bevis, William H. (See Foster and Bevis.)						
Bew, Charles, Angola, Ind. Drink-mixer.....	447,654	Mar. 3	615	152	54	1234
Bew, Charles, Angola, Ind. Ice-plane.....	447,655	Mar. 3	616	152	54	1234
Beyer, George W., Brooklyn, assignor to H. W. Harris, New York, N. Y. Mold.....	447,555	Mar. 3	470	116	54	1206
Beyer, George W., Brooklyn, assignor to H. W. Harris, New York, N. Y. Producing articles of plastic material.....	447,556	Mar. 3	471	116	54	1206
Beyer, George W., and G. W. Harper, Brooklyn, assignors to H. W. Harris, New York, N. Y. Mold.....	461,777	Oct. 20	2012	496	57	398
Beyerly, William G. (See Turley and Beyerly.)						
Beylikgy, Marc W., New York, N. Y. Manufacture of hydrofluosilicic acid.....	465,607	Dec. 22	2571	.....	57	1652
Beylikgy, Marc W., New York, N. Y., assignor of one-half to C. J. Everett, Tenafly, N. J. Silicate compound.....	448,772	Mar. 24	2460	.....	54	1612
Beynon, John R., assignor of one-half to J. B. Murphy, Watertown, Wis. Elevator and cleaner for grain, &c.....	459,570	Sept. 15	1619	406	56	1395
Beyron, Jacob W., Jackson, Ohio. Rein-support.....	447,656	Mar. 3	617	152	54	1234
Bibber, Francis F., <i>et al.</i> (See Hipwood, George, assignor.)						
Bibby, John T. (See Baron and Bibby.)						
Bible, Philip G., Smith, Ga. Stalk-stripper.....	450,445	Apr. 14	1218	298	55	239
Bichet, Alphonse, and R. W. Whitney, Florence, Kans. Fire-alarm.....	463,570	Nov. 17	2145	566	57	983
Bickel, Henry M., Larned, Kans. Knockdown crate.....	444,999	Jan. 20	1652	423	54	339
Bickelhaupt, Adam, New York, N. Y. Furnace.....	454,937	June 30	2733	697	55	1696
Bickelhaupt, Adam, New York, N. Y. Metallic shingle.....	458,152	Aug. 25	1993	516	56	933
Bickelhaupt, George, New York, N. Y. Skylight.....	445,685	Feb. 3	283	75	54	568
Bickford, Caroline M. (See Crowell, Milton B., assignor.)						
Bickford, Charles, Boston, Mass. Machine for marking and printing mail-matter.....	464,704	Dec. 8	1081	{ 267 268 269 }	57	1350
Bickford, James A., Lock Haven, Pa. Mining-car.....	452,464	May 19	1669	{ 418 419 }	55	905
Bickford, John H., Salem, Mass. Car-truck.....	450,608	Apr. 21	1455	358	55	294
Bickford, John H., Salem, Mass., assignor to J. F. Porter, New York, N. Y. Electric connection.....	454,794	June 23	2453	630	55	1638
Bickford, Thomas, Brauford, Conn. Color-printing apparatus.....	456,466	July 21	1856	490	56	370
Bickham, Yeatman. (See Davis, John H., assignor.)						
Bickhart, Jacob, Cadillac, Mich. Side-throw mechanism for saw-mill carriages.....	452,660	May 19	1965	493	55	962

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Bickley, Jehn H. and J. H., Jr., Dover, N. J. Machine for making crow-feet.....	453,959	June 9	1179	308	55	1381
Bickley, John H. and J. H., Jr., Dover, N. J. Rolling-mill.....	457,507	Aug. 11	968	247	56	720
Bicknell, Emery O. (See Gilman, Willard H., assignor.)						
Bicknell, Jonathan, Brooklyn, N. Y. Artist's color-box.....	461,068	Oct. 13	808	206	57	162
Biddall, George, Woodland, Cal. Self-hoisting mechanism.....	459,247	Sept. 8	1101	269	56	1286
Biddle, Thomas M., assignor of one-half to D. D. Weisell, Fort Wayne, Ind. Prepared surface of articles for sealing.....	462,855	Nov. 10	1014	261	57	756
Biddison, Clarence E., Goodland, Kans. Train-order holder.....	456,009	July 14	1136	298	56	224
Bidwell, George A., Pittsfield, Mass. Barrel-washer.....	445,534	Feb. 3	7	2	54	512
Bidwell, George A., Pittsfield, Mass. Pipe-joint.....	460,424	Sept. 29	2945	736	56	1661
Bidwell, George R. (See De Wolfe, Edward R., assignor.)						
Bidwell, Joseph E., assignor to Kalamazoo Spring and Axle Company, Kalamazoo, Mich. Spring bending and fitting machine.....	462,646	Nov. 3	667	168	57	680
Bidwell, Joseph E., assignor to Kalamazoo Spring and Axle Company, Kalamazoo, Mich. Spring bending and fitting machine.....	462,647	Nov. 3	668	169	57	680
Bieber, Philip, St. Louis, Mo. Adjustable stove-pipe.....	458,994	Sept. 8	697	171	56	1209
Biederman, Charles O., Bridgewater, N. Y. Pencil-clasp.....	448,405	Mar. 17	1869	470	54	1492
Biederman, Edwin E., Brooklyn, N. Y. Tension-regulator for twine-bobbins.....	453,073	May 26	2639	{ 665 666 667 }	{ 55 56 57 }	{ 1100 1101 1102 }
Biedermann, Alexander, Parsch, near Salzburg, Austria-Hungary. Brake.....	459,624	Sept. 15	1719	{ 431 432 433 }	{ 56 57 58 }	{ 1413 1414 1415 }
Biedermann, Emil, and E. W. Harvey, assignors to F. and A. Siemens, Westminster, England. Utilizing products of combustion.....	451,612	May 5	255	60, 61	55	628
Bierdenmann, Gustavus A., Utica, N. Y. Fountain-pen.....	453,608	June 9	678	176	55	1284
Bieger, Wilhelm, Stuttgart, Germany. Piano.....	464,239	Dec. 1	364	88	57	1202
Biel, Fred. J. (See Deeds, John B., assignor.)						
Bien & Co., Julius. (See MacKay, William, assignor.)						
Bien, Julius, et al. (See Cruse, Amandus H., assignor.)						
Bierley, Henry A., Lexington, Ky. Cash-register.....	462,615	Nov. 3	618	{ 155 156 157 }	{ 57 58 59 }	{ 670 671 672 }
Biesen, Anthony, Merrill, Iowa. Buckle-connection.....	445,491	Jan. 27	2368	621	54	491
Bigelow, David E. (See Armstrong, Bigelow, and Osborn.)						
Bigelow, Frank G., et al. (See Jacobs, Henry E., assignor.)						
Bigelow, Frank R., Gloucester City, N. J. Bicycle.....	453,540	June 2	568	144	55	1255
Bigelow, Jerome B., Cuba, N. Y. Corset-cover.....	451,907	May 12	723	182	55	722
Bigelow, Lucius S., Harrisburg, Pa. Paper-ruling machine.....	445,518	Jan. 27	2429	634	54	499
Bigger, Thomas J. (See Clough, Thomas A., assignor.)						
Biggs, Frederick J., assignor to Tubular Lock Syndicate, Limited, London, England. Lock.....	450,765	Apr. 21	1725	418	55	353
Biggs, Frederick J., assignor to Tubular Lock Syndicate, Limited, London, England. Lock.....	452,893	May 26	2338	590	55	1042
Bigham, James O., Fleming, Tex. Wire-stretcher.....	455,383	July 7	138	35	56	30
Bildt, Carl W., Worcester, Mass. Treating wire rods.....	459,903	Sept. 22	2168	545	56	1506
Bildt, Carl W., Worcester, Mass. Manufacture of wire rods.....	459,924	Sept. 22	2193	551	56	1511
Bilgram, Hugo, Philadelphia, Pa. Balance-wheel for time-pieces.....	455,787	July 14	804	210	56	164
Bilheimer, Cyrus F., Irwin, Pa. Combined receiving and delivery letter-box.....	460,106	Sept. 29	2461	615	56	1569
Billberg, Carl O. C., Philadelphia, Pa. Commutator connection for dynamo-electric machines.....	465,233	Dec. 15	1947	496	57	1525
Billberg, Carl O. C., Philadelphia, Pa. Brush-holder for dynamo-electric machines or motors.....	465,234	Dec. 15	1948	496	57	1525
Billberg, Carl O. C., and P. A. N. Winand, Philadelphia, Pa. Automatic electric switch.....	455,092	June 30	3017	766	55	1751
Billeaux, Rudolph, Chicago, Ill. Hammock-chair.....	445,499	Jan. 27	2369	621	54	492
Billeaux, Rudolph, Chicago, Ill. Baby-jumper.....	450,394	Apr. 14	1129	279	55	224
Billig, Carl O. C., and P. A. N. Winand, Philadelphia, Pa. Alternating-current motor.....	444,934	Jan. 20	1550	397	54	318
Billing, John H., Marshfield, Wis. Combined flour cabinet and table.....	465,108	Dec. 15	1754	443	57	1488
Billings, Andrew W., Brooklyn, N. Y. Manufacturing beer and ale.....	466,151	Dec. 29	3450	.....	57	1833
Billings, Arthur T. (See Billings, William G. and A. W., assignors.)						
Billings, Avery W. (See Billings, William G. and A. W.)						
Billings, George A. (See Closser, Billings, Thomson, and Knuth.)						
Billings, George W., and B. P. Kenyon, Cleveland, Ohio. Oil-tank for vapor-stoves.....	464,953	Dec. 15	1463	368	57	1434
Billings, Harrison, Jamestown, N. Y. Lifting-jack.....	449,515	Mar. 31	3660	919	54	1846
Billings, Henry M. (See Dannenberg, Charles, assignor.)						
Billings, William G. and A. W., assignors of one-third to A. T. Billings, Larned, Kans. Rotary engine.....	447,535	Mar. 3	442	{ 108 109 110 }	{ 54 55 56 }	{ 1201 1202 1203 }
Billon-Haller, Jean, Geneva, Switzerland. Safety-check for music-boxes.....	457,574	Aug. 11	1068	273	56	741
Bills, Armistead O. (See Baker, Joseph G., assignor.)						
Bills, Willis Z. (See Wilson, Edgar W., assignor.)						
Bilstad, Ole. (See Tverdal, Ole, assignor.)						
Binau, Anthony M., Baltimore, Md. Combined sieve and mixer.....	454,323	June 16	1709	446	55	1491
Binder, Carl. (See Meyer and Binder.)						
Binder, Gottlob, Philadelphia, Pa. Ironing-machine.....	444,722	Jan. 13	1149	{ 296 297 298 }	{ 54 55 56 }	{ 234 235 236 }
Binder, John W., Philadelphia, Pa. Injector for feeding steam-boilers.....	452,175	May 12	1191	301	55	806
Bindseil, Hermann F., New York, N. Y. Muff.....	462,225	Oct. 27	2721	685	57	543
Bingham, Charles D., Watertown, N. Y. Vise-jaw cap.....	455,651	July 7	573	148	56	111
Bingham, Henry, Freshfield, near Liverpool, England. Tobacco-smoking mixture.....	445,438	Jan. 27	2312	.....	54	478
Bingham, John H., Chicago, Ill. Tire for vehicle-wheels.....	466,112	Dec. 29	3379	863	57	1819
Bingham, Leander K., New York, N. Y. Apparatus for making printers' rollers.....	444,206	Jan. 6	369	92	54	74
Bingham, Leander K., New York, N. Y. Apparatus for making printers' rollers.....	456,876	July 28	2542	667	56	507
Bingham, Martin, assignor of two-thirds to A. Johnson and O. C. Hanson, Shelton, Wash. Eaves-trough hanger.....	456,877	July 28	2543	667	56	507
Bingham, Millard F., Chicago, Ill. Apparatus for casting printers' rollers.....	443,629	Mar. 24	2233	560	54	1569
Bingham, Norman W., Somerville, Mass. Heel-attaching machine.....	460,175	Sept. 29	2570	641	56	1590
Binney, Edwin, assignor of one-half to C. H. Smith, New York, N. Y. Apparatus for the manufacture of carbon-black.....	453,140	May 26	2748	693	55	1121
Binnix, Benjamin F., Seabrook, Md. Steam-valve.....	456,395	July 21	1738	459	56	348
Binns, Frederick C. (See Wrigglesworth and Binns.)						
Birch, George A., East Greenbush, N. Y. Apparatus for planing and corrugating ice.....	447,000	Feb. 24	2434	{ 605 606 607 }	{ 54 55 56 }	{ 1012 1013 1014 }
Birch, James C., and C. Dancel, Brooklyn, N. Y. Machinery for rubbing type.....	457,575	Aug. 11	1069	273	56	741
Birch, Joseph W., New York, assignor to J. R. Keatinge, Brooklyn, N. Y. Machine for finishing inking-pads.....	456,544	July 28	1984	523	56	403
Birch, William, Manchester, England. Filter.....	461,232	Oct. 13	1073	272	57	213
Birkhead, Edward E., Galloway's, Md. Churn.....	458,442	Aug. 25	1480	603	56	1024
Bird, Alfred F., Birmingham, assignor to Patent Box and Printing Company, Limited, Manchester, England. Apparatus for the manufacture of card-board boxes.....	456,878	July 28	2544	{ 667 668 669 }	{ 56 57 58 }	{ 508 509 510 }

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Bird, Charles S. (See Piper, Myron H., assignor.)						
Bird, Demoncey, Madison, Wis. Windmill	445,034	Jan. 20	1694	435	54	347
Bird, Francis H., Lazezarville, W. Va. Wheelbarrow	466,001	Dec. 29	3218	819	57	1786
Bird, J. W. (See Freer, Harry H., assignor.)						
Bird, John, assignor of one-half to H. H. Locke, Bradford, Pa. Plunger for working barrels of pumps	464,418	Dec. 1	635	156	57	1255
Bird, Norton S., New Haven, Conn. Ash-sifter	451,257	Apr. 28	2522	622	55	513
Bird, Preston B. (See Hiscock, Alfred O., assignor.)						
Bird, Richard C. and D. A. Page, Chicago, Ill. Bed-bottom	451,908	May 12	725	182	55	722
Bird & Son, F. W. (See Zimmermann, Arnold W., assignor.)						
Bird, Thomas, Brooklyn, N. Y. Pipe-wrench	459,559	Sept. 15	1605	403	56	1392
Birdsall, Edward T., New York, N. Y., and L. W. Serrell, Plainfield, N. J. Trolley-wire hanger	463,824	Nov. 24	2547	664	57	1068
Birdsell Manufacturing Company. (See Mallon, James, assignor.)						
Birge, Elias B., St. Paul, Minn. Weight-releasing device	463,026	Nov. 10	1275	331	57	808
Birkby, Henry, Chillicothe, Ill. Track-layer	447,754	Mar. 10	772	{ 191 192 }	{ 54 }	1271
Birkery, Cornelius. (See Shea and Birkery.)						
Birkett, James W., Brooklyn, N. Y. Pipe-hanger	462,616	Nov. 3	621	157	57	671
Birkholz, Hans, assignor to E. P. Allis & Co., Milwaukee, Wis. Conveyer	455,384	July 7	138	36	-56	30
Birkholz, Richard, Milwaukee, Wis. Desiccating apparatus	449,359	Mar. 31	3396	{ 854 855 }	{ 54 }	1795
Birkholz, Richard, assignor to Economy Dryer Company, Milwaukee, Wis. Desiccating apparatus	451,395	Apr. 28	2722	676	55	551
Birkmire, William H., assignor to E. G. Soltmann, New York, N. Y. Fountain ruling-pen	445,944	Feb. 3	699	170	54	650
Birmingham, Patrick H. (See Killen and Birmingham.)						
Birnbaum, Henry. (See Nicholas and Birnbaum.)						
Birney, Charles O., Kansas City, Mo. Sash-fastener	465,517	Dec. 22	2419	617	57	1625
Birney, Charles O., Kansas City, Mo. Sash-fastener	465,518	Dec. 22	2420	618	57	1625
Biro, Eugen, Essegz, Austria-Hungary. Hay-knife	463,806	Nov. 24	2524	658	57	1063
Birtels, John M., Baltimore, Md. Car-coupling	456,080	July 14	1233	324	56	243
Bisauer, Jacob H., Lincoln, N. C. Separator	448,198	Mar. 17	1510	385	54	1424
Bisceglia, Salvatore, Chicago, Ill. Adjustable pattern for drafting garments	447,932	Mar. 10	1087	273	54	1331
Bisceglia, Salvatore, Chicago, Ill. Trousers-pattern	455,503	July 7	318	82	56	64
Bisceglia, Salvatore, Chicago, Ill. Sleeve-pattern	455,811	July 14	847	{ 222 223 }	{ 56 }	170
Bisel, Joseph J., assignor to E. H. Clapp, A. E. Steckwell, and W. Haslam, Philadelphia, Pa. Clothes-drier	455,301	July 7	10	2	56	5
Bisset, Edward W., Dallas City, Pa. Adjuster for polish-rods	462,390	Nov. 3	278	69	57	603
Bishman, George A., Brookings, S. D. Sulky-plow	465,914	Dec. 29	3050	781	57	1755
Bishman, William, Washington, Pa. Curtain-fixture	455,982	July 14	1094	288	56	216
Bishman, William, assignor of two-thirds to M. Sharp and F. Hood, Washington, Pa. Key-fastener	454,419	June 16	1866	488	55	1520
Bishop, A. C., et al. (See Murdock, Horace B., assignor.)						
Bishop, A. Cushman. (See Haulenbeck, John H., assignor.)						
Bishop, Abner B., Medina, Ohio. Fifth-wheel for wagons	448,843	Mar. 24	2569	644	54	1633
Bishop, Amos D. (See Wall, Jones, and Bishop.)						
Bishop, Charles, Cleveland, and O. D. Miller, Brooklyn, Ohio. Combined shaft-support and anti-rattler	459,956	Sept. 22	2233	561	56	1518
Bishop, Charles E. (See Fox, Frank A., assignor.)						
Bishop, Clarence B., assignor to National Sliding Hinged Screen Company, Chicago, Ill. Sliding screen, door, &c	451,631	May 5	290	71	55	633
Bishop, Daniel H. (See Reed, George M., assignor.)						
Bishop, George H., Northport, N. Y. Dust-pan and broom-holder	452,358	May 19	1488	369	55	873
Bishop, George W. (See Brock, Fenelon B., assignor.)						
Bishop, James D., Brooklyn, N. Y. Insulated electric conductor	449,400	Mar. 31	3472	874	54	1810
Bishop, James D., New York, N. Y. Machine for covering cables	450,131	Apr. 14	717	180	55	146
Bishop, John L., Manchester, England. Ventilation of rooms	465,708	Dec. 22	2716	693	57	1681
Bishop, Lamartine, Baltimore, Md. Indicator-lock	462,194	Oct. 27	2668	668	57	533
Bishop, Marcus K. (See Smith and Bishop.)						
Bishop, Seth W., et al. (See Furlong and Tucker, assignors.)						
Bishop, William H., et al. (See Middleton, Abram, assignor.)						
Bissell, Edgar J., Bartold, Mo. Lamp	455,155	June 30	3124	794	55	1771
Bissell, Thomas A., Buffalo, N. Y. Car-coupling	448,406	Mar. 17	1870	470	54	1492
Bissell, Thomas A., Buffalo, N. Y. Vestibule-hood for cars	449,896	Apr. 7	379	96	55	74
Bissell, Thomas A., Buffalo, N. Y. Vestibule-hood for cars	453,782	June 9	956	{ 248 249 }	{ 55 }	1337
Bissell, Thomas A., Buffalo, N. Y. Car-framing	457,486	Aug. 11	939	{ 238 239 }	{ 56 }	714
Bissell, Thomas A., and C. Bergman, Buffalo, N. Y. Buffer-platform for cars	457,929	Aug. 18	1654	433	56	860
Bissell, Williston W., Rochester, N. Y. Eyeglasses	465,406	Dec. 15	2237	572	57	1579
Bissett, Edwin H., assignor to D. A. Smith, Montreal, Canada. Nail-cutting machine	457,416	Aug. 11	822	{ 211 212 }	{ 56 }	693
Bittinger, Hans, Brunswick, Germany. Dust-collector	446,053	Feb. 10	893	216	54	693
Bixler, Orlando, Wellston, Ohio. Railway-switch	448,112	Mar. 10	1361	348	54	1385
Blachly, Henry W., et al. (See Brown, James W., assignor.)						
Blachon, Pétus, and E. Minard, St. Etienne, France. Breach-loading gun	444,574	Jan. 13	941	244	54	195
Blacio, Enrique J., Cerritos, Mexico. Typo-writing machine	465,589	Dec. 22	2543	{ 648 649 }	{ 57 }	1647
Black, Asher F., Malden, Mass. Apparatus for treating sewage	450,094	Apr. 7	653	165	55	128
Black, Charles H., Roan, Ind. Wire-stretcher	463,475	Nov. 17	1996	522	57	955
Black, Corydon W. (See Tredwell and Black.)						
Black, David W., assignor to B. Masseth, Butler, Pa. Casing-spear	414,061	Jan. 6	126	31	54	28
Black, George E., et al. (See Baker, James H., assignor.)						
Black, J. M., et al. (See George, Albert F., assignor.)						
Black, John J., assignor to Black Spring and Gear Company, Cleveland, Ohio. Vehicle running-gear	451,021	Apr. 28	2146	530	55	440
Black, John J., assignor to Black Spring and Gear Company, Cleveland, Ohio. Fifth-wheel	451,687	May 5	376	92	55	650
Black, John J., assignor to Black Spring and Gear Company, Cleveland, Ohio. Vehicle running-gear	461,626	Oct. 20	1769	436	57	352
Black, Robert C., St. Paul, Minn. Metal soil-pipe	465,749	Dec. 22	2782	{ 710 711 }	{ 57 }	1694
Black, Ross W., Pittsburg, Pa. Styptic remedy	459,738	Sept. 22	1903		56	1455

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Black Spring and Gear Company. (See Black, John J., assignor.)						
Black, Stephen S., Pasadena, Cal. Agricultural implement for irrigating	445,510	Jan. 27	2418	631	54	496
Black, Stephen S., assignor of one-half to E. A. Cochran, Pasadena, Cal. Skate	446,421	Feb. 17	1516	373	54	826
Black, William L., Fort McKavett, Tex. Compensating pump-spring	450,657	Apr. 21	1573	378	55	323
Blackall, Robert C., et al. (See Murray, Thomas E., assignor.)						
Blackburn, Charles W., assignor of one-half to J. J. Patton, Tombstone, Ariz. Ter. Whiffletree-hook	462,195	Oct. 27	2670	668	57	533
Blackburn, Frederick A., Bisbee, Ariz. Buckle-fastener	463,476	Nov. 17	1997	522	57	955
Blackburn, Joseph S., Salem, Ohio. Wire-feeding device	463,935	Nov. 24	2741	711	57	1103
Blackburn, William, R. E. Bray, and L. Clayton, Halifax, England. Machine for scouring and dyeing yarn	455,854	July 14	902	{ 236 237 }	56	182
Blackhall, Edward W. (See Anderson, Robert, assignor.)						
Blackie, Patrick, Redfern, near Sydney, and J. Nisbet, Coolabah, New South Wales. Mechanical motion	458,746	Sept. 1	298	73	56	1122
Blackie, Patrick, Redfern, near Sydney, and J. Nisbet, Coolabah, New South Wales. Animal-shears	460,357	Sept. 29	2858	712	56	1645
Blackman, Ebenezer, assignor of one-half to E. H. Brown, Brooklyn, N. Y. Wick-raiser for central-draft lamps	461,101	Oct. 13	854	220	57	171
Blackman, Fred. S. (See Blackman, George L. and F. S.)						
Blackman, George L. and F. S., Ithaca, assignors of one-third to H. H. and L. H. Cobb, Whitesville, N. Y. Thill-coupling	463,618	Nov. 24	2239	590	57	1010
Blackmer, Orlando C., Oak Park, Ill. Calendar	445,745	Feb. 3	379	97	54	588
Blackmore, George C. (See Blackmore, Lawrence R., G. C., and J. J.)						
Blackmore, George C. and L. R., Newark, N. J. Radiator	448,630	Mar. 24	2234	{ 560 561 }	54	1569
Blackmore, Henry S., Mount Vernon, N. Y. Percolator	466,152	Dec. 29	3452	883	57	1833
Blackmore, James E., Grand Rapids, Mich. Spool-holder	444,113	Jan. 6	213	51	54	43
Blackmore, Joseph J. (See Blackmore, Lawrence R., G. C., and J. J.)						
Blackmore, Lawrence R. (See Blackmore, George C. and L. R.)						
Blackmore, Lawrence R., G. C., and J. J., Newark, N. J. Sectional water-heater	462,683	Nov. 10	739	192	57	702
Blackshaw, Joseph E., Pittsburg, Pa., and G. H. Rogers, Birmingham, Ala. Adding-machine	454,838	June 30	2538	653	55	1659
Blackshaw, Joseph E., Pittsburg, Pa., and G. H. Rogers, Birmingham, Ala. Adding-machine	463,027	Nov. 10	1276	331	57	808
Blackstock, George T., et al. (See Bunker, Harman, assignor.)						
Blackstock, Ira B., et al. (See Elliott, George C., assignor.)						
Blackstock, Robert, et al. (See Elliott, George C., assignor.)						
Blackstock, William M., et al. (See Elliott, George C., assignor.)						
Blackwell, Francis O., Lynn, Mass. Guard for trolley-wire insulators	465,447	Dec. 22	2299	590	57	1602
Blackwell, Francis O., New York, N. Y., assignor to Thomson-Houston Electric Company, of Connecticut. Electric-motor truck	448,199	Mar. 17	1511	{ 385 386 }	54	1425
Blackwell, Francis O., New York, N. Y., assignor to Thomson-Houston Electric Company, of Connecticut. Electric-railway conduit	449,196	Mar. 31	3114	786	54	1745
Blackwell, Francis O., New York, N. Y., assignor to Thomson-Houston Electric Company, of Connecticut. Electric-motor truck	449,197	Mar. 31	3115	786	54	1746
Blackwell, Francis O., New York, N. Y., assignor to Thomson-Houston Electric Company, of Connecticut. Electric railway	452,160	May 12	1156	{ 292 293 }	55	799
Blackwell, Francis O., New York, N. Y., assignor to Thomson-Houston Electric Company, of Connecticut. Controlling device for electric motors	452,422	May 19	1586	{ 393 394 }	55	891
Blackwell, Francis O., New York, N. Y., assignor to Thomson-Houston Electric Company, of Connecticut. Controlling device for electric motors	452,423	May 19	1587	394	55	892
Blackwell, Francis O., New York, N. Y., assignor to Thomson-Houston Electric Company, of Connecticut. Controlling device for electric motors	462,369	Nov. 3	242	59	57	596
Blackwell, Francis O., New York, N. Y., assignor to Thomson-Houston Electric Company, of Connecticut. Commutator-brush	462,466	Nov. 3	395	97	57	625
Blackwell, Francis O., Boston, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric railway	454,023	June 16	1273	331	55	1406
Blackwell, Francis O., Boston, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Switch for electric railways	463,766	Nov. 24	2468	645	57	1052
Blackwell, Henry F., Jr., and W. G. Carlisle, Brooklyn, N. Y. Sign and apparatus for making the same	456,545	July 28	1985	524	56	404
Blackwell, John W. (See Brown and Blackwell.)						
Blackwell, Josiah L., New York, N. Y. Conduit-inspector	444,687	Jan. 13	1105	286	54	226
Blackwood, Lorenzo D., and M. A. Goff, Lathrop, Mo. Weather-strip	463,846	Nov. 24	2659	693	57	1088
Blades, Harry H., Detroit, Mich. Trolley for electric railways	444,893	Jan. 20	1471	380	54	304
Blades, Harry H., Detroit, Mich. Brush-holder	451,909	May 12	726	182	55	723
Blades, Harry H., Detroit, Mich. Automatic electric switch mechanism	453,032	May 26	2566	649	55	1087
Blades, Harry H., Detroit, Mich. Electric motor	454,024	June 16	1275	{ 331 332 }	55	1407
Blades, Harry H., Detroit, Mich. Electrical switch	457,338	Aug. 11	699	180	56	668
Blades, Harry H., Detroit, Mich. Electrical switch	457,339	Aug. 11	701	180	56	668
Blades, Harry H., Detroit, Mich. Electric elevator	459,229	Sept. 8	1071	260	56	1280
Blades, Harry H., Detroit, Mich. Commutator-brush holder	459,739	Sept. 22	1903	480	56	1455
Blades, Harry H., assignor to Detroit Motor Company, Detroit, Mich. Electric dental motor	447,291	Mar. 3	11	4	54	1120
Blades, Harry H., and W. J. McKee, Detroit, Mich. Electric elevator	462,527	Nov. 3	480	116	57	643
Blaine, David W., Pratt, Kans. Corn-harvester	444,723	Jan. 13	1151	{ 297 298 }	54	235
Blaine, George E., and P. T. South, Waynesville, Ohio. Combined fence and tree protector	446,849	Feb. 24	2179	543	54	967
Blair Camera Company. (See Blair, Thomas H., assignor.)						
Blair Camera Company. (See Blair and Crowell, assignors.)						
Blair Camera Company. (See Blair and Kelley, assignors.)						
Blair, David G., et al. (See Osborn, David L., assignor.)						
Blair, George F. (See Sullivan, Daniel F., assignor.)						
Blair, Henry W. (See Dnechemin, William, assignor.)						
Blair, John, North Orillia, and A. G. Hunter, Dundalk, Ontario, Canada. Pyro-chemical battery	446,727	Feb. 17	1986	495	54	917
Blair, Joseph F., assignor of one-half to S. E. Willis, High Point, N. C. Bedstead-brace	458,265	Aug. 25	2192	535	56	970
Blair, Thomas H., Boston, Mass., assignor to Blair Camera Company. Roll-holder for cameras	461,306	Oct. 13	1178	300	57	236
Blair, Thomas H., Boston, and J. H. Crowell, Vineyard Haven, Mass., assignors to Blair Camera Company, of Massachusetts. Camera	450,214	Apr. 14	837	210	55	169
Blair, Thomas H., Boston, and J. H. Crowell, Vineyard Haven, Mass., assignors to Blair Camera Company. Camera-shutter	461,307	Oct. 13	1180	301	57	236

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Blair, Thomas H., and F. H. Kelley, assignors to Blair Camera Company, Boston, Mass. Roll-holder for cameras	461,308	Oct. 13	1182	301	57	236
Blaisdell, Frank. (See Smith, John R., assignor.)						
Blaisdell, Frank E., Boston, Mass. Bill-strap	451,657	May 5	327	79	55	641
Blaisdell, Frederick E., New York, N. Y., assignor of one-third to R. H. Thompson, Philadelphia, Pa. Pencil	461,911	Oct. 27	2234	552	57	450
Blake, Carloline E. (See Bates and Blake.)						
Blake, George H., Portland, Me. Artificial stone	460,195	Sept. 29	2598	-----	56	1595
Blake, Isaac E., and H. Rauchfuss, Denver, Colo. Hydrocarbon-burner	452,944	May 26	2432	614	55	1061
Blake, Isaac E., and H. Rauchfuss, Denver, Colo. Hydrocarbon-burner	453,335	June 2	246	65	55	1195
Blake, John W., Marshall, Minn. Barbed wire for fences	446,607	Feb. 17	1793	444	54	881
Blake & Johnson. (See Manville, Frank B., assignor.)						
Blake, Rufus W., assignor to Sterling Company, Derby, Conn. Pedal attachment for pianos	445,035	Jan. 20	1695	436	54	347
Blake, William H., 2d, and E. T. Bradley, Swanton, Vt. Flexible rule	447,657	Mar. 3	617	152	54	1234
Blakely, John, Brooklyn, N. Y. Police-nippers	456,936	Aug. 4	10	3	56	534
Blakely, William, Bournemouth West, England. Crank for bicycles	446,280	Feb. 10	1289	315	54	767
Blakely, William, Bournemouth West, England. Handle for bicycles	450,906	Apr. 21	1956	479	55	395
Blakely, William, Bournemouth West, England. Velocipede	450,907	Apr. 21	1957	480	55	395
Blakemore, Benjamin A., Staunton, Va. Marking device for photographic negatives	456,396	July 21	1739	459	56	348
Blaker, Paul, Newtown, Pa. Spring-tooth harrow or cultivator	453,058	May 26	2610	660	55	1095
Blaker, Paul, Newtown, Ohio. Harrow or cultivator	454,324	June 16	1711	446 447	55	1491
Blakeslee, Edward E., Brooklyn, N. Y. Pencil-sharpener	456,531	July 21	1962	516	56	391
Blakeslee, Ira L., Kirkwood, N. Y. Metallic railway-tie	450,132	Apr. 14	719	180	55	146
Blakesley, Gilbert H., Bristol, Conn. Repeating mechanism for clocks	457,024	Aug. 4	138	34	56	560
Blakesley, Gilbert H., assignor to Blakesley Novelty Company, Bristol, Conn. Can-opener	451,258	Apr. 28	2524	622	55	514
Blakesley Novelty Company. (See Blakesley, Gilbert H., assignor.)						
Blakesley, Stephen F. (See Burt, Frederick N., assignor.)						
Blakey, Thomas W., assignor of one-half to J. A. Wright, Keene, N. H. Composition of matter for artificial stone	450,987	Apr. 21	2090	-----	55	421
Blalock, David. (See Mace, Harvey A., assignor.)						
Blanchard, George W., assignor of one-half to S. G. Webber, Waterville, Me. Electric-car-stopping device	449,843	Apr. 7	306	79	55	60
Blanchard, George W., Waterville, Me., assignor to Electrical Forging Company, of Maine. Electric heating-tool	466,266	Dec. 29	3624	927	57	1865
Blanchard, Milton E. (See Wood, Franklin J., assignor.)						
Blanchard, Myra. (See Minnick, Albert, assignor.)						
Blanchard, Porter H., et al. (See Connatt, Matthew F., Jr., assignor.)						
Blank, Alois, St. Louis, Mo. Water-proof and fire-proof material for roofing, &c.	448,495	Mar. 17	2009	462	54	1518
Blankerts, Albert, assignor to A. Harvey & Son, Detroit, Mich. Manifold valve	456,546	July 28	1956	324	56	404
Blankley, James A. (See Stewart and Blankley.)						
Blankman, Arnold H., Alton, N. Y. Car-coupling	461,540	Oct. 20	1632	399	57	327
Blasdel, Elijah S., and J. R. Morse; said Blasdel assignor, by mesne assignments, to C. B. Gould, Los Angeles, Cal. Hydrocarbon-burner	456,583	Nov. 28	2041	539	56	414
Blaser, Gustav, Cincinnati, Ohio. Unicycle	462,295	July 3	120	31	57	574
Bläsi, Joseph, assignor of one-half to N. F. Hess, Everest, Kans. Animal-trap	452,209	May 12	1238	312	55	815
Blass, Eduard, Essen-on-the-Ruhr, Germany. Steam-boiler	456,689	July 28	2216	587	56	448
Blass, Eduard, Essen-on-the-Ruhr, Germany. Apparatus for impregnating gases with vapors of volatile substances	458,937	Sept. 1	608	150	56	1183
Blassberg, Hugo, Wald, Germany. Umbrella attachment	454,395	June 16	1819	475	55	1510
Blatchford, Eliphalet W. (See Pearson, Phelps, and Blatchford.)						
Bläthy, Otto T., Buda-Pesth, Austria-Hungary. Transformer-motor	464,671	Dec. 8	1021	255 256	57	1340
Blattner & Adam. (See Adam and Knapik, assignors.)						
Blattner, Joseph, Allegheny, Pa. Steam or air coupling for cars	457,246	Aug. 4	497	131	56	626
Blauvelt, Basil M. (See Downham and Blauvelt.)						
Blauvelt, James M. S., Brooklyn, N. Y. Coin-controlled weighing-scale	448,200	Mar. 17	1513	386	54	1425
Blauvelt, James M. S., Brooklyn, N. Y. Coin-controlled weighing-machine	457,981	Aug. 18	1737	456 457	56	876
Blauvelt, James N., Brooklyn, N. Y. Coin-controlled dancing figure	445,535	Feb. 3	9	2	54	512
Blazier, Mary B., Brooklyn, N. Y. Combined window-chair and step-ladder	459,571	Sept. 15	1622	407	56	1396
Blazier, Oscar V., Gillette, N. J. Railway time-signal	451,193	Apr. 28	2424	599	55	494
Bledsoe, William P. and Y. M., Carlock, Tenn. Cotton-planter	459,230	Sept. 8	1072	260 261	56	1280
Bledsoe, Yancy M. (See Bledsoe, William P. and Y. M.)						
Blöha, William V., St. Louis, Mo. Hat-hanger	458,783	Sept. 1	354	86	56	1133
Bieller, Frederick. (See Duenner, Henry, assignor.)						
Bleiss, William, assignor of one-half to W. B. Knight, deceased, Kansas City, Mo.; D. Bon-tecon administrator. Ornamenting artificial stone	451,799	May 5	543	134	55	681
Blessing, Charles A., Philadelphia, Pa. Siphon-valve flushing apparatus for water-closets	446,808	Feb. 17	2107	524	54	943
Blessing, James H., Albany, N. Y. Steam stop-valve	451,848	May 5	605	150	55	695
Blessing, James H., Albany, N. Y. Triple steam-engine	451,849	May 5	607	151	55	695
Blessing, James H., Albany, N. Y. Piston for steam-engines	451,850	May 5	610	151	55	695
Blessing, James H., and C. H. Overton, Albany, N. Y.; said Overton assignor to said Blessing. Duplex steam-engine	451,904	May 5	605	174 175	55	710
Blessinger, Joseph, Huntingburg, Ind. Spindle and box for wheels	453,960	June 9	1181	308	55	1382
Blickensderfer, George C., Stamford, Conn., assignor to Blickensderfer Manufacturing Company, New York, N. Y. Type-writing machine	457,298	Aug. 4	589	155 156	56	642
Blickensderfer, George C., Stamford, Conn., assignor to Blickensderfer Manufacturing Company, New York, N. Y. Type-writing machine	457,333	Aug. 4	658	172 173 174	56	655
Blickensderfer, George C., Stamford, Conn., assignor to Blickensderfer Manufacturing Company, New York, N. Y. Type-writing machine	459,093	Sept. 8	853	206 207 208	56	1237
Blickensderfer, George C., Stamford, Conn., assignor to Blickensderfer Manufacturing Company, New York, N. Y. Type-writing machine	459,094	Sept. 8	865	208 209	56	1240
Blickensderfer Manufacturing Company. (See Blickensderfer, George C., assignor.)						
Bligh, Samuel L., Custard's, Pa. Axle-nut wrench	463,028	Nov. 10	1278	331	57	808
Blincoe, Aloysius G., Loretto, Ky. Temporary binder	453,574	June 2	619	158	55	1264
Blinn, Charles P., Brooklyn, N. Y. Game or puzzle apparatus	458,297	Aug. 25	2247	549	56	980
Blinn, George A., Denver, Colo. Brick-press	463,246	Nov. 17	1633	425 426	57	885
Blinn, Joseph S., New Haven, Conn. Potato-masher	456,937	Aug. 4	11	3	56	535

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Bliss, Henry S., assignor of seven-sixteenths to J. S. Gantz, J. Van Buskirk, L. L. Davis, F. M. Gantz, J. P. McElroy, A. W. Bangs, L. Parkhurst, and J. R. Brennan, Rapid City, S. D. Fire-escape.	456,532	July 21	1963	517	56	391
Bliss, James F., Boston, Mass. Boiler-furnace.	459,435	Sept. 15	1408	{ 351 352 }	{ 56 56 }	1355
Bliss, John L., Brooklyn, N. Y. Ship's binnacle.	448,201	Mar. 17	1515	386	54	1426
Bliss, Watson H., Hartford, Conn. Portable election-booth.	463,439	Nov. 17	1944	507	57	944
Bliss, William, and E. Bradbury, Chipping Norton, and A. H. Gilson, Birmingham, Eng. land. Apparatus for burning gas-tar or other liquid fuel.	450,052	Apr. 7	504	{ 147 148 149 }	{ 55 55 55 }	115
Bliven, Alonzo P., Brooklyn, N. Y. Valve for steam-engines.	459,151	Sept. 8	954	{ 230 231 228 229 }	{ 56 56 57 57 }	1258
Bliven, Alonzo P., Brooklyn, N. Y. Sectional steam-generator.	461,124	Oct. 13	880	669	57	177
Blizzard, Stephen R., Lincoln, Nebr. Foot-guard for railway-tracks.	462,196	Oct. 27	2671	669	57	534
Bloch, Solomon. (See Wells, George H., assignor.)						
Blocher, John, Franklin Grove, Ill. Sash-holder.	454,025	June 16	1276	332	55	1407
Block, David, New York, N. Y. Sheet-metal cabinet.	445,388	Jan. 27	2237	580	54	462
Block, Israel. (See Goldstein and Block.)						
Block, Mannie H., et al. (See Peirce, Almy L., assignor.)						
Blodgett, Charles W., New York, N. Y. Gas-scrubber.	460,300	Sept. 29	2763	688	56	1627
Blodgett, Charles E., Toledo, Iowa. Daily reminder.	451,910	May 12	726	182	55	723
Blodgett, Eber. (See Tinker and Benjamin, assignors.)						
Blodgett, Edward G., et al. (See Keene, Samuel D., assignor.)						
Blodgett, William E., Faribault, assignor of one-half to I. A. Barnes, Minneapolis, Minn. Holder.	446,545	Feb. 17	1710	419	54	864
Blode, Victor G., Baltimore, Md. Coloring and finishing fabrics.	449,104	Mar. 31	2'63		54	1718
Blondell, John M., assignor to F. E. Tobe, Baltimore, Md. Railway-car gear.	449,643	Mar. 31	3875	{ 969 970 }	{ 54 54 }	1886
Blondell, John M., assignor to F. E. Tobe, Baltimore, Md. Draw-iron for horse-cars.	449,644	Mar. 31	3877	970	54	1886
Blondell, John M., assignor to F. E. Tobe, Baltimore, Md. Railway-car brake.	449,645	Mar. 31	3877	970	54	1886
Blondell, John M., assignor to F. E. Tobe, Baltimore, Md. Draft-pole for horse-cars.	449,646	Mar. 31	3879	970	54	1887
Blondell, John M., assignor to F. E. Tobe, Baltimore, Md. Whiffletree.	449,647	Mar. 31	3880	971	54	1887
Blood, Frank A., et al. (See Johnson, Chester P., assignor.)						
Blood, James, et al. (See Johnson, Chester P., assignor.)						
Blood, Joel S., Napa, Cal. Knife and shears sharpener.	455,917	July 14	999	259	56	200
Blood, Joel S., Napa, Cal. Washing-machine.	465,152	Dec. 15	1829	464	57	1501
Blood, John D., et al. (See Johnson, Chester P., assignor.)						
Blood, John H. (See Southard and Smith, assignors.)						
Blood, Mary L. (See Blood, Maurice E., assignor.)						
Blood, Maurice E., Kalamazoo, Mich. Parcel-carrier for bicycles.	446,748	Feb. 17	2017	504	54	924
Blood, Maurice E., assignor to M. L. Blood, Kalamazoo, Mich. Parcel-carrier for bicycles.	453,311	June 2	201	55	55	1186
Bloodgood, Clara, et al. (See Sperry, John, assignor.)						
Bloom, Charles J., Elmo, Mo. Churn.	465,335	Dec. 15	2122	543	57	1556
Bloom, Samuel S. (See Page and Bloom.)						
Bloom, William H. (See McNiece and Bloom.)						
Bloomer, John H., Jersey City, N. J. Rock-breaker.	465,153	Dec. 15	1830	464	57	1501
Bloomfield, Russell C., Barnes, Kans. Hitching-post.	458,938	Sept. 1	609	150	56	1183
Bloominger, Nathaniel F., Rochester, Ill. Cultivator.	444,986	Jan. 20	1633	419	54	335
Bloomsfield, John H. (See Gregg, John A., assignor.)						
Blount, Eugene I., Cambridge, assignor to Blount Manufacturing Company, Boston, Mass. Door check and closer.	458,357	Aug. 25	2341	571	56	998
Blount, John G., Everett, Mass. Speed-controlling device.	453,033	May 26	2568	649	55	1087
Blount Manufacturing Company. (See Blount, Eugene I., assignor.)						
Blow, Walter G. (See Darling, Blow, and Darling.)						
Blue, Charles E., Wellsburg, W. Va. Inkstand.	446,591	Feb. 17	1775	438	54	877
Blue, Charles G., Pleasant Hill, Mo. Buckle.	453,541	June 2	569	145	55	1255
Blue, John, assignor of one-half to J. M. McCormick, Laurinburg, N. C. Stalk-cutter.	461,309	Oct. 13	1184	301	57	237
Blum, Christian G., Collinsville, Ill. Device for use in brazing and coating stock-bells.	441,288	Jan. 6	468	127	54	97
Blum, Joseph, Chicago, Ill. Dumping-wagon.	450,822	Apr. 21	1829	444	55	371
Blum, Samuel. (See Trouard, Alcide F., assignor.)						
Blumie, Charles A., and D. Lanum, Colfax, Ind. Steam-engine.	447,292	Mar. 3	12	4, 5	54	1120
Blumer, Mathias, Shelby, Wis. Vegetable cutter and slicer.	461,731	Oct. 20	1928	477	57	383
Blundstone, Benjamin. (See Moseley and Blundstone.)						
Blundstone, Benjamin, assignor to Mechanical Fabric Company, Providence, R. I. Wheel-tire.	458,142	Aug. 18	1972	511	56	922
Blythe, Edward F., assignor of one-half to W. S. Hassall, Philadelphia, Pa. Toy.	453,034	May 26	2569	650	55	1088
Boal, Stanhope, Piqua, Ohio. Base-burner stove.	462,617	Nov. 3	623	157	57	671
Boals, Frank L., Mansfield, Ohio. Windrower.	458,093	Aug. 18	1902	495	56	910
Board, James L. (See Clapp, James H., assignor.)						
Board, James L. (See Clapp and Emery, assignors.)						
Boardman, Anson P., Watertown, Wis. Polishing-machine.	445,030	Jan. 20	1688	434	54	346
Boas, Moritz, St. Hyacinthe, Canada. Circular-knitting machine.	453,059	May 26	2612	660	55	1096
Boaz, William B., assignor of one-half to F. & L. Kahn & Brothers, Hamilton, Ohio. Trimming-machine.	456,879	July 28	2546	668	56	508
Bobbitt, Benjamin F., Dyer, Tenn. Apparatus for making baskets.	463,714	Nov. 24	2398	{ 628 629 }	{ 57 57 }	1039
Bobbs, Andrew J., Marion, Ind. Suspenders.	453,074	May 26	2641	666	55	1101
Bobo, Patrick J., Decatur, Ind. Chromatic-printing device.	461,792	Oct. 20	2033	501	57	402
Bochner Verein für Bergbau und Gussstahl-Fabrikation. (See Grimme, Johannes, assignor.)						
Rock, Henry F., Seester, Ill. Hub-attaching device for vehicle-axles.	444,517	Jan. 13	847	220	54	177
Rock, William A., Chicago, Ill. Switch-stand.	447,424	Mar. 3	245	62	54	1163
Bockfinger, Philip L., et al. (See Kennedy, George A., assignor.)						
Bockmühl, Ernst, and W. Karthaus, Barmen-Rittershausen, Germany. Machine for the manufacture of paper bars.	461,732	Oct. 20	1931	{ 478 479 }	{ 57 57 }	383
Boden, James S., et al. (See Gordon, Minthorne T., assignor.)						
Bodenhamer, Levi I., Kernersville, N. C. Medicine-case.	444,216	Jan. 6	383	95	54	76
Bodenstein, Antoinette, Staatsburg, N. Y. Bedroom-pail.	461,255	Oct. 13	1102	281	57	220
Bodenstein, Henry, Staatsburg, N. Y. Ice cutter or plow.	449,516	Mar. 31	3661	{ 919 920 }	{ 54 54 }	1847
Bodenstein, Henry, Staatsburg, N. Y. Cutter for ice-plows.	449,517	Mar. 31	3662	920	54	1847
Bodfish, William H., Medford, assignor of one-half to J. M. Williams, Salem, Mass. Antirattler for thill-couplings.	460,549	Oct. 6	4	1	57	3

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Bodge, John W., assignor to O. W. Norton, Chicago, and E. Norton, Maywood, Ill. Drawing sheet metal	460,550	Oct. 6	5	2	57	3
Bodge, John W., assignor to O. W. Norton, Chicago, and E. Norton, Maywood, Ill. Die for drawing sheet metal	460,551	Oct. 6	7	2	57	3
Bodge, William, Brooklyn, N. Y. Centrifugal machine	459,197	Sept. 8	1024	250	56	1271
Bodie, Charlie H. (See Meany and Bodie.)						
Bodle, Alexander T., Luzerne, Pa. Brake for vehicles	461,414	Oct. 20	1370	347	57	279
Bodley, Alfred G., and J. F. Beelman, Plymouth, Ohio. Life and property saving derail-ing-frog	444,039	Jan. 6	93	24	54	21
Boecher, Robert H. (See Jahr and Boecher.)						
Boeck, Charles H., Jackson, Mich. Oil-stove	453,853	June 9	1037	271	55	1353
Boecker, Charles, New York, N. Y. Cutting-pliers	456,352	July 21	1658	438	56	334
Boecker, Martin, Friedenshütte, near Morgenroth, Germany. Gas-heating device for steam-boilers	445,420	Jan. 27	2290	594	54	473
Boehmen, Adolph, assignor to Rockford Mitten and Hosiery Company, Rockford, Ill. Knitting fabrics	454,795	June 23	2454	631	55	1638
Boehmen, Adolph, Rockford, Ill., assignor to Rockford Mitten and Hosiery Company. Stop-motion for knitting-machines	455,699	July 7	647	171	56	125
Boehringer, John G. and J. A., Buffalo, N. Y. Printer's press-guide	447,293	Mar. 3	15	5	54	1121
Boehringer, Joseph A. (See Boehringer, John G. and J. A.)						
Boermann, George, Brooklyn, N. Y. Cash register and indicator	456,133	July 21	1397	{ 344 345 346 }	56	268
Boening, Ernest. (See Sandh, August, assignor.)						
Boening, Ernest, assignor of one-half to A. Sandh, Yonkers, N. Y. Electric stop mechanism	458,278	Aug. 25	2219	544	56	975
Boes, James S., Clifton Forge, Va. Cut-out valve for gage-cocks	465,091	Dec. 15	1719	437	57	1482
Boessel, Jacob. (See Broadhead, William H., assignor.)						
Boesselager, Otto J. B., Mount Angel, Ore. Propeller for vessels	449,996	Apr. 7	523	130	55	101
Boessen, William J., Orange, N. J. Lamp-shade	466,153	Dec. 29	3453	853	57	1833
Boettcher, Adolph, South Stillwater, Minn. Construction of chimneys	456,109	July 14	1270	334	56	251
Bofinger, William H. (See Carleton, Thomas L., assignor.)						
Bofinger, William H. (See Tannenber, August O., assignor.)						
Bogardus, Charles A., Syracuse, N. Y. Electric belt	455,680	July 7	613	161	56	119
Bogart, Henry W. (See Butler, William J., assignor.)						
Bogert, Charles J., Brooklyn, assignor to J. L. Mott Iron Works, New York, N. Y. Tie molding or binder for tile-walls	463,851	Nov. 24	2597	675	57	1077
Bogert, John L., Flushing, N. Y. Lathe	444,544	Jan. 13	889	{ 231 232 }	54	185
Boggs, Charles. (See Curtis and Boggs.)						
Boggs, Taylor. (See Enfrekin, Boggs, and Gartner.)						
Boggs, Thomas. (See McClure and Boggs.)						
Boggs, William L., et al. (See Grantland, John W., assignor.)						
Bogue & Mills Manufacturing Company. (See Mills, Mortimer B., assignor.)						
Bohannon, Jenetta V., Washington, D. C. Cigarette-machine	456,644	July 28	2146	569	56	435
Bohlinger, Alfred P., et al. (See Brown, Lewis A., assignor.)						
Bohlinger, Alfred P., St. Louis, Mo. Basket-hammer	446,578	Feb. 17	1756	432	54	873
Bohls Cigarette Machine Company. (See Bohls, Henry, assignor.)						
Bohls, Henry, San Francisco, Cal., assignor to Bohls Cigarette Machine Company, Lynch-burg, Va. Cigarette-machine	445,036	Jan. 20	1696	{ 436 437 }	54	347
Böhm, Ludwig K., New York, N. Y. Incandescent-lamp filament	464,719	Dec. 8	1110	275	57	1355
Bohm, William D., London, England. Apparatus for separating gold and silver from ore	464,672	Dec. 8	1022	256	57	1340
Bohmann, Henry P. (See Weishan, Jaster, and Bohmann.)						
Bohmann, Joseph, Chicago, Ill. Tuning-peg for violins	464,912	Dec. 8	1384	349	57	1408
Böhme, Rudolf, Berlin, Germany. Brick	457,982	Aug. 18	1740	457	56	877
Bohn, John J. (See Martin and Bohn.)						
Bohn, Louis H. (See Prather and Bohn.)						
Bohn, René, Ludwigshafen-on-the-Rhine, assignor to Badische Anilin und Soda Fabrik, Mannheim, Germany. Dyeing with gallacetophenone	452,210	May 12	1239		55	816
Bohne, Hattie C., assignor of one half to Bohne Knitting Works, Jacksonville, Ill. Knit garment	445,945	Feb. 3	700	171	54	650
Bohne Knitting Works. (See Bohne, Hattie C., assignor.)						
Bohner, Joseph E., assignor to Wallace & Sons, Ansonia, Conn. Suspension-lamp fixture	454,420	June 16	1867	488	55	1520
Bohner, Joseph E., assignor to Wallace & Sons, Ansonia, Conn. Lamp-fixture	450,880	July 28	2547	668	56	508
Bohner, Joseph E., assignor to Wallace & Sons, Ansonia, Conn. Lamp-burner	456,881	July 28	2548	669	56	508
Bohner, Joseph E., assignor to Wallace & Sons, Ansonia, Conn. Lamp	461,811	Oct. 27	2072	511	57	418
Boies, Henry M., Scranton, Pa. Car-wheel	453,876	June 9	1071	280	55	1359
Boies Steel Wheel Company. (See Pearson, William A., assignor.)						
Boishevalier, Abel de, Düsseldorf, Germany. Machine for polishing glass	460,941	Oct. 13	628	162	57	129
Boland, Frank P., Providence, R. I. Automatic stock-feeder	455,504	July 7	321	82	56	64
Boland, James, Lancaster, Mass. Snow-plow	465,235	Dec. 15	1949	497	57	1525
Bolander, Howard R. (See McDonald, Theodore R., assignor.)						
Bold, William M., assignor, by mesne assignments, to W. T. Wells and C. M. Hurst, Decatur, Ill. Machine for forming zigzags	456,533	July 21	1964	517	56	391
Boldt, Ludwig, Berlin, Germany. Inkstand	458,011	Aug. 18	1786	466	56	885
Boler, William G. (See Kent, Boler, and Kent.)						
Boles, Warren H., Syracuse, assignor of one-half to G. E. Waldron and J. H. Reynolds, Troy, N. Y. Electric heater	465,423	Dec. 15	2257	{ 579 580 }	57	1583
Boll, George W., Mount Hope, and L. M. Reed, Patterson, Kans. Feed-trough	456,213	July 21	1434	380	56	291
Bollenbacher, Martin C., Bloomington, Ind. Table-operating mechanism for lathes	449,461	Mar. 31	3581	902	54	1830
Boller, Conrad, San Francisco, Cal. Folding bed	452,503	May 19	1722	433	55	914
Bolles, Frank G., Washington, D. C. Threading-rod for underground conduits	462,648	Nov. 3	669	169	57	680
Bolon, Robert C., Davis City, Iowa. Wire-stretcher	459,033	Sept. 8	763	185	56	1222
Bolt, Joseph, Pottsville, Pa. Automatic railway-gate	457,247	Aug. 4	498	132	56	626
Bolt, Reuben J., assignor to F. E. Holliday, Boston, Mass. Blasting-plug	456,978	Aug. 4	80	21	56	550
Boite, Frank H., Milwaukee, Wis. Type-writing machine	452,335	May 12	1445	{ 357 358 }	55	855
Bolte, Frank H., assignor of one-half to P. H. Sercombe, Milwaukee, Wis. Bicycle	447,933	Mar. 10	1089	273	54	1331
Bolte, Frank H., assignor of one-half to P. H. Sercombe, Milwaukee, Wis. Saddle for velocipedes	457,834	Aug. 18	1480	386	56	828
Bolte, Frank H., assignor of one-half to P. H. Sercombe, Milwaukee, Wis. Bicycle-saddle	457,835	Aug. 18	1481	386	56	829
Bolte, Frank H., assignor of one-half to P. H. Sercombe, Milwaukee, Wis. Velocipede-saddle	457,964	Aug. 18	1707	447	56	871

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Bolthoff, Henry, Denver, Colo. Steam-actuated cut-off-valve gear	451,719	May 5	418	{101 102 103	55	658
Bolthoff, Henry, Denver, Colo. Steam-engine	451,720	May 5	421	{102 103	55	658
Bolton, Andrew C., Brooklyn, N. Y. Coin-separator	459,673	Sept. 15	1796	451	56	1428
Bolton, James. (See Rontke, Albert, assignor.)						
Bolton, James, Chicago, Ill. Shuttle-operating mechanism for sewing-machines	455,156	June 30	3126	794	55	1772
Bolton, James M., Springfield, Ill. Roll-paper holder and cutter	448,113	Mar. 10	1362	349	54	1385
Boiton, R. B., <i>et al.</i> (See Marshall, John W., assignor.)						
Bolton, Samuel S., assignor of one-half to C. A. Ohlson, Big Rapids, Mich. Means for sink- ing Artesian or tubular wells	454,451	June 23	1912	499	55	1537
Bolnes, Alfred R. (See Bothwell, William T., assignor.)						
Bonar & Co., R. E. (See Bonar, Ronald E., assignor.)						
Bonar, Ronald E., assignor to R. E. Bonar & Co., New York, N. Y. Cap	460,499	Sept. 29	3065	769	56	1683
Bonbrake, Lewis S., Waynesburg, Ohio. Oil-can	446,809	Feb. 17	2110	525	54	944
Bond, Charles W., Ripleyville, Ky. Band-cutter and feeder	445,668	Feb. 3	242	66	54	559
Bond, Edwin H. (See Duryea, Charles E., assignor.)						
Bond, Eli, Anderson, Ind. House-door letter-box	452,953	May 26	2442	616	55	1063
Bond, Elijah J., assignor to C. W. Kennard and W. H. A. Maupin, Baltimore, Md. Toy or game	446,054	Feb. 10	894	217	54	693
Bond, Frank C., Port Jervis, N. Y. Dust-guard for locomotive-cab windows	458,939	Sept. 1	610	150	56	1184
Bond, Fred W., <i>et al.</i> (See Pfouts, Leroy S., assignor.)						
Bond, Joseph, Buffalo, N. Y. Radiator	452,828	May 26	2231	560	55	1023
Bond, Lester L. (See McCray, Thomas H., assignor.)						
Bond, Nathan O., Fairfax Court-House, Va., assignor of one-half to F. W. Pratt, Washing- ton, D. C. Tide and wave power apparatus	446,422	Feb. 17	1518	374	54	826
Bond, Orville D., <i>et al.</i> (See Jackman, Stephen E., assignor.)						
Bond, William G., New York, N. Y. Atomizer for bakers' ovens	462,964	Nov. 10	1189	308	57	790
Bondonneau, Victor C. A. M., Paris, France. Apparatus for the saccharification of amyla- ceous matter	457,104	Aug. 4	265	69	56	584
Bone, John A., <i>et al.</i> (See Kunkle, Kenton C., assignor.)						
Bonfoey, Clarence P., Rockfall, Conn. Hook	453,877	June 9	1072	280	55	1359
Bongartz, Joseph, Aachen, assignor to Farberwerke, vormals Meister, Lucius & Brünig, Hochst-on-the-Main, Germany. Guaiacol ether	453,035	May 26	2570		55	1088
Bonham, Andrew F. and A. G., Seven Mile Ford, Va. Hand and foot churn-power	450,790	July 28	2395	630	56	481
Bonham, Angelina G. (See Bonham, Andrew F. and A. G.)						
Bonham, Walter R., St. Paul, Minn. Hair-clipper	458,040	Sept. 1	611	150	56	1184
Bonker, George V., Boston, Mass. Internal bottle-stopper	465,915	Dec. 29	3051	781	57	1756
Bonn, Barbara J., New York, N. Y. Umbrella-holder	452,253	May 12	1309	327	55	830
Bonnaffon, Albert L., assignor of one-half to J. G. Lindsay, Philadelphia, Pa. Fence	465,916	Dec. 29	3052	782	57	1756
Bonneau, Frank S. G., Worcester, Mass. Hitching device	455,031	June 30	2908	739	55	1730
Bonnelli, Elliott M., and J. S. Lambing, Corry, Pa. Bed-bottom	457,041	Aug. 4	162	40	56	564
Bonner, Alfred, Paulding, Ohio. Hub-boring machine	444,810	Jan. 20	1300	338	54	272
Bonner, Joseph C., assignor of one-half to J. Ames, Jr., Toledo, Ohio. Invoice-blank	465,336	Dec. 15	2123	544	57	1556
Bonner, Julius, New York, N. Y. Forming blanks for rings	453,102	May 26	2601	778	55	1111
Bonner, Julius, New York, N. Y. Interchangeable-initial ring	464,808	Dec. 8	1242	310	57	1381
Bonner, Julius, New York, N. Y. Interchangeable-initial ring	464,809	Dec. 8	1242	310	57	1381
Bonner, Julius, New York, N. Y. Top setting for jewelry	464,810	Dec. 8	1243	311	57	1381
Bonner, Julius, and I. Eisler, New York, N. Y. Ear-ring	464,811	Dec. 8	1244	311	57	1381
Bonnet, Jean M. G., Paris, France, assignor of two-thirds to F. M. Sallinger and J. Bern- heim, Chicago, Ill. Recovering tin from waste tin-plate	459,034	Sept. 8	764	186	56	1222
Bonnette, Thomas C., Bay City, Mich. Lawn-sprinkler	461,415	Oct. 20	1371	347	57	279
Bonneville, Amable B. (See Krottnauer, Paul, assignor.)						
Bonneville, Amable B., Allentown, Pa. Cooling apparatus for calcined material	455,491	July 7	302	77	56	61
Bonner, Charles A., New Bedford, Mass. Shoe-upper	465,236	Dec. 15	1950	497	57	1526
Bonsall, William P., Toronto, Canada. Addressing-machine	449,032	Mar. 24	2850	725	54	1687
Bonta, Arthur K., Hoboken, N. J. Commutator-turning device	459,572	Sept. 15	1623	407	56	1396
Bonta, James W., Wayne, Pa. Apparatus for rolling plate or sheet glass	462,528	Nov. 3	481	{117 118 119	57	643
Bonta, James W., Wayne, Pa. Rolling plate or sheet glass	462,529	Nov. 3	484	{118 119	57	643
Bontecou, Daniel, administrator. (See Bleiss, William, assignor.)						
Bonwick, William P., assignor to himself, L. N. Loob, and M. Lumley, London, England. Bottle-stopper	450,479	Apr. 14	1266	309	55	248
Bonwill, William G. A., Philadelphia, Pa. Hand-piece for dental or surgical engines	449,401	Mar. 31	3473	875	54	1810
Bookser, Rudolph C., Buffalo, N. Y. Tuning-peg for violins	444,972	Jan. 20	1612	412	54	330
Bookser, Rudolph C., Buffalo, N. Y. Retaining device for tuning-pegs	448,872	Mar. 24	2616	657	54	1641
Bookwalter, Francis M. (See Bookwalter, John W. and F. M.)						
Bookwalter, Francis M., Springfield, Ohio. Water-wheel	445,844	Feb. 3	549	134	54	619
Bookwalter, Francis M., Springfield, Ohio. Water-wheel	447,294	Mar. 3	15	5	54	1121
Bookwalter, Francis M., Springfield, Ohio. Water-wheel	452,829	May 26	2232	560	55	1023
Bookwalter, Francis M., assignor to James Leffel & Company, Springfield, Ohio. Water- wheel	465,812	Dec. 22	2870	735	57	1712
Bookwalter, Francis M., assignor to James Leffel & Company, Springfield, Ohio. Water- wheel	465,813	Dec. 22	2872	735	57	1712
Bookwalter, Frank M., Springfield, Ohio. Water-wheel	445,845	Feb. 3	551	134	54	619
Bookwalter, Frank M., Springfield, Ohio. Water-wheel	451,259	Apr. 22	2525	622	55	514
Bookwalter, John W. and F. M., assignors to James Leffel & Company, Springfield, Ohio. Water-wheel	461,565	Oct. 20	1667	408	57	334
Boomer, George B., Mount Pleasant, N. Y. Constructing levees	452,989	May 26	2501	638	55	1074
Boone, Thomas R., Rochester, N. Y. Show-rack	451,911	May 12	727	183	55	723
Boore, Lewis, Buffalo, N. Y. Gas regulator or governor	454,706	June 23	2323	597	55	1613
Booth, Albert A., Odell, N. D. Band-cutter and feeder	458,885	Sept. 1	533	130	56	1167
Booth, Albert C., assignor of one-half to W. P. Ward, Cedar Rapids, Iowa. Telegraph- repeater	451,449	May 5	5	2	55	580
Booth, Alfred. (See Lanterback, Edward G., assignor.)						
Booth, Byron, East Liverpool, Ohio. Decorating pottery-ware	452,254	May 12	1310		55	830
Booth, Charles P. (See Snellenburg and Booth.)						
Booth, Charles P., Camden, N. J., assignor of one-half to S. Snellenburg, Philadelphia, Pa. Registering toy bank	454,839	June 30	2540	654	55	1659
Booth, Charles P., Camden, N. J., assignor of one-half to S. Snellenburg, Philadelphia, Pa. Coin-controlled pocket receptacle	465,814	Dec. 22	2874	736	57	1713
Booth, Chris. S., Camp Point, Ill., assignor to L. C. Smith, Syracuse, N. Y. Type-writ- ing machine	457,757	Aug. 11	1359	351	56	799

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Booth, George, Toronto, Canada. Bath-tub	458,995	Sept. 8	698	171	56	1209
Booth, James, Halifax, England. Machine for producing knitted pile fabrics	447,226	Feb. 24	2845	705	54	1089
Booth, James, Taunton, Mass. Machine for the manufacture of window-frames	457,698	Aug. 11	1250	323	56	775
Booth, Oscar, Creston, Iowa. Hand-piece for dental engines	462,530	Nov. 3	486	120	57	644
Booth, Robert. (See Baker and Booth.)						
Booth, William S., Detroit, Mich. Lathe attachment	457,907	Aug. 18	1609	420	56	851
Boothe, John H., Hollister, Cal. Tug-hook	458,761	Sept. 1	321	78	56	1127
Boothroyd, Samuel, Amesbury, Mass. Wrench	456,265	July 21	1523	404	56	308
Borden, Albert F. (See Kase and Borden.)						
Borden, Jefferson S., Valley Centre, Cal. Table	444,191	Jan. 6	349	85	54	70
Borgfeldt & Co., George. (See Miklas, Alois, assignor.)						
Borgmann, Otto, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Orange dye	454,840	June 30	2542	.....	55	1660
Boring, Frank M., assignor of one-half to E. F. Cooper, Dayton, Ohio. Harness-pad	449,198	Mar. 31	3116	786	54	1746
Boris, Pierre J., Boston, Mass. Indicator for cars	444,040	Jan. 6	94	24	54	22
Bork, William H. (See Bouvier, Louis P., assignor.)						
Bornmann, Hermann, Philadelphia, Pa. Sinuous pleasure-railway and toboggan-slide	450,609	Apr. 21	1457	358	55	294
Bornmann, Hermann, Philadelphia, Pa. Pleasure-railway	450,658	Apr. 21	1575	378	55	324
Bornmann, Hermann, Philadelphia, Pa. Car or vehicle for pleasure-railways, toboggan-slides, &c.	450,659	Apr. 21	1576	379	55	324
Bornmann, Hermann, Philadelphia, Pa. Sinuous pleasure-railway	450,660	Apr. 21	1579	379	55	325
Bornmann, Hermann, Philadelphia, Pa. Gripping mechanism for cars or vehicles, &c.	450,661	Apr. 21	1582	380	55	325
Bornmann, Hermann, assignor to J. W. Douglass, Philadelphia, Pa. Apparatus for coating or saturating and finishing roofing fabrics	448,873	Mar. 24	2617	658	54	1641
Bornmann, Hermann, assignor to J. W. Douglass, Philadelphia, Pa. Apparatus for making silica-coated or other shingles	455,271	June 30	3307	837	55	1807
Bornmann, Hermann, assignor to J. W. Douglass, Philadelphia, Pa. Shingle	455,272	June 30	3312	838	55	1807
Born, Henry, Cleveland, Ohio. Range or stove	459,436	Sept. 15	1409	352	56	1356
Born, Henry, Cleveland, Ohio. Coffee-urn faucet attachment	464,081	Dec. 1	130	32	57	1162
Bornarth, Daniel M., St. Paul, Minn. Valve-gear	457,932	Aug. 18	1659	434	56	862
Bornemann, Fred., San Francisco, Cal. Child's folding carriage	450,362	Apr. 14	1080	266	55	213
Bornholdt, Adolph, assignor of one-third to J. Glatz, Brooklyn, N. Y. Vacuum-pump	446,960	Feb. 24	2372	590	54	1001
Bornot, André F., Philadelphia, Pa. Machine for finishing blankets, &c.	444,688	Jan. 13	1106	286	54	226
Borresen, Helge A., Ellsworth, Wis. Clasp	460,304	Sept. 29	2770	690	56	1629
Borrett, Joseph H., assignor to W. Clark, London, England. Means for preventing horses from slipping	460,459	Sept. 29	2996	750	56	1671
Borrmann, Theodore F., St. Louis, Mo. Machine for laying in the strands of wire cables	458,672	Sept. 1	195	46	56	1102
Borsch, Henry. (See Halbe, Oscar J., assignor.)						
Borsch, John L., Philadelphia, Pa. Spectacle-frame	463,312	Nov. 17	1736	454	57	904
Borst, Jacob, Brooklyn, N. Y. Washing apparatus	461,125	Oct. 13	881	229	57	177
Bortner, George, <i>et al.</i> (See Kanfelt, John E., assignor.)						
Borton, Christina P., Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Manufacture of sewed garments	456,467	July 21	1858	491	56	371
Borton, Stockton, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Manufacture of sewed garments	456,468	July 21	1860	491	56	371
Borton, Stockton, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Preparing ribbed bands for attachment to articles made from knit goods	456,469	July 21	1861	491	56	371
Borton, Stockton, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Manufacture of articles from cut knit fabrics	456,470	July 21	1862	491	56	371
Boruff, Daniel C., Bedford, Ind. Type-writing machine	444,119	Jan. 6	222	54	54	46
Bosart, Timothy L., assignor to Acorn Steam Boiler and Heating Company, Indianapolis, Ind. Adjustable stove-back	445,421	Jan. 27	2231	594	54	474
Bosch, Andreas, Prairie du Chien, and F. Bosch, Merrill, Wis. Pruning implement	459,989	Sept. 22	2278	572	56	1527
Bosch, Frederick. (See Bosch, Andreas and F.)						
Bosch, John A., Maryville, Mo. Car-coupling	465,554	Dec. 22	2488	635	57	1637
Boss, Ella M. (See Boss, Fred E., assignor.)						
Boss, Fred E., assignor to E. M. Boss, New York, N. Y. Holder for washers, &c.	444,328	Jan. 6	541	140	54	108
Bosson, George C., Jr. (See Morgan and Bosson.)						
Bostick, Maria M., Washington, D. C. Combined chair and sewing-machine top	454,251	June 16	1599	421	55	1470
Boston Cash Indicator and Recorder Company. (See Webster, Jerome J., assignor.)						
Boston Cash Indicator and Recorder Company. (See Webster and Drew, assignors.)						
Boston Cash Register Company. (See Webster and Hyde, assignors.)						
Boston Electric Register Company. (See Nenert, Charles A., assignor.)						
Boston Lasting Machine Company. (See Nye and Copeland, assignors.)						
Boston Sanitary Specialty Co. (See Dearborn, Gilbert K., assignor.)						
Boston Sanitary Specialty Company. (See Folger and Dearborn, assignors.)						
Boston Type Foundry. (See McFarland, Edwin C., assignor.)						
Boston Welt Machine Company. (See Ober, William Y., assignor.)						
Boston, William G., David City, Nebr. Washing-machine	454,842	June 30	2545	654	55	1660
Boston Wringer Company. (See Bunnham, Arthur M., assignor.)						
Bostwick, Arthur J., Ean Claire, Wis. Logging-road tool	465,448	Dec. 22	2299	590	57	1602
Bostwick, Frederick. (See Dela Mar, Joseph, assignor.)						
Bostwick Metal Lath Company. (See Bostwick, Walter W., assignor.)						
Bostwick Metal Lath Company. (See Stone, Harley A., assignor.)						
Bostwick, Walter W., assignor to Bostwick Metal Lath Company, New York, N. Y. Metal lathing	459,625	Sept. 15	1725	432	56	1414
Bostwick, William D. (See Kunkle, Erastus B., assignor.)						
Bostwick, William S., <i>et al.</i> (See Ellis, Josiah W., assignor.)						
Boswell, David A. (See Boswell, George G. F., assignor.)						
Boswell, George G. F., assignor of one-half to D. A. Boswell, Indianapolis, Ind. Fifth-wheel scale	460,107	Sept. 29	2463	616	56	1569
Boswell, George G. F., assignor of one-fifth to F. B. Davenport, Indianapolis, Ind. Car-scale	460,521	Sept. 29	3108	777	56	1694
Bosworth, Benjamin M., <i>et al.</i> (See Bosworth, Martin L., assignor.)						
Bosworth, Martin L., assignor of one-fifth to J. Waterman, B. B. Martin, and B. M. Bosworth, Warren, R. I. Dental mallet	465,337	Dec. 15	2124	544	57	1557
Bosworth, John, Battle Creek, Mich. Fly-frightener	447,755	Mar. 10	775	192	54	1272
Bothe, Herman H., St. Louis, Mo. Vehicle	463,936	Nov. 24	2742	711	57	1103
Bothwell, William T., Jersey City, N. J. Air-brake	456,247	July 21	1497	397	56	303
Bothwell, William T., Jersey City, N. J., assignor of one-half to A. R. Boluss, Norwood, Ohio. Car-brake	444,145	Jan. 6	277	66	54	57

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Bothwell, William T., Jersey City, N. J., assignor of one-half to A. R. Boluss, Norwood, Ohio. Automatic pneumatic brake.....	444,146	Jan. 6	278	66	54	57
Botsford, Frederick G., Cleveland, Ohio. Cattle-guard for railways.....	462,649	Nov. 3	670	169	57	680
Bott, Arthur, Albany, N. Y. Albumenized paper.....	463,326	Nov. 17	1759	.....	57	908
Bott, Joseph E., Eyam, county of Derby, England. Manufacture of ordnance, &c.....	463,324	Nov. 17	1595	.....	57	877
Bott, Joseph E., Eyam, England. Self-propelling projectile.....	466,056	Dec. 29	3305	844	57	1805
Bottle Seal Company. (See Painter, William, assignor.)						
Bottlers' Specialty Company. (See La Casse and Wile, assignors.)						
Bottom, Turner D., Hoosick, N. Y. Asymmetrical electrical resistance.....	445,687	Feb. 3	285	75	54	568
Bottom, Turner D., Hoosick, N. Y. Incandescent electric lamp.....	445,688	Feb. 3	287	76	54	569
Bottom, Turner D., Hoosick, N. Y. Electro-chemical transformer.....	458,652	Sept. 1	167	39	56	1097
Bottom, Turner D., Hoosick, N. Y. Incandescent-lamp cut-out.....	458,653	Sept. 1	169	39	56	1097
Bottom, Turner D., New York, assignor to J. B. Tibbits, Hoosick, N. Y. Cut-out for incandescent lamps.....	445,686	Feb. 3	284	75	54	568
Bottom, Turner D., New York, assignor to J. B. Tibbits, Hoosick, N. Y. Cut-out for incandescent lamps.....	450,926	Apr. 21	1978	485	55	400
Botsford, Russell, Cleveland, Ohio. Steam-boiler.....	445,689	Feb. 3	288	76	54	569
Botsford, Russell, Cleveland, Ohio. Hot-water circulation apparatus for heating purposes.....	452,504	May 19	1723	434	55	914
Botsford, Russell, Cleveland, Ohio. System of hot-water circulation.....	452,505	May 19	1724	434	55	915
Bottum, Margaret A., <i>et al.</i> (See Daly, James W., assignor.)						
Bouchard, John, assignor of one-half to J. O. Armour, Chicago, Ill. Switch for overhead tracks.....	459,437	Sept. 15	1409	352	56	1356
Boucher, Joseph L., E. H. Brault, and R. Filteau, West Superior, Wis. Diving-suit.....	463,477	Nov. 17	1998	{ 522 523 }	57	955
Boucher, Thomas. (See Krassin and Boucher.)						
Bondreau, Leon, assignor to Overman Wheel Company, Boston, Mass. Velocipede.....	463,825	Nov. 24	2549	664	57	1068
Boughan, James A., Brooklyn, N. Y. Screen.....	447,934	Mar. 10	1090	274	54	1331
Boult, Alfred J., London, England. Needle employed in the manufacture of felted fabrics.....	461,602	Oct. 20	1722	{ 421 422 }	57	344
Boulter, William E., administrator. (See Rudolph, Ernst B.)						
Boulton, Harold E., <i>et al.</i> (See Gabbett, Edmond R., assignor.)						
Boulton, Samuel B., <i>et al.</i> (See Gabbett, Edmond R., assignor.)						
Bourdil, François F., Paris, France. Liquid atomizer or pulverizer.....	465,013	Dec. 15	1583	404	57	1457
Bourell, George E., and E. M. Harrison, Grant, Nebr., assignors to said Harrisou. Planter.....	457,699	Aug. 11	1251	323	56	775
Bourke, Thomas A., <i>et al.</i> (See Wood, William G., assignor.)						
Bourke, William, Brooklyn, N. Y. Manufacture of collar-buttons.....	453,253	June 2	115	31	55	1170
Bourne, Edward, Allegheny, Pa. Gas-stove.....	448,747	Mar. 24	2424	606	54	1605
Bourne, Jane, assignor of one-half to A. M. De Bord, Silver Cliff, Colo. Stocking, &c.....	455,700	July 7	648	171	56	125
Bourne, John E., Somerville, Ohio. Fruit-bud protector.....	461,204	Oct. 13	1023	259	57	203
Bourne, John R., Rochester, N. Y. Stencil.....	451,105	Apr. 28	2256	559	55	463
Bourne, Theodore F. (See Moss and Bourne.)						
Bourne, Theodore F., Clifton, N. Y. Type-writing machine.....	446,850	Feb. 24	2180	{ 543 544 }	54	967
Bourque, William J., <i>et al.</i> (See Roche, Francis J., assignor.)						
Bourquin, Ferdinand, St. Imier, Switzerland. Stop-watch.....	458,348	Aug. 25	2329	569	56	996
Bourquin, Gustave, assignor to H. Muhr's Sons, Philadelphia, Pa. Apparatus for shaping and ornamenting watch-case centers.....	454,707	June 23	2324	597	55	1613
Bouton, De Witt C., Ithaca, N. Y. Sleigh.....	462,684	Nov. 10	742	192	57	702
Bouton Foundry Company. (See Giebermann, Rudolph, assignor.)						
Bouvier, Louis P., Toronto, Canada, assignor of one-half to W. H. Bork, Buffalo, N. Y. Envelope-machine.....	453,436	June 2	415	108	55	1225
Bow, Isaac S. (See Scott, Absalom T., assignor.)						
Bowden, Junius A., Detroit, Mich. Filter-manipulating valve.....	450,133	Apr. 14	720	180	55	146
Bowden, Junius A., Detroit, Mich. Filter.....	455,526	July 7	362	92	56	71
Bowden, Junius A., Detroit, Mich. Filtering apparatus.....	455,527	July 7	363	92, 93	56	71
Bowden, Junius A., Detroit, Mich. Filter.....	456,374	July 21	1710	453	56	343
Bowden, Russell, Marblehead, Mass. Dinking-block support.....	461,165	Oct. 13	943	244	57	188
Bowe, Arthur E. (See Pease, Roger S., assignor.)						
Bowe, John C., <i>et al.</i> (See Walker, Moses F., assignor.)						
Bowen, David R., assignor to Farrel Foundry and Machine Company, Ansonia, Conn. Cane-mill.....	457,395	Aug. 11	790	203	56	687
Bowen, Ephraim N., Buffalo, N. Y. Bicycle-stand.....	445,710	Feb. 3	321	85	54	575
Bowen, Ernest S., Auburn, N. Y. Governor for steam-engines.....	447,839	Feb. 24	2514	624	54	1027
Bowen, James H., Philadelphia, Pa. Toy money-box.....	450,833	Apr. 21	1845	449	55	373
Bowen, John L. (See Barwis, Thomas S., assignor.)						
Bowen, John W., Jacksonville, Ill. Folding chair.....	445,156	Jan. 27	1903	491	54	396
Bowen, Newton M. (See Constant, Boston S., assignor.)						
Bowen, James H., Philadelphia, Pa. Cigar-cutter.....	462,074	Oct. 27	2472	613	57	496
Bower, Byron B., Bainbridge, Ga. Harness.....	448,292	Mar. 17	1688	427	54	1458
Bower, Charles C., Birmingham, Ala., and A. B. Evans, Thompsonstown, Pa. Wagon-jack.....	447,756	Mar. 10	777	193	54	1272
Bower, Elijah C., Milwaukee, Wis. Cell-case.....	456,353	July 21	1660	439	56	334
Bower, Giles W., assignor of two-thirds to S. H. Nutting and E. Parsons, Enfield, Conn. Time-signal for closets.....	453,878	June 9	1073	280	55	1360
Bower, Samuel W., <i>et al.</i> (See Dare, William H., assignor.)						
Bowers, Edward L. (See Groat and Bowers.)						
Bowers, Howard F., South Framingham, Mass. Jogging device for printing-presses.....	457,248	Aug. 4	503	133	56	627
Bowers, John W., Saco, Me. Fluid-pressure brake.....	450,610	Apr. 21	1459	{ 358 359 }	55	294
Bowers, William F., San Francisco, Cal. Swinging hose-reel.....	449,033	Mar. 24	2852	726	54	1688
Bowers, Winfield T. (See Anness and Ring, assignors.)						
Bowes, John E., and L. H. Harris, Aurora, Ill. Guard-rail or foot-guard for railway-frogs.....	444,518	Jan. 13	849	221	54	177
Bowie, John F., and E. Stolpe, Washington, D. C. Bracelet.....	452,830	May 26	2233	561	55	1023
Bowker, William, West Medford, and R. Williams, Boston, Mass. Loom.....	448,202	Mar. 17	1516	{ 386 387 388 389 }	54	1426
Bowler, Giles, Toronto, assignor of one-half to G. A. Thompson, Etobicoke, Canada. Floor-jack.....	454,635	June 23	2321	572	55	1592
Bowles, David, assignor of one-half to W. P. Hastings, Maryville, Tenn. Car-coupling.....	447,522	Mar. 3	422	103	54	1197
Bowles, Frank L., Detroit, Mich. Corset clasp.....	448,631	Mar. 24	2236	561	54	1569
Bowles, John, Washington, D. C. Saw.....	445,239	Jan. 27	2025	522	54	420
Bowley, Arthur S. (See Archer and Bowley.)						
Bowman, Archibald G., Jolietville, assignor of one-half to P. S. Woods, Lebanon, Ind. Clothes-pin.....	447,504	Mar. 3	395	96	54	1192
Bowman, Bion H., assignor of one-half to A. H. Gaarder, Newark, N. J. Printing-press grip.....	452,745	May 19	2108	530	55	989

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Bowman, Charles H., Alliance, Ohio. Hay-tedder.....	446,728	Feb. 17	1987	496	54	918
Bowman, Charles H., Springborough, Pa. Necktie-fastening.....	462,232	Nov. 3	11	3	57	554
Bowman, Ezra F. (See Fishor, Jacob, assignor.)						
Bowman, Frederick E., assignor to Millor Knoblock Wagon Company, South Bend, Ind. Nozzle for street-sprinklers.....	464,550	Dec. 8	836	206	57	1303
Bowman, Frederick V., Huntington, Conn. Collapsible paper box.....	448,813	Mar. 24	2520	631	54	1623
Bowman, George A., St. Louis, Mo. Tooth-brush.....	461,661	Oct. 20	1821	450	57	362
Bowman, George W., Denver, Colo. Cable railway.....	445,157	Jan. 27	1904	491	54	396
Bowman, Jacob C. (See Bartl and Bowman.)						
Bowman, John E., Boonsborough, Md. Rein-holder.....	463,135	Nov. 17	1458	378	57	852
Bowman, Solon M., Timberville, Va. Attachment for corn-planters.....	460,739	Oct. 6	334	82	57	66
Bowring, John C., and A. Newcomb, Melbourne, Victoria. Hydraulic propulsion of vessels.....	454,151	June 16	1459	382	55	1442
Bowsher, Columbus A., Champaign, Ill. Tellurian.....	457,487	Aug. 11	941	239	56	714
Bowyer, Egbert J. B., Lakeland, Fla. Collar or cuff protector.....	454,201	June 16	1532	403	55	1456
Bowyer, Jerome T., Winfield, W. Va. Sewing-machine.....	454,708	June 23	2325	598	55	1613
Box Machinery Company. (See Campbell, Henry, assignor.)						
Boyce, Thomas, New York, N. Y. Bunsen gas-burner.....	462,685	Nov. 10	743	193	57	702
Boyd, Arthur A., Auburn, N. Y. Draft attachment for hames.....	463,029	Nov. 10	1279	331	57	808
Boyd, James A., et al. (See White, Bruce C., assignor.)						
Boyd, James M., Galashiels, Scotland, assignor to Overman Wheel Company, Chicopee Falls, Mass. Brake for velocipedes.....	452,593	May 19	1860	468	55	941
Boyd, John, Glasgow, Scotland. Automatic stopping mechanism for doubling, twisting, and winding machines.....	451,194	Apr. 28	2425	599	55	494
Boyd, John, Glasgow, Scotland. Cop-building mechanism for spinning and analogous machines.....	453,352	June 2	271	72	55	1199
Boyd, Joseph H. (See Ansley and Boyd.)						
Boyd, Nathaniel W., Carlisle, Pa. Automatic interchangeable switch and signal stand.....	456,645	July 28	2149	570	56	436
Boyd, Nathaniel W., Carlisle, Pa. Spring-rail railway-frog.....	462,296	Nov. 3	121	31	57	574
Boyd, Nathaniel W., Carlisle, Pa. Railway-frog.....	462,297	Nov. 3	124	31	57	575
Boyd, Samuel M. (See Dubbs, Jesse A., assignor.)						
Boyd, Thomas C., Chicago, Ill. Self-adjusting frost-protector for ventilating-pipes.....	449,199	Mar. 31	3117	787	54	1746
Boyd, Thomas R. (See Hardy and Boyd.)						
Boyd, William, et al. (See Wright, Samuel, assignor.)						
Boyd, William S., Washington, D. C. Type-cleaner for type-writing machines.....	445,519	Jan. 27	2430	634	54	499
Boyd, William S., Washington, D. C. Pencil-sharpener.....	449,812	Apr. 7	256	65	55	51
Boyden Brake Company of Baltimore City. (See Boyden, George A., assignor.)						
Boyden, Byron E., Bridgeport, Conn. Banjo.....	449,200	Mar. 31	3118	787	54	1746
Boyden, George A., assignor to Boyden Brake Company, Baltimore, Md. Engineer's brake-valve.....	445,132	Jan. 20	1850	479	54	377
Boyden, George A., assignor to Boyden Brake Company of Baltimore City, Baltimore, Md. Pneumatic signal for railway-trains.....	450,053	Apr. 7	596	149	55	115
Boyer, Arthur G. (See Hull and Boyer.)						
Boyer, Cuyler B., assignor of one-half to P. M. Sullivan, East St. Louis, Ill. Combined automatic money-changer and cash-register.....	462,889	Nov. 10	1066	276	57	766
Boyer, Henry C., Philadelphia, Pa. Register for camera roll-holders.....	460,672	Oct. 6	219	56	57	45
Boyer, Israel D., assignor to National Cash Register Company, Dayton, Ohio. Cash register and indicator.....	457,249	Aug. 4	504	133	56	627
Boyer, James A., Seneca, Kans. Guard for horse-rake teeth.....	456,214	July 21	1435	360	56	291
Boyer, John M., Cincinnati, Ohio. Cleaning boilers.....	444,481	Jan. 13	783		54	164
Boyer, Joseph. (See Brown, Harvey E., assignor.)						
Boyer, Joseph, St. Louis, Mo. Marker for recording-machines.....	456,668	July 28	2187	579	56	443
Boyer, Joseph, assignor to Boyer Railway Speed Recorder Company, St. Louis, Mo. Speed-indicator.....	460,460	Sept. 29	2997	751	56	1671
Boyer, Léon, assignor to E. F. Herwig, New Orleans, La. Apparatus for the treatment of cane-juice by filtration.....	453,735	June 9	876	227	55	1322
Boyer Railway Speed Recorder Company. (See Boyer, Joseph, assignor.)						
Boyer, William W. (See Emous, Charles, assignor.)						
Boykin, Frank, Jr. (See Yeates, Jesse J., Jr., assignor.)						
Boyle, Charles W. (See Dutcher and Boyle.)						
Boyle & Co., John. (See Silleck, Charles D., assignor.)						
Boyle, Homer L., Grand Rapids, Mich. Mail-bag.....	459,864	Sept. 22	2096	526	56	1494
Boyle, James C., Omaha, Nebr. Means for piling up tierces, barrels, &c.....	458,515	Aug. 25	2600	633	56	1047
Boyle, James E., deceased, Brooklyn, N. Y.; J. E. Boyle, Jr., administrator. Pneumatic flushing-tank.....	461,213	Oct. 13	1036	263	57	205
Boynton Bicycle Railway Company. (See Boynton, Eben M., assignor.)						
Boynton, Caroline H. (See Boynton, John F., assignor.)						
Boynton, Eben M., West Newbury, Mass. Electric locomotive.....	446,821	Feb. 17	2129	528	54	948
Boynton, Eben M., West Newbury, Mass., assignor to Boynton Bicycle Railway Company. Electric-conductor support.....	457,105	Aug. 4	267	69, 70	56	584
Boynton, Eben M., West Newbury, Mass., assignor to Boynton Bicycle Railway Company. Electric conductor.....	457,106	Aug. 4	268	70	56	584
Boynton, Edward S., Brooklyn, assignor to McLaughlin Brothers, New York, N. Y. Game apparatus.....	450,395	Apr. 14	1140	279	55	224
Boynton, Frank G., Grafton, N. D. Scalper and grader.....	462,618	Nov. 3	624	157	57	671
Boynton, John F., Syracuse, N. Y., assignor to C. H. Boynton. Cement.....	448,632	Mar. 24	2237		54	1569
Boynton, Nathaniel A., New York, N. Y. Fire-place heater.....	444,987	Jan. 20	1634	419	54	335
Boyrer, William, New York, N. Y. Bail-lock.....	445,493	Jan. 27	2390	622	54	492
Bozarth, Stephen P., Wimberley, Tex. Fumigator.....	464,419	Dec. 1	636	157	57	1255
Bracher, Thomas W. (See Fefel, Henry H., assignor.)						
Brack, Julius L. V., Unionville, Mich. Cutter-bar.....	465,317	Dec. 15	2085	532	57	1550
Brack, Julius L. V., Unionville, Mich., and C. P. Coy, Fort Wayne, Ind. Cutter-bar.....	459,740	Sept. 22	1904	480	56	1456
Brackett, John W., Boston, Mass., and H. N. Moore, Savannah, Ga. Repeating-action for pianos.....	444,041	Jan. 6	95	24	54	22
Bradbury, Enoch. (See Bliss, Bradbury, and Gibson.)						
Bradburn, Joseph A., and J. D. Pennock, Syracuse, N. Y. Obtaining alumina from bauxite.....	461,416	Oct. 20	1373		57	280
Bradbury, Richard, and D. Winterbottom, Oldham, England. Measuring-vessel for filling ink-wells.....	455,734	July 14	724	190	56	148
Braddock, Warren L., Boston, assignor to C. O. Fosgate, Cambridge, Mass. Garment-supporter.....	466,089	Dec. 29	3351	856	57	1814
Bradeen, Joshua E. L., South Berwick, Me., assignor of one-half to D. Cummings & Co., Boston, Mass. Tacking-machine.....	451,995	May 12	854	218	55	748
Braden, John, Franklin, Pa. Sand-pump.....	449,663	Apr. 7	28	6	55	7

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Braden, John R., and C. H. Elliott, Belmond, Iowa. Wheel-harrow.....	454,843	June 30	2546	655	55	1661
Braden, Richard L. (See Devore, James K., assignor.)						
Braden, Samuel H., Lippincott, Pa. Fence.....	454,677	June 23	2280	585	55	1603
Braden, Thomas, Des Moines, Iowa. Alarm attachment for door-knobs.....	445,218	Jan. 27	2000	515	54	414
Bradford, Charles K., <i>et al.</i> (See Stiles, George A., assignor.)						
Bradford, Charles K., Lynnfield, Mass. Sole-edge-inking device.....	445,158	Jan. 27	1905	492	54	396
Bradford, Charles K., Lynnfield, assignor to Bradford Co., Boston, Mass. Knife-sharpener.....	450,215	Apr. 14	839	210	55	169
Bradford, Charles K., Lynnfield, assignor to Bradford Co., Boston, Mass. Knife-sharpener.....	457,965	Aug. 18	1708	447	56	871
Bradford Co. (See Bradford, Charles K., assignor.)						
Bradford, Harry P., Little Rock, Ark. Drill for electric railways.....	464,673	Dec. 8	1024	257	57	1340
Bradford, Horace C., Milwaukee, Wis. Tapping and thread-cutting machine.....	465,827	Dec. 29	2898	743 744	57	1727
Bradley, Alfred H., Whiteville, La. Grass-burner for railway-tracks.....	451,818	Apr. 28	2452	606	55	499
Bradley, Andrew J., St. Louis, Mo. Alphabetical printing-stamp.....	453,609	June 9	679	176	55	1284
Bradley, Arthur W., Jr., Newport, Ky. Ellipsograph.....	465,689	Dec. 22	2696	687	57	1676
Bradley, Charles S. (See Wheeler and Bradley.)						
Bradley, Charles S., Avon, N. Y. Method of and apparatus for converting the electrical energy of alternating currents into mechanical motion.....	460,046	Sept. 22	2365	592	56	1543
Bradley, Charles S., Yonkers, N. Y. Synchronous telegraph.....	463,852	Nov. 24	2458	676	57	1077
Bradley, Charles S., Yonkers, N. Y. Obtaining metals from their ores or compounds by electrolysis.....	464,933	Dec. 8	1409	355	57	1413
Bradley, Charles S., Yonkers, N. Y., assignor to Fort Wayne Electric Light Company, Fort Wayne, Ind. Phase-indicator for alternating electric currents.....	444,791	Jan. 13	1266	328	54	255
Bradley, Christopher C., <i>et al.</i> (See Bunnell, Francis A., assignor.)						
Bradley Company, Milton. (See Richards, Erwin H., assignor.)						
Bradley, Edward. (See Crane, Thomas S., assignor.)						
Bradley, Edward E., assignor to Atwood Machine Company, Stonington, Conn. Reeling-machine.....	449,360	Mar. 31	3402	855 856	54	1795
Bradley, Edward J., and R. C. Altpeter, Chicago, Ill. Can-soldering machine.....	461,092	Oct. 13	842	217	57	169
Bradley, Edward T. (See Blake and Bradley.)						
Bradley, Ernest W., assignor to Taplin, Rice & Company, Akron, Ohio. Cutter and reamer grinder.....	444,875	Jan. 20	1444	375	54	298
Bradley, Everal, Ovid Centre, N. Y. Snap-hook.....	462,907	Nov. 10	1097	285	57	772
Bradley, Franklin B. (See Smith, Henry V., assignor.)						
Bradley, Harry M., Canon City, Colo. Load-binder.....	453,897	June 9	1097	287	55	1364
Bradley & Hubbard Manufacturing Company. (See Janch, Joseph, assignor.)						
Bradley, Isaac, Hartford, Conn. Manufacture of cartridge heads and cases.....	457,767	Aug. 18	1375	355	56	809
Bradley, James, Massillon, Ohio. Treating filaments for incandescent electric lamps.....	464,005	Dec. 1	6	2	57	1138
Bradley, James E., assignor of one-half to M. W. Robinson, Jackson, Mich. Tuck-marking device for sewing machines.....	451,450	May 5	7	2	55	580
Bradley, John, Philadelphia, Pa. Latch.....	446,766	Feb. 17	2044	509	54	930
Bradley, John, North Chelmsford, Mass. Stripping mechanism for knitting-machines.....	448,007	Mar. 10	1216	309	54	1356
Bradley Manufacturing Company, David. (See Packer, John F., assignor.)						
Bradley, Parker R., Boston, Mass., assignor to Pantasote Leather Company, Passaic, N. J. Composition fabric.....	453,689	June 9	807	206	55	1309
Bradley, William, Fort Wayne, Ind. Conduit for electric railways.....	455,447	July 7	237	61	56	48
Bradley, William H., Mingo Junction, Ohio. Furnace.....	456,134	July 21	1315	346	56	263
Bradley, William W. (See Packer and Bradley.)						
Bradley, William W., and W. N. Packer, Canton, Ohio. Electric hand-setting mechanism for clocks.....	444,482	Jan. 13	784	204	54	164
Bradshaw, George, Mattoon, Ill. Garment-supporter.....	455,302	July 7	11	3	56	5
Bradshaw, George H., Knoxville, Tenn. Handle.....	455,652	July 7	573	149	56	111
Bradshaw, Harry. (See Crane and Bradshaw.)						
Bradshaw, Joseph H., assignor of one-fourth to J. Wiley, North Yakima, Wash. Harness.....	450,134	Apr. 14	722	181	55	147
Bradt, Charles E., <i>et al.</i> (See Pringle, Eugene, assignor.)						
Brady, Frank, <i>et al.</i> (See McGlinchey, Charles E., assignor.)						
Brady, Frank, Chicago, Ill., assignor, by mesne assignments, to American Railway Tri-cycle Company, Portland, Me. Railway-velocipede.....	447,935	Mar. 10	1092	274	54	1332
Brady, Frank, Denver, Colo., assignor, by mesne assignments, to American Railway Tri-cycle Company, Portland, Me. Railway-velocipede.....	462,908	Nov. 10	1098	285 286	57	773
Brady, Lewis D., Marceline, Mo. Washing-machine.....	458,941	Sept. 1	613	151	56	1184
Brady, Terrence E. (See Ferry, Frank P., assignor.)						
Brady, Thomas H., New Britain, Conn. Adjustable support for electric wires.....	453,036	May 26	2571	650	55	1088
Brady, Thomas H., New Britain, Conn. Means for suspending electric lamps.....	463,773	Nov. 24	2476	646	57	1054
Braedel, John, Cleveland, Ohio. Combined furniture and extension-bedstead.....	446,729	Feb. 17	1989	496	54	918
Brage, Robert, Aston, England. Stop-watch.....	448,930	Mar. 24	2695	680	54	1657
Bradwood, William, Mount Vernon, N. Y. Index-cutter.....	453,103	May 26	2691	678	55	1111
Brain, Robert D., and C. T. Shafer, Springfield, Ohio; said Shafer assignor to said Brain. Apparatus for applying strips to newspapers or other periodicals.....	444,167	Jan. 6	310	75	54	63
Brainard, Curtis B., assignor of one-half to Joliet Steel Bale Tie Company, Joliet, Ill. Machine for making bale-ties.....	463,593	Nov. 17	2189	577 578	57	991
Brainard, Howard. (See Fritz, John L., assignor.)						
Brainard, Julius D., St. Paul, Minn. Button.....	458,094	Aug. 18	1903	495	56	910
Brainard, Leverett, Hartford, Conn. Calendar.....	451,800	May 5	543	134	55	682
Braithwaite, John, Canton, N. Y. Wood-working machine.....	459,809	Sept. 22	2002	504	56	1474
Brakensiek, Henry G., Ellington, Ill. Track-cleaner.....	458,215	Aug. 25	2090	541	56	951
Brakensiek, Henry G., Quincy, Ill. Onion-top cutter.....	461,491	Oct. 20	1548	380	57	312
Bramm, Henry, Jersey City, N. J. Comb-apron.....	453,575	June 2	620	158	55	1264
Brampton, Charles H., Birmingham, England. Driving-chain.....	449,997	Apr. 7	524	130	55	101
Bramwell, William C., Hyde Park, Mass. Mechanism for supplying fibrous material to pickers, &c.....	464,551	Dec. 8	837	206	57	1303
Branan, Joel H., Asylum, Ga. Cotton-planter.....	453,610	June 9	680	177	55	1284
Branan, John T. (See Baker, George W., assignor.)						
Branch, James R., Richmond, Va. Electric insulator.....	445,969	Feb. 10	742	182	54	667
Branch, James R., Richmond, Va. Electric contact-brush.....	453,104	May 26	2692	679	55	1112
Brand, James B., Milwaukee, Wis. Cut-off valve.....	458,311	Aug. 25	2266	553	56	983
Brand, James B., and P. L. Sheridan, Milwaukee, Wis. Sliding-door lock.....	466,113	Dec. 29	3380	863	57	1819
Brand, Michael, Chicago, Ill. Filter.....	458,312	Aug. 25	2267	554	56	983
Brand, Moses H., <i>et al.</i> (See Jacobs, Henry E., assignor.)						
Brand, Silas H., Chicago, Ill. Steel-wire broom or brush.....	454,607	June 23	2176	562	55	1584
Brandenburg, Anthony A., Denver, Colo. Combined sleeping and day coach.....	444,741	Jan. 13	1197	310 311	54	243
Brandenburg, Anthony A., Denver, Colo. Step-ladder.....	448,190	Mar. 10	1485	379	54	1410

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Brandner, Johann, Regensburg, Germany. Coupling.....	463,301	Nov. 17	1717	{ 447 448 449 }	57	901
Brandon, Charles T., Toronto, Canada. Loose-pulley oiler.....	460,908	Oct. 6	583	148	57	114
Brandt, Albert R., Chicago, Ill. Fire-escape.....	454,325	June 16	1713	447	55	1492
Brandt, Christopher C. F., Muscatine, Iowa. Enameling photographs and other prints.....	444,084	Jan. 6	165	54	35	
Brandt, Clinton H., assignor of one-half to W. S. Reed, Altenwald, Pa. Machine for converting motion.....	455,961	July 14	1065	279	56	211
Brandt, Thorwald, Baden, Germany. Buckle for securing straps.....	448,496	Mar. 17	2010	503	54	1518
Branham, Robert, Belton, Tex. Pump.....	461,417	Oct. 20	1374	348	57	280
Brankney, John, Lemont, Ill. Machine for tapping mains.....	447,001	Feb. 24	2436	606	54	1013
Brannen, D. J. (See Thorp, Thomas J., assignor.)						
Branner, Bernard, New York, N. Y. Album.....	463,030	Nov. 10	1280	332	57	808
Branning, Joseph, Owatonna, Minn. Thrashing-machine.....	461,864	Oct. 27	2150	530	57	434
Bransford, Samuel W., Opelika, Ala. Track-gage.....	458,012	Aug. 18	1787	467	56	885
Bransgrove, Charles, Luhn, Mich. Plane-iron-sharpening apparatus.....	451,801	May 5	544	134	55	682
Branson, Edwin R., Philadelphia, Pa. Circular-knitting machine.....	445,690	Feb. 3	288	76	54	569
Branson, Edwin R., Philadelphia, Pa. Needle-cylinder for knitting-machines.....	454,163	June 16	1475	387	55	1445
Branson, James L. (See Cook, Stephen S., assignor.)						
Branth, Johan F. S. (See Sprague and Branth.)						
Brantingham, Allen C., Winfield, Kans. Grain-scourer.....	452,434	May 19	1608	{ 399 400 }	55	895
Brasell, Hugh B., Reynolds, Miss. Constructing roads.....	458,842	Sept. 1	457	110	56	1153
Brasnahan, Patrick, L. Richardson, and A. Fritsch, Snisun City, Cal. Nut-lock.....	466,014	Dec. 29	3234	824	57	1790
Brastow, Solomon D., San Francisco, and J. E. Rice, Newcastle, Cal. Balance-scale.....	455,588	July 7	473	123	56	92
Bräu, Alphons, Amberg, Germany. Coin-operated vending-machine.....	457,700	Aug. 11	1253	{ 323 324 }	56	776
Bräuer & Co., Oscar. (See Engelhardt, Richard H., assignor.)						
Brault, Emery H. (See Boucher, Brault, and Filtean.)						
Braun, Henry F., Denison, Tex. Car-brake.....	464,847	Dec. 8	1290	323	57	1391
Braun, John, and H. Deck, assignors to J. Braun & Sons, Philadelphia, Pa. Lawn-mower.....	456,471	July 21	1863	492	56	371
Braun, John, and H. Deck, assignors to J. Braun & Sons, Philadelphia, Pa. Tongue attachment for lawn-mowers.....	456,472	July 21	1865	492	56	372
Braun, Michael M., Allegheny, Pa. Electric fire-alarm.....	453,723	June 9	860	222	55	1318
Braun, Otto, Berlin, Germany. Power-transmitting device.....	466,114	Dec. 29	3381	864	57	1819
Braun, Paul. (See Stresemann, Gustav, assignor.)						
Braun & Sons, John. (See Braun and Deck, assignors.)						
Brauns, George, Jr. (See Logsdon and Brauns.)						
Bravo, Joseph R. (See Lee, Mart A., assignor.)						
Bray, Austin B., Gloucester, Mass. Branding-iron.....	464,913	Dec. 8	1384	349	57	1408
Bray, Daniel D. (See Sutphen and Bray.)						
Bray, Mellen. (See Bertrand, Joseph E., assignor.)						
Bray, Morris P., New York, N. Y. Dress-stay.....	454,587	June 23	2129	549	55	1577
Bray, Ralph E. (See Blackburn, Bray, and Clayton.)						
Bray, Thomas J., assignor of one-half to Paige Tube Company, Warren, Ohio. Machine for rolling tubes.....	451,912	May 12	728	183	55	723
Bray, Thomas J., assignor of one-half to Paige Tube Company, Warren, Ohio. Tubular pole for electrical railways.....	452,255	May 12	1311	328	55	831
Brayer, Nicholas, assignor to Co-Operative Foundry Company, Rochester, N. Y. Furnace.....	457,250	Aug. 4	507	133	56	628
Brayton, James T., Chicago, Ill., assignor to Geneva Optical Company, of Illinois. Gage for determining the radius of curvature.....	447,276	Feb. 24	2931	729	54	1108
Brayton, James T., Chicago, Ill., assignor to Geneva Optical Company, of Illinois. Gage for determining the radius of curvature.....	464,601	Dec. 8	910	223	57	1318
Brayton, William, Floyd, Iowa. Gate.....	454,026	June 16	1277	332	55	1408
Brazier, John, Hope, Ark. Trestle for scaffolding.....	462,686	Nov. 10	744	193	57	703
Brazelle, Benjamin, St. Louis, Mo. Steam-boiler.....	458,413	Aug. 25	2436	593	56	1016
Brazelle, Benjamin, St. Louis, Mo. Method of and apparatus for supplying motive fluid to engines.....	465,014	Dec. 15	1584	404	57	1457
Brecht, Theodore C. (See Zichtl and Brecht.)						
Breck, Charles H., trustee. (See Smith, Archibald, assignor.)						
Brede, William, and L. A. de la Nux, Paauhau Mill, Hamakua, Hawaii. Auger.....	450,908	Apr. 21	1957	480	55	396
Bredel, Frederick, New York, N. Y. Gas-retort.....	454,514	June 23	2009	521	55	1555
Bredenbergh, Alfred, assignor to G. W. Hill, Brooklyn, N. Y. Shoe-counter machine.....	464,449	Dec. 1	676	{ 165 166 }	57	1263
Bredenbergh, Edward A., Sundsvall, Sweden. Shaft-bearing.....	456,299	July 21	1580	417	56	319
Breeze, Herbert J., Olean, N. Y. Casket-support.....	455,093	June 30	3019	767	55	1752
Bregha, Leopold, Ober Döbling, near Vienna, assignor of one-half to F. Breza, Krems-upon-Danube, Austria-Hungary. Preserving apparatus.....	457,471	Aug. 11	908	232	56	708
Breiding, Henry, Sterling, Ill. Harrow.....	456,329	July 21	1625	430	56	328
Breitenmoser, Joseph, assignor to F. H. Miller, St. Louis, Mo. Velocipede.....	459,336	May 12	1450	358	55	855
Brekke, Peter, Worcester, Mass. Car-coupling.....	453,611	June 9	681	177	55	1284
Brekke, Salve W. (See Sundet and Brekke.)						
Brelsford, George W. (See Ford, Charles S., Sr., assignor.)						
Bremer, Max, New Bedford, Mass. Handle for coffins.....	444,973	Jan. 20	1613	413	54	330
Bremer, Otto A., San Francisco, Cal. Set-trigger.....	446,912	Feb. 24	2306	573	54	989
Brems, Charles. (See Tahash, Charles, assignor.)						
Brennan, John K., et al. (See Bliss, Henry S., assignor.)						
Brennan, William, Brooklyn, N. Y. Smoke-conveyer.....	462,425	Nov. 3	334	82	57	614
Brennan, William J., Coalinga, and C. A. Pitcher, Needles, Cal. Ash-pan and boiler cleaner.....	464,272	Dec. 1	428	102	57	1216
Brenner, Francis X., Philadelphia, Pa. Ice-tongs.....	458,383	Aug. 25	2389	583	56	1007
Brenner, Frederick and J., Cincinnati, Ohio. Stave-bending machine.....	447,295	Mar. 3	16	6	54	1121
Brenner, Frederick and J., Cincinnati, Ohio. Stave-bending machine.....	456,135	July 21	1316	347	56	269
Brenner, John. (See Brenner, Frederick and J.)						
Brent, Henry G., Brunswick, Mo. Bridle.....	444,085	Jan. 6	166	41	54	35
Brent, Nathaniel F., Chicago, Ill. Car-coupling.....	458,307	Aug. 25	2260	552	56	982
Brent, Robert B. (See McDonald and Brent.)						
Bresnahan, Maurice V. (See Heys and Bresnahan.)						
Bresnahan, Timothy A., Boston, Mass. Gage for shoe-soles.....	451,363	Apr. 28	2679	664	55	544
Bresnahan, Timothy A., Boston, Mass. Rotary cutter for boots or shoes.....	452,540	May 19	1780	448	55	925
Bresnan, Peter J., New York, N. Y. Portable table.....	445,159	Jan. 27	1906	492	54	386
Bretherton, Montague J., Port Worth, Tex. Rotary engine.....	460,522	Sept. 29	3110	778	56	1694
Bretney, Eugene, Indianapolis, Ind. Water-purifier.....	453,105	May 26	2693	679	55	1112
Bretney, Eugene, Indianapolis, Ind., assignor, by mesne assignments, to Cockle Separator Manufacturing Company, Milwaukee, Wis. Dust-collector.....	446,507	Feb. 17	1654	404	54	853

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Bretz, Jacob S., Philadelphia, Pa. Wheel.....	457,861	Aug. 18	1530	398	56	838
Bretzfeld, Samuel. (See Leck, Henry, assignor.)						
Breuer, Hynek, assignor of one-half to W. H. Taylor, New Prague, Minn. Printing-press.	457,251	Aug. 4	508	134	56	628
Breul, Richard A., assignor to Bridgeport Chain Company, Bridgeport, Conn. Chain attachment.....	450,807	Apr. 21	1800	437	55	366
Breul, Richard A., assignor to Bridgeport Chain Company, Bridgeport, Conn. Chain attachment.....	455,032	June 30	2909	739	55	1730
Brevig, Knut L. (See Gaarder, Simon L., assignor.)						
Brew, Alexander, Chicago, Ill. Folding stretcher for ambulances.....	456,547	July 28	1987	524	56	404
Brewer, Charles W., Cambridge, assignor of one-half to T. King, Quincy, Mass. Axle-lubricator.....	450,135	Apr. 14	723	181	55	147
Brewer, Charles W., Cambridge, assignor of one-half to T. King, Quincy, Mass. Extension hand-bag.....	465,449	Dec. 22	2300	590	57	1602
Brewer, George O., Shenandoah, Iowa. Harness.....	449,201	Mar. 31	3120	787	54	1747
Brewer, Gilbert T., Hoboken, N. J. Hot-water apparatus for cooking-ranges.....	456,757	July 28	2351	619	56	473
Brewer, Horatio J., New York, N. Y. Electric connection.....	451,364	Apr. 28	2680	664	55	544
Brewer, James H., assignor of one-half to G. H. Ensign, Troy, N. Y. Clothes-line connecting-plate.....	443,987	Jan. 6	1	1	54	3
Brewer, John M., Salem, Ind. Cultivator.....	465,237	Dec. 15	1951	498	57	1526
Brewer, Myron, New Haven, Conn. Pocket-guard and pen and pencil holder.....	457,340	Aug. 11	702	180	56	669
Brewer & Smith Visual Signal Company. (See Wood, Frank B., assignor.)						
Brewer, Wesley S., Cincinnati, Ohio. Gas-compression pump.....	448,874	Mar. 24	2619	658	54	1642
Brewerton, Alfred W., and M. R. Szameit, Chicago, Ill.; said Szameit assignor to said Brewerton. Photograph-album.....	454,844	June 30	2548	655	55	1661
Brewington, H. S. (See Thomas, George W., assignor.)						
Brewington, Henry S., Baltimore, Md. Box-strap.....	451,365	Apr. 28	2681	664	55	544
Brewington, Henry S., Baltimore, Md. Combined cuspidor and toy figure.....	464,273	Dec. 1	430	102	57	1216
Brewster, Francis C., Elizabeth, N. J. Car-brake.....	454,452	June 23	1914	499	55	1537
Brewster, Frank H., Escanaba, Mich. Friction-clutch.....	450,790	Apr. 21	1768	430	55	360
Brewster, Frank H., Escanaba, Mich. Friction-clutch.....	453,350	Nov. 17	1803	471	57	916
Brewster, Joseph W., Cincinnati, Ohio. Medicine-package.....	459,865	Sept. 22	2098	526	56	1494
Brewtnall, Arthur W. (See Brewtnall, Hermann W. and A. W.)						
Brewtnall, Hermann W. and A. W., Didsbury, Manchester, England. Cloth-folding frame.	460,237	Sept. 29	2656	662	56	1607
Breyer, Friedrich, Vienna, Austria-Hungary. Filter, &c.....	444,483	Jan. 13	787	205	54	165
Breza, Franz. (See Bregha, Leopold, assignor.)						
Brice, Alfred I., assignor of one-half to F. M. White, Minneapolis, Minn. Combined umbrella and cane.....	448,203	Mar. 17	1523	390	54	1426
Brice, Edward C., Washington, D. C. Artificial stone.....	449,067	Mar. 24	2905	.....	54	1698
Brice, George A., Titusville, Pa. Road-cart.....	463,478	Nov. 17	1999	523	57	955
Brice, Richard J., assignor of one-half to D. Culhane, Brooklyn, N. Y. Utilizing galvanized waste.....	448,600	Mar. 17	2172	.....	54	1549
Brickell, Nicholas, Poplar Grove, Ark. Burial apparatus.....	445,875	Feb. 3	594	146	54	628
Brickey, Alfred H., Damascus, Ark. Baling-press.....	461,157	Oct. 13	981	241	57	186
Bricknell, Samuel E., Oregon, Ill. Hame-tug.....	454,515	June 23	2010	521	55	1555
Bricknell, Samuel E., Oregon, Ill. Hame-tug.....	460,229	Sept. 29	2647	660	56	1605
Briden, Samuel J. (See Irish and Briden.)						
Bridge & Beach Manufacturing Company. (See Nellis, Emery D., assignor.)						
Bridgeport Brass Company. (See Stoddard, Samuel G., assignor.)						
Bridgeport Chain Company. (See Breul, Richard A., assignor.)						
Bridgeport Chain Company. (See Cady, Frank P., assignor.)						
Bridger, Edward K. (See Jones and Bridger.)						
Bridges, Frank B., et al. (See Mitchell, James C., assignor.)						
Bridges, W. G. (See Fisk, Joseph M., assignor.)						
Bridges, William J. (See Brown, Henry M., assignor.)						
Bridgman, Henry L., Blue Island, Ill. Ore-sampling machine.....	457,145	Aug. 4	324	83, 84	56	595
Bridgman, Mary E., Penn Yan, N. Y. Brush.....	453,353	June 2	272	72	55	1199
Bridwell, James W., and W. J. Morgan, Hillsborough, Ohio. Spring-seat.....	454,453	June 23	1916	499	55	1538
Brieder, Charles W., Lincoln, Neb. Switch-board for heat-regulating systems.....	445,970	Feb. 10	743	182	54	668
Briesen, Otto von, Dresden, Saxony, Germany. Bridle.....	463,962	Nov. 24	2774	719	57	1111
Briggs, Charles F. (See Britton and Morrow, assignors.)						
Briggs & Co., C. C. (See Stuart, Albert H., assignor.)						
Briggs, Frank, Philadelphia, Pa. Spring-propelled vehicle.....	452,562	May 19	1812	455	55	932
Briggs, Frank, Philadelphia, Pa. Spring-motor for sewing-machines.....	455,468	July 7	266	67	56	53
Briggs, Franz S., New Hampton, Iowa. Baby-carriage.....	444,519	Jan. 13	849	221	54	177
Briggs, George S., assignor to L. A. Weyburn Company, Rockford, Ill. Frame for door or window screens.....	462,197	Oct. 27	2672	669	57	534
Briggs, George T., Windsor, Conn. Electric switching apparatus.....	452,359	May 19	1489	369	55	873
Briggs, Harrison T., South Bend, Ind. Wrench.....	448,114	Mar. 10	1363	349	54	1386
Briggs, Henrick P., North Adams, Mass. Loom-shuttle.....	450,554	Apr. 14	1365	337	55	269
Briggs, Henry, Philadelphia, Pa. Velocipede.....	448,204	Mar. 17	1524	390	54	1427
Briggs, Henry, Philadelphia, Pa., assignor to Goodyear Shoe Machinery Company, Hartford, Conn. Forming chain-stitches.....	461,793	Oct. 20	2034	502	57	403
Briggs, Henry, New York, N. Y., assignor to Goodyear Shoe Machinery Company, Hartford, Conn. Rough-rounding and channeling machine.....	463,967	Nov. 24	2783	722	57	1112
Briggs, Henry, Philadelphia, Pa., assignor to Goodyear Shoe Machinery Company, Hartford, Conn. Rough-rounding and channeling machine.....	463,982	Nov. 24	2811	729	57	1117
Briggs, James E., Cortland, N. Y. Show-rack for windows.....	446,982	Feb. 24	2410	600	54	1008
Briggs, John S., San Buenaventura, Cal. Fruit-stoning machine.....	460,740	Oct. 6	335	82	57	66
Briggs, Morill E. (See Hadaway, John B., assignor.)						
Briggs, Sylvester E., Toronto, Canada. Display-box.....	457,598	Aug. 11	1106	282	56	748
Briggs, William H., Albany, N. Y. Track-sweeper.....	445,219	Jan. 27	2001	515	54	415
Briggs, William H., Springfield, Mass. Type lever and hanger for type-writing machines.	448,875	Mar. 24	2622	658	54	1642
Brigham, Henry M., Brooklyn, N. Y. Coin-holder.....	449,280	Mar. 31	3243	821	54	1770
Brigham, John S., et al. (See Swift, Henry D. and D. W., assignors.)						
Bright, Albert E., Hopedale, Ill. Sliding gate.....	460,711	Oct. 6	292	71	57	57
Bright, Richard A. (See Peck and Bright.)						
Bright, Richard A. (See Preston, William C., assignor.)						
Bright, Richard A., assignor to W. A. Peck, Providence, R. I. Making cigar-bunches.....	451,749	May 5	473	117	55	668
Bright, Richard A., assignor to W. A. Peck, Providence, R. I. Making cigar-bunches.....	451,750	May 5	474	117	55	668
Bright, Richard A., and W. A. Peck, Providence, R. I.; said Bright assignor to said Peck. Flexible roll for cigar-machines.....	445,937	Feb. 3	690	168	54	648
Bright, Richard A., and W. A. Peck, Providence, R. I.; said Bright assignor to said Peck. Roll for cigar-machines.....	451,748	May 5	471	117	55	668

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Bright, Richard A., and W. A. Peck, Providence, R. I.; said Bright assignor to said Peck. Cigar-wrapping machine.	453,050	May 26	2591	{ 655 656 }	55	1092
Bright, Tom F., Detroit, Tex. Car-coupling.	448,497	Mar. 17	2011	503	54	1518
Brightman, Latham H., Cleveland, Ohio. Friction-clutch.	456,534	July 21	1966	518	56	392
Brightman, Latham H., assignor to Brightman Machine Company, Cleveland, Ohio. Shaft-turning machine.	456,882	July 28	2550	669	56	508
Brightman, Latham H., assignor to Brightman Machine Company, Cleveland, Ohio. Machine for straightening round bars.	456,883	July 28	2552	670	56	509
Brightman Machine Company. (See Brightman, Latham H., assignor.)						
Brill, George M., Philadelphia, Pa. Car-brake.	445,307	Jan. 27	2120	549	54	438
Brill, George M., Philadelphia, Pa. Truck for electric motors.	457,599	Aug. 11	1107	{ 282 283 }	56	748
Brill, George M., Philadelphia, Pa. Motor-truck.	458,216	Aug. 25	2092	{ 541 542 }	56	952
Brill, George M., Philadelphia, Pa. Motor-truck for cars.	461,662	Oct. 20	1822	451	57	362
Brill, John A. (See Adams and Brill.)						
Brill, John A., Philadelphia, Pa. Motor-truck for cars.	445,308	Jan. 27	2123	{ 549 550 551 }	54	439
Brill, John A., Philadelphia, Pa. Railway-car.	446,423	Feb. 17	1520	{ 374 375 }	54	826
Brill, John A., Philadelphia, Pa. Folding gate for car-platforms.	457,933	Aug. 18	1660	434	56	862
Brill, John L. (See Brown, Augustus L., assignor.)						
Brinck, Wilhelm, Linden, near Hanover, Germany. Lubricating compound.	444,626	Jan. 13	1005		54	208
Brine, James W., et al. (See Garland, William H., assignor.)						
Brinker, Marion T. (See Brinker, Oliver P. and M. T.)						
Brinker, Oliver P. and M. T., Nebraska, Ohio. Sheaf-gatherer.	450,136	Apr. 14	724	{ 181 182 }	55	147
Brinkerhoff, Jacob, Auburn, N. Y. Ice-tongs.	446,171	Feb. 10	1097	269	54	729
Brinkerhoff, Jacob O., Hackensack, and M. E. Smith, Rutherford, N. J. Electric battery.	453,898	June 9	1098	287	55	1364
Brinkerhoff, Warren M. (See Smith, De Wane B., assignor.)						
Brinkerhoff, Warren M., Auburn, N. Y. Spring-tooth for harrows.	447,936	Mar. 10	1094	274	54	1332
Brinkerhoff, Warren M., Auburn, N. Y. Cultivator.	464,262	Dec. 1	413	98	57	1213
Brinkerhoff, Warren M., A. W. Stevens, and L. D. Swart, Auburn, N. Y. Cultivator.	447,443	Mar. 3	282	71, 72	54	1171
Brinkerhoff, William W., Albany, N. Y. Folding rack.	461,256	Oct. 13	1103	281	57	220
Brinkley, Thomas C., Cleveland, Ohio. Index.	464,629	Dec. 8	953	235	57	1327
Brinkman, Herman M., assignor to Harrow Spring Company, Kalamazoo, Mich. Die for forming bars for cultivator-teeth.	459,357	Sept. 8	1272	314	56	1321
Brinkmann, Albert. (See Naecke and Brinkmann.)						
Brintnall, Thomas M., Chicago, Ill. Safe, vault, &c.	456,690	July 28	2216	587	56	449
Brinton, Henry, Philadelphia, Pa. Loop-holding mechanism for knitting-machines.	445,494	Jan. 27	2391	622	54	492
Briton, Adolph E., Brooklyn, N. Y. Tap-wrench.	464,659	Dec. 8	1002	250	57	1336
Brisbin, George N., and J. Copper, Spencer, Iowa. Working body churn.	448,205	Mar. 17	1526	390	54	1427
Briscoe, Henry S., Morrisonville, Ill. Horseshoe.	445,000	Jan. 20	1655	424	54	339
Bristol Brass and Clock Company. (See Brown and Taplin, assignors.)						
Bristol Brass and Clock Company. (See Hollister, Elisha S., assignor.)						
Bristol Brass and Clock Company. (See Luce, Bartlett P., assignor.)						
Bristol, Edmund R., assignor of one-half to E. C. Gran, Jordan, Minn. Device for removing broken piston-rods from wells.	450,502	Apr. 14	1300	318	55	256
Bristoll, Lars, Bromley, England. Portable electric lamp.	458,279	Aug. 25	2221	544	56	975
Bristol, William H., Hoboken, N. J. Pen.	459,830	Sept. 22	2044	513	56	1483
Bristow, Walter, Ottawa, Canada. Wheel-spoke.	451,206	Apr. 28	2439	603	55	496
British Hosiery Company. (See Wood, Edwin, assignor.)						
Britt, Edward, assignor of one-half to O. Hill, Davenport, Iowa. System for conducting electric currents.	456,979	Aug. 4	86	21	56	550
Britt, Patrick F., Milwaukee, Wis. Flushing device for water-closets, &c.	449,728	Apr. 7	131	33	55	27
Brittain, James A., assignor to himself, A. P. Willy, and M. H. Stacy, Leadville, Colo. Rubber shoe.	461,310	Oct. 13	1185	302	57	237
Brittain, John A., New York, N. Y. Berth-safe.	456,010	July 14	1137	298	56	224
Brittin, A. B., et al. (See Crosby, George W., assignor.)						
Britton, Gabriel C., Boonton, N. J. Bread-pan.	464,420	Dec. 1	637	157	57	1255
Britton, George G., and I. Levi, Anniston, Ala. Drip-cup.	457,458	Aug. 11	883	228	56	704
Britton, Henry M. (See Cook and Britton.)						
Britton, Joseph A. (See Norton, Frederick, assignor.)						
Britton, Louis H., and H. W. Morrow, assignors of one-third to C. F. Briggs, New Lisbon, Ohio. Oil-can.	460,080	Sept. 22	2417	605	56	1553
Broach, George, assignor to Acme Railway Switch Company, East St. Louis, Ill. Automatic lock-gear railway-switch.	466,205	Dec. 29	3673	939	57	1874
Broad, Thomas, et al. (See Anderson, Lee, assignor.)						
Broadbent, Eli W. (See Krauer, Martin, assignor.)						
Broadbent, William J., assignor of one-half to W. H. King, Belleville, N. J. Toy musical instrument.	456,884	July 28	2554	671	56	509
Broadbooks, Peter, Batavia, N. Y. Thill-coupling.	448,707	Mar. 24	2353	589	54	1592
Broadhead, William H., assignor of two-thirds to J. Boesel, Cleveland, Ohio. Door-check.	445,462	Jan. 27	2345	609	54	483
Brock, Arthur W., assignor of one-half to I. N. Shepherd, Shepherd, Mich. Heating-drum.	458,013	Aug. 18	1788	467	56	885
Brock, Benjamin. (See Yates and Brock.)						
Brock, Fenelon B., Washington, D. C., assignor of one-half to G. W. Bishop, Baltimore, Md. Automatic railway-train arrester.	463,983	Nov. 24	2814	730	57	1118
Brock, Levi M., Mackinaw, Ill. Tramway.	459,879	Sept. 22	2121	533	56	1498
Brock, Matthias, Boston, Mass., assignor to McKay & Copeland Lasting Machine Company, Portland, Me. Lasting-machine.	444,792	Jan. 13	1267	328	54	255
Brock, Matthias, Boston, Mass., assignor to McKay & Copeland Lasting Machine Company, Portland, Me. Tack-strip-making machine.	453,141	May 26	2750	693	55	1122
Brock, Thomas, assignor of one-half to O. L. Snyder, Kansas City, Mo., and A. C. Van Dusen, Leavenworth, Kans. Combined portable water-tower and fire-escape.	463,327	Nov. 17	1760	{ 460 461 }	57	908
Brock, William E., Plainfield, N. J. Veneered lumber.	444,042	Jan. 6	96	25	54	22
Brock, William E., Plainfield, N. J. Mold for veneering lumber.	445,605	Feb. 3	137	35, 36	54	538
Brockington, Charles N. (See Cox and Brockington.)						
Brockman, Augustus H., Minneapolis, Minn. Wheat-heater.	445,536	Feb. 3	10	3	54	513
Brockmann, Ernst, Ellrich, Germany. Show-stand.	444,575	Jan. 13	942	244	54	195
Brockmann, Ernst, Ellrich, Germany. Show-stand.	447,658	Mar. 3	618	153	54	1235
Brockmeyer, Friedrich W., assignor to Sargent & Company, New Haven, Conn. Pliers.	444,207	Jan. 6	370	92	54	74
Brockton Last Company. (See Locke, Cary, and Kimball, assignors.)						
Brockway, Orvil W., Chicago, Ill. Railway-gate.	459,212	Sept. 8	1050	225	56	1276

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Brodeesser, Peter H., Milwaukee, Wis. Elevator and carrier.	451,260	Apr. 28	2526	623	55	514
Brodeesser, Peter H., Milwaukee, Wis. Elevator.	462,233	Nov. 3	13	3	57	555
Brodie, George W. (See Clark and Brodie.)						
Brodix, Charles R., Washington, D. C. Book	456,717	July 28	2265	600	56	458
Brodnax, John T., New Orleans, La. Suspender-buckle	455,157	June 30	3128	794	55	1772
Brodnax, John T., New Orleans, La. Suspenders	455,158	June 30	3129	795	55	1772
Brodnax, John T., New Orleans, La. Pattern for vests and shirts	455,159	June 30	3130	795	55	1773
Broenen, John. (See Specht and Broenen.)						
Brohard, Joseph M., Clarksburg, W. Va. Signaling apparatus for railways	445,918	Feb. 3	656	160	54	641
Brohard, Joseph M., Clarksburg, W. Va. Sash-holder	448,498	Mar. 17	2012	503	54	1519
Broichgans, Stephan, Milwaukee, Wis. Fire indicator and extinguishing system	446,200	Feb. 10	1140	279	54	737
Brokaw, Norman H., Kaukauna, Wis. Apparatus for making bisulphites	456,791	July 28	2395	631	56	481
Brolaski, Joseph B., St. Louis, Mo. Fire-proof vessel	451,802	May 5	545	135	55	682
Brolaski, Joseph B., St. Louis, Mo. Water-tight compartment for vessels	451,803	May 5	546	135	55	682
Brolaski, Joseph B., St. Louis, Mo. Steam steering apparatus	451,866	May 5	636	159	55	699
Brolaski, Joseph B., St. Louis, Mo. Steamboat smoke-stack	454,326	June 16	1714	447	55	1492
Bromley, William I. (See Dobson and Bromley.)						
Bronder, Gaston A., New York, N. Y. Gas-retort-discharging apparatus	447,022	Feb. 24	2480	617	54	1020
Bronder, Gaston A., New York, N. Y. Steam-engine	452,964	May 26	2460	622	55	1067
Bronner, Edmond D. (See Lamont and Bronner.)						
Brook, Edward, Rashcliffe, Huddersfield, England. Gas-producer	452,256	May 12	1312	328	55	831
Brookbank, James O., Driftwood, Pa. Pencil-sharpener	458,654	Sept. 1	170	39	56	1098
Brookbank, James O., Driftwood, Pa. Fence	458,821	Sept. 1	422	100	56	1146
Brooke, Isaac, Pottstown, Pa. Hitting-box	447,937	Mar. 10	1095	275	54	1332
Brooke, Newton. (See Taylor and Brooke.)						
Brooke, Samuel, Macksville, Kans. Corn-harvester	447,296	Mar. 3	18	6	54	1122
Brooke, William E., assignor to American Saw Company, Trenton, N. J. Saw-tooth	446,810	Feb. 17	2111	525	54	944
Brooke, William M., Brooklyn, assignor to himself, and G. W. Martin, New York, N. Y. Permutation-padlock	465,450	Dec. 22	2301	591	57	1602
Brooker, Albert, Lancaster, Wis. Brick-machine	455,160	June 30	3131	795	55	1773
Brookes, Leonard E., assignor to himself and W. H. Smith, Chicago, Ill. Paper-cutting mechanism for printing-presses	448,806	Mar. 24	2508	628	54	1621
Brookins, Hiram, assignor of one-half to J. Urary, North Manchester, Ind. Spark-arrestor	451,219	Apr. 28	2453	606	55	499
Brooklyn Railway Supply Company. (See Sternoff-Beyer, Otto, assignor.)						
Brooks, Alfred A., et al. (See Herriek, Charles H., assignor.)						
Brooks, Benjamin F. C., assignor of four-thirtieths to J. E. Yowell, A. R. Duncan, B. Lannier, and P. M. Searlight, Nashville, Tenn. Apparatus for transmitting motion	461,399	Oct. 13	1342	338	57	267
Brooks, Byron A., Brooklyn, N. Y. Type-writing machine	454,845	June 30	2548	656	55	1661
Brooks, Byron A., Brooklyn, N. Y. Type-writing machine	463,723	Nov. 24	2410	632	57	1041
Brooks, Byron A., Brooklyn, N. Y. Type-writing machine	463,724	Nov. 24	2413	632	57	1041
Brooks, Byron A., Brooklyn, N. Y., assignor to Philadelphia Typewriter Company, Philadelphia, Pa. Type-writing machine	461,865	Oct. 27	2151	530	57	434
Brooks & Company, E. J. (See Brooks, Edward J., assignor.)						
Brooks, David, Jr., Philadelphia, Pa. Garment-stretcher	455,605	July 7	502	130	56	97
Brooks, David, Jr., Philadelphia, Pa. Electric cable	459,941	Sept. 22	2216	557	56	1516
Brooks, Edgar E., et al. (See Courtright, Edgar, assignor.)						
Brooks, Edward J., East Orange, N. J. Mail-bag	456,397	July 21	1740	459	56	348
Brooks, Edward J., East Orange, N. J., assignor to E. J. Brooks & Company, New York, N. Y. Inking-pad	447,714	Mar. 3	700	175	54	1250
Brooks, Edward J., East Orange, N. J., assignor to E. J. Brooks & Company, New York, N. Y. Post-office hand-stamp	451,887	May 5	668	169	55	706
Brooks, Frank A., San Francisco, Cal. Arm-rest	459,087	Sept. 8	844	204	56	1236
Brooks, Frederick, assignor to T. Middlemore, Birmingham, England. Velocipede-saddle	456,792	July 28	2397	631	56	481
Brooks, Harry S., Elmira, N. Y. Apparatus for printing in colors	444,231	Jan. 6	408	101	54	81
Brooks, Herbert H., et al. (See Herriek, Charles H., assignor.)						
Brooks, James A. (See Aycock, William C. and J. A., assignors.)						
Brooks, J. M., administratrix. (See Brooks, Rhodom M. and W. H.)						
Brooks, James G., et al. (See Hockel, John, assignor.)						
Brooks, James W., trustee. (See Glidden, Charles W., assignor.)						
Brooks, James W., trustee. (See Glidden and Elliott, assignors.)						
Brooks, James W., trustee. (See Winter, Henry W., assignor.)						
Brooks, James W., et al., trustees. (See Goddu, Louis, assignor.)						
Brooks, John, Plainfield, N. J. Registering device for printing-presses	447,536	Mar. 3	444	109	54	1201
Brooks, John, Plainfield, N. J. Inking mechanism for printing-presses	455,385	July 7	140	36	56	31
Brooks, John, Plainfield, N. J. Cylinder printing press	455,386	July 7	142	36, 37	56	31
Brooks, John, Plainfield, N. J. Mechanism for cutting or perforating variable lengths of paper web for printing-presses	456,190	July 21	1399	371	56	285
Brooks, John, Plainfield, N. J. Cutting and feeding mechanism for printing-presses	456,191	July 21	1403	372	56	286
Brooks, John B., et al. (See Courtright, Edgar, assignor.)						
Brooks, John J., assignor of one-half to F. E. Goldsbery, Athens, Ohio. Sad-iron	457,299	Aug. 4	596	156	56	643
Brooks, John W. (See Weaver and Brooks.)						
Brooks, Rhodom M., deceased, (J. M. Brooks administratrix.) and W. H. Brooks, Molena, Ga. Wheeled scoop	463,571	Nov. 17	2146	567	57	983
Brooks, Theodore L., Port Byron, N. Y. Coin-controlled electrical apparatus	456,718	July 28	2266	600	56	458
Brooks, Theodore S., Garrison's, N. Y. Railway tie and chair	466,218	Dec. 29	3549	908	57	1851
Brooks, Thomas W., San Francisco, Cal. Hydrant	444,329	Jan. 6	542	141	54	108
Brooke, Thomas W., Santa, Ala. Cotton-cultivator	459,990	Sept. 22	2280	572	56	1527
Brooks, William, and H. Koch, Bible Grove, Ill. Hub-attaching device	457,042	Aug. 4	163	40	56	564
Brooks, William A., et al. (See Heckel, John, assignor.)						
Brooks, William H. (See Brooks, Rhodom M. and W. H.)						
Brooks, William H., West Point, N. Y. Railway-rail clamp	459,741	Sept. 22	1905	480	56	1456
Brooks, William J., assignor of one-half to W. R. Morris and R. A. Ingram, Oneonta, Ala. Car-coupling	465,154	Dec. 15	1831	465	57	1501
Brooksbank, Matthew H., West Bergen, N. J. Liquid-fuel burner	448,407	Mar. 17	1872	470	54	1493
Broom, Samuel, New York, N. Y. Combined shirt and necktie	458,266	Aug. 25	2193	535	56	970
Broomell, Albert P., York, Pa. Combined cooking and heating range	445,037	Jan. 20	1702	438	54	348

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Broomell, Henry, Philadelphia, Pa. Toy gravity-railway.....	465,238	Dec. 15	1951	498	57	1526
Broomell, Thomas W., assignor to Burton Machine Company, Erie, Pa. Wrist-pin-turning attachment for lathes.....	462,370	Nov. 3	243	59, 60	57	597
Broonett, Joseph, Brooklyn, N. Y. Horseshoe.....	461,733	Oct. 20	1934	479	57	383
Brosius, J. M. (See Bessonette and King, assignors.)						
Brosius Motor Sewing Machine Company. (See Norton, William B., assignor.)						
Brosius Motor Sewing Machine Company. (See Wood, Albert A., assignor.)						
Brosius, Samuel G., Columbus, Ohio. Rotary steam-engine.....	445,038	Jan. 20	1705	438 439	54	348
Brosius, Samuel G., Savannah, Ga. Rotary steam-engine.....	445,039	Jan. 20	1708	439 440	54	349
Brosius, Samuel G., Savannah, Ga. Rotary engine.....	453,612	June 9	684	177 178	55	1285
Brosius, Samuel G., Savannah, Ga. Rotary engine.....	453,613	June 9	688	178 179	55	1286
Brosius, Samuel G., Savannah, Ga. Rotary engine.....	453,614	June 9	693	179	55	1287
Brosius, Samuel G., Savannah, Ga. Rotary engine.....	453,615	June 9	695	179	55	1288
Brosius, Samuel G., Savannah, Ga. Rotary steam-engine.....	463,267	Nov. 17	1668	436	57	891
Brosius, Samuel G., Savannah, Ga. Rotary engine.....	465,519	Dec. 22	2421	618	57	1625
Brousseau, Joseph A., Concordia, Kans. Mop-stick, mop-wringer, and scrubbing-brush holder combined.....	444,043	Jan. 6	97	25	54	22
Brousseau, Noel E., et al. (See Anderson, James J., assignor.)						
Brost, Charles A., assignor of one-third to M. J. Linehan, Lakeville, Minn. Automatic wagon-brake.....	454,608	June 23	2177	562	55	1584
Brotherhood, Rowland, London, England. Trigonometer.....	462,234	Nov. 3	15	3, 4	57	555
Brothers, James H., Utica, N. Y. Spring-bed.....	454,027	June 16	1278	333	55	1408
Brothwell, John G., assignor to Turner & Seymour Manufacturing Company, Torrington, Conn. Pressure-socket for curtain-poles.....	452,965	May 26	2462	622	55	1067
Brott, George F., assignor of one-eighth to L. S. Wells, Washington, D. C. Making shoes.....	448,206	Mar. 17	1526	391	54	1427
Brott, Lucien A., Groton, N. Y. Vacuum-engine.....	448,907	Mar. 24	2665	669 670	54	1651
Brotz, Valentine, Buffalo, N. Y. Sandpapering-machine.....	449,435	Mar. 31	3535	891 892	54	1822
Brough, Thomas J., Baltimore, Md. Corset-fastening.....	447,630	Mar. 3	584	144	54	1227
Brought, Jonathan R., Mojave, Cal. Vehicle-shafts.....	465,690	Dec. 22	2698	687	57	1677
Brous, Lewis F., Philadelphia, Pa., assignor to Dutcher Temple Company, Hopedale, Mass. Loom-temple.....	464,214	Dec. 1	328	80	57	1195
Brouse, Martin N., Billingsville Ind. Watering-trough.....	446,628	Feb. 17	1827	451	54	887
Brousseau, Harry, and G. Patterson, Newbury, Mich. Rotary valve.....	465,917	Dec. 29	3053	782	57	1756
Brower, Bloomfield, New York, N. Y. Dumping apparatus.....	455,505	July 7	322	83	56	64
Brower, Bloomfield, New York, N. Y. Letter-press copying-book.....	464,748	Dec. 8	1150	286	57	1362
Brower, Edwin, and A. M. Stillman, Hartford, Conn. Bicycle oil-cup holder.....	463,093	Nov. 10	1381	357	57	828
Brower, Edwin G., Boston, Mass. Shutter-fastener.....	455,735	July 14	725	190	56	148
Brown, Adna, Springfield, Vt. Cloth-teaseling machine.....	452,161	May 12	1162	294	55	801
Brown, Adolph G., New York, and J. P. Crosby, Flatbush, N. Y. Game-board.....	446,320	Feb. 10	1351	329 330	54	780
Brown, Alexander E., Cleveland, Ohio. Clutch.....	452,162	May 12	1163	294 295	55	801
Brown, Alexander E., Cleveland, Ohio. Driver for lathes or planing-machines.....	453,616	June 9	697	180	55	1288
Brown, Alexander E., Cleveland, Ohio. Driving device.....	453,617	June 9	700	181	55	1289
Brown, Alexander E., Cleveland, Ohio. Device for doubling up the purchase of hoist-ropes.....	465,318	Dec. 15	2086	532	57	1550
Brown, Alexander E., Cleveland, Ohio. Mechanism for doubling up the purchase of hoist-ropes.....	465,775	Dec. 22	2818	723	57	1701
Brown, Alexander E., Cleveland, Ohio. Doubling up the purchase of hoist-ropes.....	466,090	Dec. 29	3352	856	57	1814
Brown, Alexander E., Somerville, Mass. Furniture-caster.....	455,906	July 14	982	256	56	196
Brown, Alexander T., Syracuse, N. Y. Type-writing machine.....	445,350	Jan. 27	2189	567	54	453
Brown, Alexander T., Syracuse, N. Y. Type-writing machine.....	465,451	Dec. 22	2302	591 592	57	1602
Brown, Alfred M., Worcester, Mass. Bevel.....	445,520	Jan. 27	2434	634	54	499
Brown, Alvin M., and D. S. King, Hamilton, Mo. Hame.....	451,366	Apr. 28	2681	664	55	544
Brown, Andrew H., New York, N. Y. Leak-detector for pipes.....	445,495	Jan. 27	2393	622	54	492
Brown, Andrew J., assignor of one-third to F. Campbell, Chicago, Ill. Safety-guard for cars.....	466,115	Dec. 29	3382	864	57	1819
Brown, Arthur F., assignor to Stoddard Manufacturing Company, Dayton, Ohio. Fertilizer attachment for seeding-machines.....	455,469	July 7	268	68	56	54
Brown, Arthur F., assignor to Stoddard Manufacturing Company, Dayton, Ohio. Grain-drill.....	455,470	July 7	270	68, 69	56	54
Brown, Arthur F., and W. R. Knaub, assignors to Stoddard Manufacturing Company, Dayton, Ohio. Tedder.....	465,155	Dec. 15	1832	465 466	57	1502
Brown, Arthur H., Auburn, N. Y. Atomizer.....	454,709	June 23	2328	598	55	1614
Brown, Augustus L., assignor of one-half to J. L. Brill, New York, N. Y. Musical toy.....	446,201	Feb. 10	1142	279	54	737
Brown, Benjamin J., Jr., Brooklyn, N. Y. Cone for forming hat-bodies.....	464,421	Dec. 1	638	157	57	1255
Brown, Benjamin J., Jr., Brooklyn, N. Y. Cone for forming hat-bodies.....	464,422	Dec. 1	638	157	57	1256
Brown, C. Cortland. (See Le Clair, George, assignor.)						
Brown, Charles A. (See Harder, William, assignor.)						
Brown, Charles A., Troy, N. Y. Under-garment.....	465,452	Dec. 22	2308	592	57	1603
Brown, Charles A., Troy, N. Y. Under-garment.....	465,453	Dec. 22	2309	593	57	1604
Brown, Charles D., Ames, Iowa. Gate.....	457,701	Aug. 11	1256	325	56	776
Brown, Charles F., et al. (See Aspinall, James, assignor.)						
Brown, Charles F. (See Young, James A., assignor.)						
Brown, Charles F., trustee. (See Seaver, Augustus, assignor.)						
Brown, Charles F., trustee. (See Seaver and Hamm, assignors.)						
Brown, Charles F., assignor to Royal Machine Company, Youkers, N. Y. Cash register and indicator.....	458,143	Aug. 18	1973	511 512 513	56	922
Brown, Charles H. (See Eames, Ryland W., assignor.)						
Brown, Charles T. (See Carter, Michael, Jr., assignor.)						
Brown, Charles W., Columbus, and G. W. Short, Cleveland, Ohio. Election tally-sheet book.....	462,650	Nov. 3	670	169	57	680
Brown, Clifford J., La Grange, Ind. Corn-planter.....	456,548	July 28	1988	524 525	56	404
Brown, Clifton L., and E. S. Stafford, Chariton, Iowa. Machine for harvesting and husking corn.....	465,571	Dec. 22	2510	641	57	1641

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Brown, Daniel R., <i>et al.</i> (See Chevers, Aurion V., assignor.)						
Brown, Daniel V. (See Fox and Brown.)						
Brown, Daniel W., I. Clark, and J. F. Brown, South Fork, Mo. Tanning and dressing leather	464,423	Dec. 1	639	-----	57	1256
Brown, David, Hnddersfield, England. Call-bell	466,116	Dec. 29	3383	864	57	1820
Brown, David F., assignor of one-half to H. F. Brown, Omaha, Nebr. Brush-scraper attachment for paint-pails	445,876	Feb. 3	597	146	54	628
Brown, Davis, assignor of one-half to Decatur Leader Manufacturing Company, Decatur, Ill. Automatic brick and tile cutter	464,848	Dec. 8	1291	324	57	1391
Brown, Dewalden L., assignor of one-third to G. W. MacBride, Boston, Mass. Combined satchel and lunch-bag	450,988	Apr. 21	2091	515	55	421
Brown, Dillon S., Genoa, Ill. Thill-coupling	455,011	June 30	2875	731	55	1724
Brown, Dillon S., Genoa, Ill. Thill-coupling	465,918	Dec. 29	3054	782	57	1756
Brown, E. Gerry. (See Plummer, Stephen E., assignor.)						
Brown, Edward G., assignor to Chesebrough Manufacturing Company, Consolidated, Brooklyn, N. Y. Manufacturing compressed cakes of soap	461,973	Oct. 27	2330	578	57	469
Brown, Edward K., assignor to himself and G. Phillips, Brooklyn, N. Y. Dynamo-electric machine and electric motor	446,092	Feb. 10	949	233	54	704
Brown, Edwin, trustee. (See Arnold, Clarence W., assignor.)						
Brown, Edwin, trustee. (See Arnold, Oliver, assignor.)						
Brown, Edwin H. (See Blackman, Ebenezer, assignor.)						
Brown, Elizabeth R., <i>et al.</i> , administrators. (See Brown and Taplin.)						
Brown, Ellsworth, assignor of one-half to J. Hays, Dayton, Ohio. Push screw-driver	447,277	Feb. 24	2933	729	54	1108
Brown, Elmer E., <i>et al.</i> (See Jefferis, Richard W., assignor.)						
Brown, Eugene L., Putneyville, assignor of one-half to J. H. Titus, Tarentum, Pa. Mop or brush holder	462,619	Nov. 3	626	158	57	672
Brown, Flora L., Chicago, Ill. Apparatus for making coffee	447,002	Feb. 24	2438	606	54	1013
Brown, Francis C., assignor to M. Brown, New Brighton, N. Y. Fountain-pen filler	446,202	Feb. 10	1143	280	54	738
Brown, Francis M., Shelbyville, Ill. Clevis	456,473	July 21	1866	493	56	372
Brown, Frank, assignor of one-half to D. Katt, New York, N. Y. Wagon-shackle	459,991	Sept. 22	2282	572	56	1527
Brown, Fred H., Chicago, Ill. Induction-coil	446,730	Feb. 17	1990	497	54	918
Brown, Fred H., Chicago, Ill. Electric railway-train signal and recorder	452,515	May 19	1740	438	55	918
Brown, Fred H., Chicago, Ill., assignor to T. M. Moe. Pocket savings-bank	450,216	Apr. 14	840	211	55	169
Brown, Fred H., Chicago, Ill., assignor of one-half to S. F. Andrews, St. Louis, Mo. Magnetized bat-band	459,942	Sept. 22	2216	557	56	1516
Brown, Fred T., Jr., Greencastle, Ind. Horse-detacher	451,451	May 5	8	2	55	580
Brown, Frederick H., Chicago, Ill. Stave-making machinery	452,094	May 12	1045	265	55	779
Brown, George, Waitsburg, Wash. Pump	454,609	June 23	2178	562	55	1585
Brown, George, Point Edward, assignor of one-half to J. R. Brown, Bridgen, Canada. Ad-dressing-machine	463,117	Nov. 10	1430	370	57	838
Brown, George, Point Edward, assignor of one-half to J. R. Brown, Bridgen, Canada. Hand printing-press	463,118	Nov. 10	1432	370	57	838
Brown, George A., Park City, Utah Ter. Plotter	444,312	Jan. 6	518	135	54	104
Brown, George A., assignor to Tredegar Company, Richmond, Va. Spike-machine	454,455	June 23	1917	500	55	1538
Brown, George C. (See Combs, Gideon M., assignor.)						
Brown, George C. (See Green and Brown.)						
Brown, George E., and J. W. Blackwell, Wrentham, Mass. Composition of matter for soles of shoes, &c.	460,842	Oct. 6	473	-----	57	94
Brown, George S., <i>et al.</i> , administrators. (See Brown and Taplin.)						
Brown, George W., New York, N. Y. Hood-elevator	458,558	Sept. 1	15	3	56	1068
Brown, George W., Tina, Mo. Wind-motor	464,607	Dec. 8	916	225 226	57	1320
Brown, George W., deceased, (E. R. and G. S. Brown, administrators,) and A. Taplin, as-signors to Bristol Brass and Clock Company, Forestville, Conn. Lamp	466,029	Dec. 29	3261	831	57	1795
Brown, Gilman W., assignor of one-half to H. Brown, West Newberry, Mass. Automatic fire-alarm system	463,698	Nov. 17	2218	584 585	57	997
Brown, Harold P., New York, N. Y. Electric-motor car	449,752	Apr. 7	167	41, 42	55	34
Brown, Harrison B., assignor of one-half to W. W. Dudley and F. L. Browne, Washington, D. C. Electric cigar-lighter	453,618	June 9	703	182	55	1289
Brown, Harrison B., assignor of one-half to W. W. Dudley and F. L. Browne, Washington, D. C. Hub-attaching device	464,849	Dec. 8	1295	324	57	1392
Brown, Harrison B., assignor of one-half to W. W. Dudley and F. L. Browne, Washington, D. C. Lemon-juice extractor	464,954	Dec. 15	1464	369	57	1435
Brown, Harry F. (See Brown, David F., assignor.)						
Brown, Harvey, Brandt, Ohio. Fence-post	451,151	Apr. 28	2337	580	55	478
Brown, Harvey E., assignor of one-half to J. Boyer, St. Louis, Mo. Micrometer-gage	454,516	June 23	2012	522	55	1556
Brown, Hayden. (See Brown, Gilman W., assignor.)						
Brown, Henry D., assignor of one-half to C. A. Howard, Somerville, Mass. Thill-coup-ling	453,619	June 9	704	182	55	1289
Brown, Henry M., assignor of one-half to W. J. Bridges, Elkhart, Tex. Hoe	452,746	May 19	2109	530	55	989
Brown, Henry W., Cambridge, Mass. Centrifugal pump	445,919	Feb. 3	658	161	54	641
Brown, Hiram, Indianapolis, Ind. Index	460,700	Oct. 6	276	67	57	54
Brown, Hiram D., Hubbard, Tex. Railway-track lifter	449,308	Mar. 31	3297	833	54	1778
Brown, Hiram L., Shortsville, N. Y. Seeding-machine	463,479	Nov. 17	2000	523	57	955
Brown, Hubert S. (See Wyatt, Harry F., assignor.)						
Brown, Isaac. (See Kitson, John, assignor.)						
Brown, Isham N., Villa Rica, Ga. Car-coupling	459,626	Sept. 15	1726	433	56	1414
Brown, Israel F., New London, Conn. Cotton-gin attachment	462,890	Nov. 10	1073	278	57	767
Brown, J. H. (See Routt, Ansell P., assignor.)						
Brown, James A., Wilmington, Ohio. Surveyor's transit	460,909	Oct. 6	584	148	57	114
Brown, James D., Philadelphia, Pa. Self-lubricating composition	453,961	June 9	1182	308	55	1382
Brown, James F. (See Brown, Clark, and Brown.)						
Brown, James H., North Evanston, Ill. Wrench	451,022	Apr. 28	2147	531	55	440
Brown, James H., Evanston, Ill. Wrench	451,023	Apr. 28	2148	531	55	440
Brown, James H., assignor to J. Hoyt Brown Automatic Car-Coupler and Railroad Supply Company, Denver, Colo. Car-coupler	458,144	Aug. 18	1981	513	56	924
Brown, James K., Portland, Me. Heater	445,010	Jan. 20	1667	428	54	342
Brown, James L., Brookville, Pa. Pocket cash-register	455,161	June 30	3133	796	55	1773
Brown, James O., assignor to Brown Self Sharpening Mowing Machine Company, Boston, Mass. Mowing-machine	444,238	Jan. 6	418	104 105	54	82
Brown, James W., <i>et al.</i> (See Sweet, Sullivan C., assignor.)						
Brown, James W., assignor of one-half to A. L. Sweet, H. W. Blachly, and J. M. Tryon, Van Wert, Ohio. Automatic circuit-closer for telegraph-keys	456,110	July 14	1272	334	56	251

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Brown, John. (See Davis and Brown.)						
Brown, John F., Chicago, Ill., assignor to A. R. Baker, Indianapolis, Ind. Order-holder	444,811	Jan. 20	1302	338	54	272
Brown, John H. (See Kinney, Brown, and Wade.)						
Brown, John J. (See Walters and Brown.)						
Brown, John P., South Yarmouth, assignor of one-half to G. B. Lewis, Hyannis, Mass. Sash-balance.	454,009	June 9	1251	326	55	1395
Brown, John R. (See Brown, George, assignor.)						
Brown, John W., assignor of four-fifths to J. M. Hennessey, A. Paul, and R. W. Knickerbocker, New Orleans, La. Centrifugal speed-governor.	449,729	Apr. 7	132	33	55	28
Brown, John W., and A. A. Gehrt, assignors to Collins Plow Company, Quincy, Ill. Feeder for baling-presses.	465,520	Dec. 22	2424	619	57	1625
Brown, Joseph W. (See Brown, Perry and J. W.)						
Brown, Joshua R., High Point, N. C. Trunk strap and fastening.	462,198	Oct. 27	2673	669	57	534
Brown, Josiah T., and W. T. Garrett, deceased, (M. A. Garrett, administratrix,) Ballinger, Tex. Sliding weather-strip for doors.	465,338	Dec. 15	2125	544	57	1557
Brown, Julius, Boston, Mass. Book-rest.	462,467	Nov. 3	396	97	57	626
Brown, Julius L., Atlanta, Ga. Tripod.	464,471	Dec. 1	711	173	57	1270
Brown, Junius W., assignor of one-half to J. W. Wells, Russellville, Ark. Baling-press.	446,128	Feb. 10	1010	249	54	716
Brown, Junius W., assignor of one-half to W. G. Weimer and J. W. Wells, Russellville, Ark. Weather-strip for car-doors.	454,421	June 16	1868	{ 488 489 }	{ 55 }	1520
Brown, Lewis A. (See Turner and Brown.)						
Brown, Lewis A. (See Turner, Van Book, and Brown.)						
Brown, Lewis A., assignor to A. P. Bohlinger and W. C. Backof, St. Louis, Mo. Basket-hamper.	446,579	Feb. 17	1757	{ 432 433 }	{ 54 }	873
Brown, Lewis J., et al. (See Connott, Matthew F., Jr., assignor.)						
Brown, Louis K. (See Small, Charles C., assignor.)						
Brown, Mahlon M., Elmira, N. Y., assignor of one-half to G. V. Myer, Towanda, Pa. Device for applying fistula-ligatures.	454,327	June 16	1715	448	55	1492
Brown, Marie. (See Brown, Francis C., assignor.)						
Brown, Melville F., et al. (See Heighington, John B. and W., assignors.)						
Brown, Mercileus P., Fort Scott, Kans. Combined mortisor, groover, rabbeter, and borer.	458,613	Sept. 1	100	22, 23	56	1085
Brown, Miles S., Forest Home, N. Y. Tension device for self-binding harvesters.	459,555	Apr. 14	1366	327	55	269
Brown, Millard F., and T. E. Smith, San Francisco, Cal. Kitchen-cabinet.	449,346	Mar. 31	3373	850	54	1791
Brown, Nathan, Oakland, Cal. Safety-guard for sleeping-cars.	454,202	June 16	1532	403	55	1456
Brown, Patrick, Philadelphia, Pa. Swing and extension pipe-joint.	461,311	Oct. 13	1186	302	57	237
Brown, Perry, Louisville, Ky. Clamp.	444,484	Jan. 13	791	205	54	165
Brown, Perry, Louisville, Ky., and J. W. Brown, Memphis, Tenn. Wagon.	445,877	Feb. 3	598	147	54	629
Brown, Perry, Sharonville, Ohio. Car-coupling.	461,312	Oct. 13	1187	302	57	237
Brown, Perry, Sharonville, Ohio. Draw-bar for cars.	465,015	Dec. 15	1585	404	57	1458
Brown, Perry, Sharonville, Ohio. Car-coupling.	466,219	Dec. 29	3550	908	57	1852
Brown, Perry, Sharonville, Ohio, and J. W. Brown, Memphis, Tenn. Wagon.	445,829	Feb. 3	529	128	54	615
Brown, Richmond R. (See Davis and Brown.)						
Brown, Robert, Miamisburg, Ohio. Chain-wheel.	452,767	May 19	2140	536	55	996
Brown, Robert, assignor to C. E. Weaver, Miamisburg, Ohio. Meat-slicer.	453,991	June 9	1227	319	55	1390
Brown, Robert G., Brooklyn, assignor to Standard Multiplex Telegraph Company, New York, N. Y. Telegraphy.	446,424	Feb. 17	1593	{ 375 376 }	{ 54 }	827
Brown, Robert G., Brooklyn, assignor to Standard Multiplex Telegraph Company, New York, N. Y. Telegraphy.	446,425	Feb. 17	1526	376	54	828
Brown, Robert G., Brooklyn, assignor to Standard Multiplex Telegraph Company, New York, N. Y. Telegraphy.	449,897	Apr. 7	382	97	55	75
Brown, Robert J., Minneapolis, Minn. Shirt-ironing board.	463,185	Nov. 17	1538	401	57	866
Brown, Robert P., and E. L. Bailey, Philadelphia, Pa. Box for matches.	454,636	June 23	2222	572	55	1592
Brown, Robert P., and E. L. Bailey, Philadelphia, Pa. Sector-shaped paper box.	454,637	June 23	2223	572	55	1592
Brown, Samuel E., Kane, Ill. Grain-weighing machine.	449,402	Mar. 31	3477	875	54	1811
Brown, Samuel H., Boston, Mass. Manufacture of axes.	461,418	Oct. 20	1375	348	57	280
Brown, Samuel H., Boston, Mass. Bath for annealing metals.	465,156	Dec. 15	1834	.....	57	1502
Brown, Samuel H., Boston, Mass. Compound for carburizing metals.	465,828	Dec. 29	2905	.....	57	1728
Brown Self Sharpening Mowing Machine Company. (See Brown, James O., assignor.)						
Brown, Seth A., Buffalo, N. Y. Bicycle.	446,181	Feb. 10	1400	272	54	732
Brown & Sharpe Manufacturing Company. (See Davis, Charles T., assignor.)						
Brown & Sharpe Manufacturing Company. (See Norton, Charles H., assignor.)						
Brown & Sharpe Manufacturing Company. (See Worsley, Samuel L., assignor.)						
Brown, Stephen A., Fort Custer, Mont. Protractor.	454,710	June 23	2329	599	55	1614
Brown, Thomas, Thurlow, Pa. Railway-tie.	451,804	May 5	548	135	55	683
Brown, Thomas, assignor of one-half to F. Pierce, Des Moines, Iowa. Combustion mechanism.	459,518	Sept. 15	1536	383	56	1379
Brown, Thomas M., et al. (See Skinner, Albert C., assignor.)						
Brown, Thomas S., Poughkeepsie, N. Y. Back for vehicle-seats.	450,446	Apr. 14	1219	298	55	239
Brown, Thomas S., Philadelphia, Pa. Belt-tightener.	463,414	Nov. 17	1913	500	57	937
Brown, Thomas S., Philadelphia, Pa. Presser attachment for plain beaming-machines.	463,415	Nov. 17	1914	500	57	938
Brown, Thomas S., Philadelphia, Pa. Lubricator.	463,416	Nov. 17	1915	500	57	938
Brown, Thomas S., Philadelphia, Pa., assignor to Fairmount Machine Company, of Pennsylvania. Universal joint and support for pulleys.	454,422	June 16	1869	489	55	1520
Brown, Walter F., assignor of two-thirds to W. F. and G. N. Bailey and C. N. Nitterauer, St. Paul, Minn. Electric motor or generator.	455,726	July 7	699	{ 183 184 }	{ 56 }	134
Brown, Walter M. (See Avery, Herbert G., assignor.)						
Brown, Walter M., Albany, N. Y. Shipping-can.	444,659	Jan. 13	1054	274	54	216
Brown, Walter M., Albany, N. Y. Shipping-can.	444,660	Jan. 13	1055	{ 274 275 }	{ 54 }	217
Brown, Walter M., Albany, N. Y. Shipping-can.	444,669	Jan. 13	1108	286	54	227
Brown, Walter M., Albany, N. Y. Ink-well for desks.	444,876	Jan. 20	1445	376	54	299
Brown, Walter M., Albany, N. Y. Ink-well for desks.	459,438	Sept. 15	1410	353	56	1356
Brown, Walter M., Albany, N. Y. Ink-well.	459,439	Sept. 15	1412	{ 353 354 }	{ 56 }	1356
Brown, Walter M., Albany, N. Y. Ink-well for desks. (Reissue).	11,197	Oct. 13	1363	344	57	272
Brown, Walter S. (See Sparks and Brown.)						
Brown, Watson A., Rochester, N. Y. Device for operating railway-switches.	463,136	Nov. 17	1459	378	57	852
Brown, Willard F., Chicago, Ill. Combined cash-drawer and recorder.	458,384	Aug. 25	2389	583	56	1007
Brown, William. (See Walters, William B., assignor.)						
Brown, William A., assignor of one-half to A. G. Towne, San Francisco, Cal. Wrapping-machine.	466,075	Dec. 29	3327	849	57	1809
Brown, William B., Headsville, Tex. Foot for plow-stocks.	451,298	Apr. 28	2588	638	55	527
Brown, William E., Kansas City, Kans. Envelope-moistening and stamp-attaching device.	452,661	May 19	1966	493	55	962
Brown, William E., Kirkwood, N. Y. Extension-ladder.	454,454	June 23	1916	500	55	1538

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Brown, William F., Gatesville, Tex. Plow	452,881	May 26	2320	583	55	1039
Brown, William H., Worcester, Mass. Grinding-machine	461,663	Oct. 20	1825	451 452	57	363
Brown, William P., Cherryvale, Kans. Heating apparatus	452,831	May 26	2234	561	55	1023
Brown, William W., assignor to E. Muehsam, New York, N. Y. Toy puzzle	447,631	Mar. 3	585	144	54	1228
Brown, William W., and M. C. Reynolds, Culbertson, Nebr. Welding compound	444,044	Jan. 6	98	.....	54	22
Brown, Wilson, Lambertville, N. J. Car-coupling	456,474	July 21	1867	493	56	372
Brownback, James, assignor to March-Brownback Stove Company, Linfield, Pa. Oven-plate	465,424	Dec. 15	2262	580	57	1584
Browne, Arthur S. (See Robinson, Charles H., assignor.)						
Browne, Arthur W. (See Johnston and Browne.)						
Browne, Arthur W., Prince's Bay, N. Y., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Dental engine	460,687	Oct. 6	252	62	57	51
Browne, Charles L. (See Holcombe, Alfred G., assignor.)						
Browne, F. L., et al. (See Brown, Harrison B., assignor.)						
Browne, F. L., et al. (See Cottrell, George R., assignor.)						
Browne, Frank L. (See Josselyn, Tudor C., assignor.)						
Browne, Hugh M., Washington, D. C. Fire or other alarm	465,829	Dec. 29	2906	744	57	1728
Browne, James P. (See Reid and Browne.)						
Browne, Oliver L. F., Syracuse, N. Y. Rake	465,919	Dec. 29	3055	783	57	1756
Browne, Samuel G., London, England. Cabinet for filing papers, &c	446,160	Feb. 10	1079	264 265	54	726
Browne, William F., New York, N. Y. Balanced steam-valve	461,214	Oct. 13	1040	264	57	206
Browne, William G., Meriden, Conn. Tidy-holder	449,898	Apr. 7	385	97	55	75
Browne, William L., assignor of one-half to G. E. Costello, Boston, Mass. Trolley-catcher for electric cars	460,942	Oct. 13	629	162	57	130
Brownell Car Company. (See Baier and Hart, assignors.)						
Brownell, Frederick B., St. Louis, Mo. Street-car	462,620	Nov. 3	627	158	57	672
Brownell, Jonathan. (See Medbery, Horace J., assignor.)						
Brownell & Wight Car Company. (See Crow, Benjamin F., assignor.)						
Brownfield, John H., Moberly, Mo. Churn	463,800	Nov. 24	2512	656	57	1060
Brownhill, Rowland W., Aston, near Birmingham, England. Prepayment attachment for vending gas	456,011	July 14	1138	298 299	56	225
Browning, Clinton, deceased, Shoustown, Pa.; F. Browning, administrator. Cigar-bunching machine	456,691	July 28	2218	588 589	56	449
Browning, Frank. (See Turver, Charles H., assignor.)						
Browning, Frank, administrator. (See Browning, Clinton.)						
Browning, James C., Poughkeepsie, N. Y. Duplex copying and recording tablet	464,292	Dec. 1	455	109	57	1221
Browning, John M. and M. S., Ogden, Utah Ter., assignors to Winchester Repeating Arms Company, New Haven, Conn. Magazine-gnn	465,339	Dec. 15	2126	545 546	57	1557
Browning, John M. and M. S., Ogden, Utah Ter., assignors to Winchester Repeating Arms Company, New Haven, Conn. Magazine fire-arm	465,340	Dec. 15	2131	546 547	57	1558
Browning, Lewis S., Montreal, Canada. Dumping-wagon	462,090	Oct. 27	2495	620	57	500
Browning, Matthew S. (See Browning, John M. and M. S.)						
Browning, Virginia N., Camden, N. J. Toe-protector for children's shoes	461,492	Oct. 20	1549	380	57	312
Brownlee, Alexander, Dallas, Tex. Garbage-furnace	448,115	Mar. 10	1364	349	54	1366
Brownlee, John N., Detroit, Mich. Pole for overhead systems of electric railways	449,753	Apr. 7	172	42	55	35
Brownlee, Robert N., assignor of one-half to E. House, Bend, Tex. Stalk-cutter	460,843	Oct. 6	473	120	57	94
Brownlow, Richard S., Manchester, England. Construction of apparatus for softening and purifying water	461,664	Oct. 20	1827	452	57	363
Bruce, Daniel, Jr., Providence, R. I. Ship	450,350	Apr. 14	1067	262	55	211
Bruce, Lucien F., Springfield, Mass. Cartridge box or case	452,447	May 19	1630	407	55	899
Bruce, Lucien F., Springfield, Mass. Magazine for breech-loading fire-arms	462,298	Nov. 3	125	31, 32	57	575
Bruce, Norman H., Waterford, assignor of seven-tenths to A. G. Peck, G. H. Morrison, and C. P. Kimball, Lansingburg, N. Y. Trimming attachment for machines for sewing looped fabrics	456,012	July 14	1142	299 300	56	225
Bruce, Norman H., Waterford, assignor of part to G. H. Morrison and C. P. Kimball, Lansingburg, N. Y. Apparatus for removing snow and ice from railway-tracks	457,702	Aug. 11	1257	325	56	770
Bruce, Robert, Pendleton, Oreg. Halter	459,541	Sept. 15	1576	394	56	1366
Bruce, Robert M., Rolling Fork, assignor of one-half to W. H. Stowers, Vicksburg, Miss. Fire-tongs	463,887	Nov. 24	2660	693	57	1088
Bruce, Sidney T., Marshall, Mo. Valve-gear for engines	460,628	Oct. 6	152	37	57	32
Bruce, Sidney T., Marshall, Mo. Automatic cut-off and reversing valve gear	462,728	Nov. 10	851	223	57	724
Bruce, Winslow L. (See Lamson, Ebenezer G., assignor.)						
Bruckmann, Gustav T., Brooklyn, N. Y. Furnace for heating and other purposes	461,313	Oct. 13	1189	303	57	237
Brueckel, Heinrich. (See Plischke and Brueckel.)						
Bruen, William, and H. C. Hunt, Newark, N. J. Machine for mixing liquids	455,479	July 7	284	72	56	57
Bruening, William, East Orange, N. J. Phonograph	462,687	Nov. 10	745	193 194	57	703
Brumbaugh, John H., J. M. Radcliff, and F. C. Hyde, Lexington, Nebr. Corn-planter	459,831	Sept. 22	2044	514	56	1483
Brummer, George, assignor to A. A. Barnes, North Indianapolis, Ind. Commode	455,387	July 7	144	37	56	31
Brunnmet, Daniel W. (See Cook, John W. B., assignor.)						
Brundage, Edwin L., East Orange, N. J. Horse-collar	461,419	Oct. 20	1376	348	57	280
Brunell, Arthur B., Worcester, Mass. Hat-box indicator	464,006	Dec. 1	7	2	57	1138
Brunner, Preston M., St. Louis, Mo. Concrete pavement	450,054	Apr. 7	598	149	55	115
Brunner, Walter, and E. W. Knemeyer, Fort Madison, Iowa. Stop-bead for windows	458,095	Aug. 18	1904	495	56	910
Brunner, William R., assignor of one-half to Henshaw & Sickles, Exira, Iowa. Harness-buckle	463,774	Nov. 24	2477	647	57	1054
Brunhoff, Edward. (See Lehmann and Brunnhoff.)						
Brunhoff, Edward, and C. Lehmann, Chicago, Ill. Cigar-tip cutter	448,116	Mar. 10	1365	350	54	1366
Brunhoff, Edward, and C. Lehmann, Chicago, Ill. File-clip	448,117	Mar. 10	1366	350	54	1366
Brunker, Nephi, Swan Lake, Idaho. Railway-switch	453,405	June 2	348	90	55	1213
Brunn, Henry, Buffalo, N. Y. Sleigh	458,722	Sept. 1	267	63	56	1116
Brunner, Charles. (See Lewis, George W., assignor.)						
Brunner, Charles, Peru, Ill. Platform-scale	451,613	May 5	256	61	55	628
Brunner, John D., Doylestown, Pa. Carriage-spring	455,736	July 14	726	190	56	148
Bruno Nordberg Company. (See Nordberg, Bruno V., assignor.)						
Bruno, Richard M. (See Wiesebrook, Frederick W., assignor.)						
Brunns, Justus, Weehawken, N. J. Bowling-alley	456,375	July 21	1712	453	56	343
Brunt & Son, H. (See Headley, Harry, assignor.)						
Brunt, William. (See Gamble, John E., assignor.)						
Bruntton, David W., Aspen, Colo. Device for sampling ores	454,120	June 16	1408	368	55	1432
Brush, Charles F., assignor to Brush Electric Company, Cleveland, Ohio. Secondary battery	445,422	Jan. 27	2293	595	54	474

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Brush, Charles F., assignor to Brush Electric Company, Cleveland, Ohio. Spring cushioned or suspended arc lamp.....	461,420	Oct. 20	1377	348	57	280
Brush Electric Company. (See Adams, Thomas E., assignor.)						
Brush Electric Company. (See Brush, Charles F., assignor.)						
Brusie, James. (See Jennings, Byron, assignor.)						
Bruso, John F., Worcester, Mass. Supplemental base for graduate-glasses.....	455,094	June 30	3020	767	55	1752
Brüstle, Andrew, Hyde Park, assignor to J. Hood and S. H. Reynolds, Boston, Mass. Dental chair.....	447,487	Mar. 3	370	91	54	1188
Brustlein, Henri A., Unieux, France. Process of and apparatus for hardening hollow articles of steel.....	449,998	Apr. 7	525	131	55	101
Brustlein, Henri A., Unieux, France. Armor-plate and manufacturing the same.....	450,713	Apr. 21	1655	398 399	55	338
Brunton, Alonzo D., Clarksville, Tex. Clevis.....	456,793	July 28	2397	631	56	482
Bryan, Anthony H., Evansville, Ind. Automatic pump and water-elevator.....	462,651	Nov. 3	672	170	57	681
Bryan, Frank, assignor to Woodhouse & Rawson United, Limited, London, England. Cut-out.....	459,560	Sept. 15	1607	403	56	1392
Bryan, James G., Philadelphia, Pa. Water-closet.....	448,908	Mar. 24	2667	670	54	1651
Bryan, Oscar M., Wilson County, near Chanute, Kans. Horse-driver.....	456,013	July 14	1146	300	56	226
Bryan, William L., San Antonio, Tex. Thill-coupling.....	448,499	Mar. 17	2013	503	54	1519
Bryant, Alexander, and W. J. Crow, New York, N. Y. Safety-valve for expansion-pipes.....	449,243	Mar. 31	3179	802	54	1758
Bryant, Berry. (See Ritch and Bryant.)						
Bryant, Charles K., Hartford Conn. Dental drill.....	453,254	June 2	116	32	55	1170
Bryant, Cushing M., assignor to W. R. Forrest, Seattle, Wash. Specimen-box.....	457,758	Aug. 11	1361	351	56	800
Bryant Electric Company. (See Bryant, Waldo C., assignor.)						
Bryant, Emory H. (See Hopkins and Bryant.)						
Bryant, Fanny F., Lincoln, Kans. Egg boiler or cooker.....	451,166	Apr. 28	2359	586	55	483
Bryant, George, San Francisco, Cal. Shoe.....	462,468	Nov. 3	398	97	57	626
Bryant, Herbert B., Manchester, N. H. Carrier's knife.....	444,724	Jan. 13	1157	298	54	236
Bryant, James R., et al. (See Yaryan, Harvey B., assignor.)						
Bryant, Noah. (See King and Bryant.)						
Bryant, Orrin, assignor to Pierce Steam Heating Company, Buffalo, N. Y. Machine for cutting screw-threads on tubes.....	459,389	Sept. 15	1333	334 335	56	1341
Bryant Sawing Machine Company. (See Beauregard, Victor, assignor.)						
Bryant Sawing Machine Company. (See Beauregard and Gooding, assignors.)						
Bryant, Stanley A., et al., administrators. (See Massey, Gideon L.)						
Bryant, Thomas W., Torrington, Conn. Skate.....	464,312	Dec. 1	486	116	57	1227
Bryant, Waldo C., Bridgeport, Conn. Incandescent-lamp socket.....	457,072	Aug. 4	223	56	56	575
Bryant, Waldo C., assignor to Bryant Electric Company, Bridgeport, Conn. Electric switch.....	457,300	Aug. 4	596	156	56	643
Bryant, William. (See Ross, William H., assignor.)						
Bryant, Zenas F., Malden, assignor of one-half to A. H. Cushing, Brookline, Mass. Furnace-grate.....	450,351	Apr. 14	1068	262	55	211
Byce, Andrew, Pittsburg, assignor of one-half to J. A. McConnell, Allegheny, Pa. Apparatus for finishing or cleaning surfaces.....	446,961	Feb. 24	2374	591 592	54	1001
Byce, Andrew, Pittsburg, assignor of one-half to J. A. McConnell, Allegheny, Pa. Finishing wood surfaces.....	446,962	Feb. 24	2379	592	54	1002
Byce, James C., assignor to Nichols & Shepard Company, Battle Creek, Mich. Belt-tension device.....	447,444	Mar. 3	284	72	54	1171
Bryers, John J., et al. (See D'Homergue, Louis C., assignor.)						
Bryon, William J. O., Jr., New York, N. Y. Water or air cylinder.....	446,426	Feb. 17	1528	376	54	828
Bryson, Charles R., Pittsburg, Pa. Roll for reducing old railway-rails.....	452,095	May 12	1052	266	55	780
Buatier, Joseph, Paris, France. Theatrical illusion.....	462,391	Nov. 3	279	69	57	603
Buchan, Ewing, Toronto, Canada. Measuring device for bottles.....	465,750	Dec. 22	2784	711	57	1694
Buchanan, Albert N., Brooklyn, N. Y. Fly-delivery for bronzing or other machines.....	447,101	Feb. 24	2606	647	54	1045
Buchanan, Charles G., Rockaway, N. J. Ore or rock breaker.....	446,658	Feb. 17	1876	466	54	896
Buchanan, Charles G., New York, N. Y. Magnetic ore-separator.....	446,767	Feb. 17	2045	509 510	54	930
Buchanan, Frank, Lima, Ohio. Electric-arc lamp.....	452,633	May 19	1924	483	55	954
Buchanan, John W., Smithville, Ohio. Wire fence.....	453,542	June 2	570	145	55	1255
Buchanan, Judson. (See Sanders and Buchanan.)						
Buchanan, Luther H., Pasadena, assignor of one-half to J. D. Shorb, San Gabriel, Cal. Electric-arc lamp.....	447,746	Mar. 3	753	188	54	1260
Buchanan, William J., Huntington, Ind. Device for printing in colors.....	460,461	Sept. 29	2998	751	56	1671
Buchanan, William J., Huntington, Ind. Repeating toy gun.....	461,257	Oct. 13	1103	281	57	220
Bucher, Frank. (See Mark, John T., assignor.)						
Bucher & Gibbs Plow Company. (See Gibbs, Lewis, assignor.)						
Buchholz, Henry A., New York, N. Y. Exhibition-rack.....	454,328	June 16	1716	448	55	1492
Buchholz, John A. A., Twickenham, England. Roller-mill.....	453,755	June 9	907	236	55	1327
Buchhop, Ferdinand. (See Meyrowitz and Buchhop.)						
Buchmiller, D. F. (See Iske, Anthony, assignor.)						
Buchwalter, Calvin H., Philadelphia, Pa. Device for lifting photograph-negatives.....	450,447	Apr. 14	1221	298	55	239
Buck, C. O. (See Buck, Henry U., assignor.)						
Buck, Darwin D., et al. (See Hoids, John C., assignor.)						
Buck, Edward A., et al. (See Leach, Rufus, assignor.)						
Buck, Fred, and O. Konigsow, Cleveland, Ohio, assignors, by mesne assignments, to A. J. Green and W. R. Elliott, Essex Centre, Ontario, Canada. Combination tool and holder.....	450,596	Apr. 14	1430	352	55	281
Buck, Henry U., Lexington, Miss., assignor to C. O. Buck, Memphis, Tenn. Self-setting animal-trap.....	459,453	Sept. 15	1435	360	56	1360
Buck, James E., Lansing, Mich. Gate.....	447,659	Mar. 3	619	154	54	1235
Buck, John L., et al. (See Gillmore, Harmon, assignor.)						
Buck, Oliver H., McLean, Ill. Hay-stacker.....	465,157	Dec. 15	1834	466	57	1502
Buck, Sterling P., Front Royal, Va. Automatic stop molasses-gate.....	458,313	Aug. 25	2269	554	56	984
Buck, Taylor S., Brooklyn, N. Y. Type-holder.....	456,014	July 14	1148	300	56	226
Buckhee, John H. (See Fenton, Herschel, assignor.)						
Buckey, George J., Jr., and O. F. Firestone, Frederick, Md.; said Firestone assignor to said Buckey. Plow.....	461,627	Oct. 20	1771	436	57	352
Buckeye Car Coupler Company. (See Timms, James, assignor.)						
Buckeye Car Seal and Manufacturing Company. (See Foote, Lewis A., assignor.)						
Buckeye Engine Company. (See Thompson, Joseph W., assignor.)						
Buckingham, Cassius M., assignor of one-half to F. L. Jones, Utica, N. Y. Butter-printer.....	460,943	Oct. 13	630	163	57	130
Buckingham, John L., Hermosa, S. D. Wire-tightener.....	453,106	May 26	2696	679	55	1113
Buckingham, John L., and J. F. Yeates, Hermosa, S. D. Snap-hook.....	449,870	Apr. 7	341	87	55	68
Buckland, Henry B., Newcastle-upon-Tyne, England. Steam-boiler.....	449,244	Mar. 31	3180	802	54	1758

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Buckland, Leverette C. (See Herndon and Buckland.)						
Buckley, Charles E., Amenia Union, N. Y. Device for watering stock	445,920	Feb. 3	659	161	54	641
Buckley, Charles E., Amenia Union, N. Y. Sheet-metal check-valve	464,812	Dec. 8	1244	311	57	1381
Buckley, John, Boston, Mass. Water-closet-valve regulator	444,528	Jan. 13	863	224	57	180
Buckley, John P. (See Mangan and Buckley.)						
Buckley, Julien G. (See Roberts, William E., assignor.)						
Buckley, William, Sheffield, England. Lathe	457,070	Aug. 4	220	53 54 55	56	575
Bucklin, John E., assignor of one-half to R. E. Morris, Washington, D. C. Horseshoe-machine	450,597	Apr. 14	1432	352	55	281
Bucklin, William C., New York, N. Y. Combined stove and water-back	455,528	July 7	365	93	56	72
Buckman, Samuel Y., Philadelphia, Pa. Process of and apparatus for tinning sheet metal	451,261	Apr. 28	2528	623	55	515
Buckman, Samnel Y., Philadelphia, Pa. Apparatus for coating sheet-metal plates	451,262	Apr. 28	2530	623 624	55	515
Buckman, Samuel Y., Philadelphia, Pa. Apparatus for cleaning sheet-metal plates	451,263	Apr. 28	2532	624	55	516
Buckman, Samuel Y., Philadelphia, Pa. Apparatus for coating metal plates	451,264	Apr. 28	2534	624 625	55	516
Buckman, Samuel Y., Philadelphia, Pa. Edging-machine	451,265	Apr. 28	2537	625	55	517
Bucknam, James L., Columbia Falls, Me. Hook	457,524	Aug. 11	987	262	56	724
Buckner, J. C., et al. (See Ringo, Birt, assignor.)						
Buckstaff-Edwards Company. (See Koeser, Carl D., assignor.)						
Buckton, Albert R., Keighley, England. Folding baby-carriage	444,086	Jan. 6	167	41, 42	54	36
Buda Iron Works. (See Westervelt, Benjamin J., assignor.)						
Budde & Westermann. (See Weisz, Albert R., assignor.)						
Buddenberg, Henry C., Cincinnati, Ohio. Gripping device	458,614	Sept. 1	102	23	56	1086
Budington, Albert G., Austin, Tex. Railway-tie	464,424	Dec. 1	640	158	57	1256
Buehl, Arthur B. (See Huffer and Buehl.)						
Buehler, John G. (See Shelley, James H., assignor.)						
Buell, Edgar, Clinton, Conn. Machine for making tools from wire	463,826	Nov. 24	2550	665	57	1068
Buell, Will M., Baird, Tex. Hanging bed	463,657	Nov. 24	2303	605	57	1021
Buence, Samuel W. (See Hewitt and Buence.)						
Buenno, Samuel W., and J. Schuetz, Argentine, Kans. Saw-set	457,179	Aug. 4	379	97	56	605
Buffer, John A., San Francisco, Cal. Ice-cream freezer	447,747	Mar. 3	755	188	54	1261
Buffington, Burnett V. (See Edwards and Buffington.)						
Buffington, Frederick W., et al. (See Gates, Waldo L., assignor.)						
Buffington, Thomas H., Berrysburg, Pa. Screw-driver	466,220	Dec. 29	3552	909 458 459 460 461	57	1852
Buffum, Herbert H., Abington, Mass. Boot or shoe nailing machine	459,698	Sept. 15	1826	796 303	56	1434
Bugbee, Anna M., Milwaukee, Wis. Portable cabinet	455,162	June 30	3134	796	55	1773
Bugg, Henry C., and E. B. Loomis, Memphis, Tenn. Car-coupling	461,314	Oct. 13	1190	303	57	238
Bugg, Owen T., assignor to American Manufacturing Export Company, Newark, N. J. Machine for removing lint from cotton-seed	446,321	Feb. 10	1354	330	54	870
Bühler, Adolph, Reichenhall, Germany. Mucilage-holder	453,229	June 2	73	18	55	1162
Buhop, John J., Cleveland, Ohio. Vapor or oil burner	452,861	May 26	2283	573	55	1032
Buie, Henry T. (See Arney, Frank J., assignor.)						
Bulger, R. R., et al. (See Williams, Francis M., assignor.)						
Bulger, W. H., et al. (See Williams, Francis M., assignor.)						
Bull, Annabell C., Peoria, Ill. Cake or pudding stirrer	461,912	Oct. 27	2236	552	57	451
Bulla, Milton V., South Bend, Ind. Broom-holder	458,332	Aug. 25	2301	562	56	991
Bullard, Charles W., Chicago, Ill. Door-hanger	450,352	Apr. 14	1070	263	55	211
Bullard, Edward P. (See Libby, Charles L., assignor.)						
Bullard, Ezekiel W., Barre, Mass. Combined can and pump	465,608	Dec. 22	2572	654	57	1652
Bullard, Ezekiel W., Barre, Mass., assignor of one-half to A. N. Elliott, Philadelphia, Pa. Fire-escape	448,176	Mar. 10	1463	373	54	1406
Bullard, James H., Springfield, Mass. Apparatus for burning hydrocarbons	463,853	Nov. 24	2602	677	57	1078
Bullard, James H., Springfield, Mass. Apparatus for burning hydrocarbons	463,854	Nov. 24	2603	677	57	1078
Bullard, Josephine H., Boston, Mass. Finger-ring	464,749	Dec. 8	1152	286	57	1362
Bullen, William G., Milwaukee, Wis. Game-board	458,516	Aug. 25	2601	633	56	1047
Bulley, Louis T., assignor to Peerless Button Hole Attachment Company, Tyler City, Conn. Overseaming attachment for sewing-machines	456,354	July 21	1661	439	56	334
Bulley, Louis T., New Haven, assignor to Peerless Button Hole Attachment Company, Tyler City, Conn. Button-hole attachment for sewing-machines	456,355	July 21	1666	439	56	335
Bullinger, Frank X., et al. (See Bullinger, Joseph, assignor.)						
Bullinger, John C., et al. (See Bullinger, Joseph, assignor.)						
Bullinger, Joseph, assignor of three-fourths to H. W. Lease, J. C. and F. X. Bullinger, Kansas, Ohio. Window	456,136	July 21	1318	347	56	269
Bullock, Alanson B., Canton, Mass. Twisting-machine	450,137	Apr. 14	725	182	55	147
Bullock & Co., O. W. (See Fish, Wallace B., assignor.)						
Bullock & Co., O. W. (See Meehan, Edward H., assignor.)						
Bullock, Joseph P., Milwaukee, Wis. Grain-binder	452,337	May 12	1452	359 360	55	856
Bullock, Lothrop L. (See Mullaly and Bullock.)						
Bullock, Milan C. (See Douglass, Samuel W., assignor.)						
Bullock, Milan C. (See Douglass and Bullock.)						
Bullock, Milan C., Chicago, Ill. Hoisting-machine	462,299	Nov. 3	129	32, 33	57	575
Bullock, Milan C., Chicago, Ill. Drilling apparatus	462,392	Nov. 3	220	69	57	604
Bullock, Milan C., Chicago, Ill. Hydraulic feed for drilling-machines	462,393	Nov. 3	284	70	57	605
Bullock, Milan C., Chicago, Ill. Hydraulic feed for drilling-machines	464,182	Dec. 1	261	64, 65	57	1185
Bullock, William, Cleveland, Ohio. Ironing-machine	454,456	June 23	1918	500 501	55	1338
Bullock, William, Cleveland, Ohio. Means for regulating the draft in smoke-stacks	458,996	Sept. 8	700	172	56	1210
Bulneck, William, Centralia, Pa. Coal-drill	462,199	Oct. 27	2674	669	57	534
Bulova, Joseph, New York, N. Y. Ear-ring	459,476	Sept. 15	1469	369	56	1367
Bulova, Joseph, New York, N. Y. Ear-ring	465,830	Dec. 29	2907	745	57	1729
Bumann, Theodore, Bunker Hill, Ill. Oil-can and siphon-pump	456,758	July 28	2353	620	56	473
Bumpass, Edward K., Pine Bluff, Ark. Metallic end for vehicles	449,664	Apr. 7	30	6	55	8
Bumstead, William T., assignor of one-half to H. M. Hill, Beatrice, Nebr. Attachment for baby-carriages	447,660	Mar. 3	620	154	54	1235
Bunce, William H., Jersey City, N. J., assignor to C. C. Woolworth and J. S. Graham, New York, N. Y. Banding device for postal-card machines or the like	465,653	Dec. 22	2640	673	57	1666

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Bunch, John N., Eugene, Oreg. Washing-machine	448,118	Mar. 10	1367	350	54	1387
Bundy, Willard L., Auburn, N. Y. Card-printing attachment for cash-registers.	457,766	Aug. 11	1371	{ 453 454 }	{ 56	802
Bundy Manufacturing Company. (See Bundy, Willard L., assignor.)						
Bundy, Willard L., assignor to Bundy Manufacturing Company, Binghamton, N. Y. Work- man's time-recorder	452,894	May 26	2340	{ 590 591 }	{ 55	1042
Bundy, Willard L., assignor to Bundy Manufacturing Company, Binghamton, N. Y. Work- man's time-recorder	453,230	June 2	74	19, 20	55	1162
Bunger, John W. (See Lostutter, David, assignor.)						
Bunker, Harman, assignor of one-half to J. H. McKeggie, Barrie, J. C. McKeggie, G. T. Blackstock, Toronto, Canada, and M. J. Althouse, Waupun, Wis. Car-coupling	466,221	Dec. 29	3553	909	57	1852
Bunker, Horace E. (See Heron, William B., assignor.)						
Bunker, Ira S., Nevada, Mo. Swing	461,541	Oct. 20	1633	399	57	327
Bunker, Le Roy S., Newell, Iowa. Pitman	465,454	Dec. 22	2310	593	57	1604
Bunker, William B., Warren, Ill. Stamp-applying device	452,257	May 12	1313	329	55	831
Bunker, William I., La Grange, Ill. Combined chair and hammock	446,659	Feb. 17	1878	{ 466 467 }	{ 54	897
Bunker, William I., La Grange, Ill. Electric cable	450,734	Apr. 21	1678	406	55	343
Bunn, William T., and J. Faircloth, Newberne, Tenn. Spring-seat for vehicles	453,543	June 2	570	145	55	1256
Bunnell, Francis A., assignor to C. C. Bradley and M. E. Bunnell, Syracuse, N. Y. Ap- paratus for purifying water	445,537	Feb. 3	12	3	54	513
Bunnell, Mary E., et al. (See Bunnell, Francis A., assignor.)						
Bunnell, Morton G., assignor, by mesne assignments, to A. B. Austin, Chicago, Ill. Ma- chine for making and repairing roads	448,708	Mar. 24	2354	{ 590 591 }	{ 54	1592
Bunnell, Morton G., assignor, by mesne assignments, to A. B. Austin, Chicago, Ill. Ma- chine for making and repairing roads	455,701	July 7	650	{ 171 172 173 }	{ 56	126
Bunnell, Morton G., assignor, by mesne assignments, to A. B. Austin, Chicago, Ill. Ma- chine for making and repairing roads	455,702	July 7	655	173	56	126
Bunnell, Morton G., assignor, by mesne assignments, to A. B. Austin, Chicago, Ill. Ma- chine for making and repairing roads	455,703	July 7	658	174	56	127
Bunnell, Morton G., assignor, by mesne assignments, to A. B. Austin, Chicago, Ill. Ma- chine for making and repairing roads	455,704	July 7	660	{ 174 175 }	{ 56	127
Bunnell, Morton G., assignor, by mesne assignments, to A. B. Austin, Chicago, Ill. Ma- chine for making and repairing roads	455,705	July 7	662	175	56	128
Bunnell, Morton G., assignor, by mesne assignments, to A. B. Austin, Chicago, Ill. Ma- chine for making and repairing roads	455,706	July 7	664	{ 175 176 }	{ 56	128
Buntin, William C. (See Simpson, George H., assignor.)						
Bunting, William, Jr., Brooklyn, assignor to Meyer-Sniffen Company, Limited, New York, N. Y. Wash-basin plug and mechanism	447,863	Mar. 10	970	243	54	1309
Bunting, William, Jr., Brooklyn, assignor to Meyer-Sniffen Company, Limited, New York, N. Y. Water-closet	462,029	Oct. 27	2414	599	57	485
Bunting, William, Jr., Brooklyn, assignor to Meyer-Sniffen Company, Limited, New York, N. Y. Water-closet	462,030	Oct. 27	2415	599	57	485
Bunting, William, Jr., Brooklyn, assignor to Meyer-Sniffen Company, Limited, New York, N. Y. Water-closet	465,609	Dec. 22	2574	654	57	1652
Bunting, William, Jr., Flushing, assignor to Meyer-Sniffen Company, Limited, New York, N. Y. Bathing apparatus and valve therefor	459,506	Sept. 15	1514	379	56	1375
Buntrock, Louis, Allegheny, Pa. Log-bolster	464,813	Dec. 8	1245	311	57	1381
Buob, Frederick. (See Keck and Buob.)						
Burbank, Alice N., Napoli, N. Y. Puzzle	460,552	Oct. 6	9	3	57	4
Burbridge, Joshua G., Dubuque, Iowa. Neck-yoke	457,422	Aug. 11	828	214	56	695
Burch, Amasa, et al. (See Butler, Howard H., assignor.)						
Burch, Robert A., and A. B. Winfree, Paducah, Ky. Car-brake	456,398	Dec. 21	1742	460	56	349
Burcham, Jackson G., Mount Zion, Ill. Fence	464,349	July 1	542	132	57	1237
Burdett, Francis F. (See Johnson, John K., assignor.)						
Burdette, Harry C., Martinsburg, W. Va. Thill-coupling	459,248	Sept. 8	1102	269	56	1286
Burdick, Charles H., Nelliston, N. Y. Revolving book-support	451,632	May 5	291	71	55	633
Burdick, Charles L., Madison, Wis. Pneumatic ink-eraser	463,619	Nov. 24	2240	590	57	1010
Burdick, Francis A. (See Zietlow, John L. W., assignor.)						
Burdick, Justin H., Milton, assignor to Elastic Nut Company, Milwaukee, Wis. Nut- making machine	460,553	Oct. 6	10	3	57	4
Burdick, Justin H., Milton, assignor to Elastic Nut Company, Milwaukee, Wis. Manu- facture of nuts	460,554	Oct. 6	13	3, 4	57	5
Burdick, Theodore, Toledo, Ohio. Woven-wire mattress	460,712	Oct. 6	293	72	57	57
Burdon, David P., assignor of one-half to P. Sattelkau, Jacksonville, Fla. Water-elevator for railway-tanks	460,844	Oct. 6	474	{ 120 121 }	{ 57	94
Burdon, David P., assignor of one-half to P. Sattelkau, Jacksonville, Fla. Vacuum water- elevator	460,845	Oct. 6	476	121	57	95
Burdon, Levi L., assignor to Burdon Seamless Filled Wire Company, Providence, R. I. Seamless compound gold and silver wire	446,618	Feb. 17	1811	448	54	883
Burdon, Levi L., assignor to Burdon Seamless Filled Wire Company, Providence, R. I. Producing seamless compound wire	446,619	Feb. 17	1812	448	54	884
Burdon, Levi L., assignor to Burdon Seamless Filled Wire Company, Providence, R. I. Manufacture of seamless compound ingots and wire made therefrom	460,108	Sept. 29	2464	616	56	1570
Burdon Seamless Filled Wire Company. (See Burdon, Levi L., assignor.)						
Burdon Seamless Filled Wire Company. (See Meyer, George U., assignor.)						
Burgdorff, Theodore F., United States Navy. Compass-watch	460,097	Sept. 22	2445	611	56	1559
Burger, Andreas, Philadelphia, Pa. Thill-coupling	454,329	June 16	1717	448	55	1492
Burges, Ray, Oswego, N. Y. Sash-balance	452,258	May 12	1315	329	55	831
Burgess, Andrew, Owego, N. Y. Magazine fire-arm	458,333	Aug. 25	2302	562	56	991
Burgess, Andrew, Owego, N. Y. Magazine fire-arm	463,225	Nov. 17	1597	416	57	877
Burgess, Charles M., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Knob-shank	444,557	Jan. 13	911	237	54	189
Burgess, Charles M., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Sash-fastener	465,158	Dec. 15	1835	466	57	1502
Burgess, Charles M., and H. G. Voight, assignors to Russell & Erwin Manufacturing Com- pany, New Britain, Conn. Stop for latches	450,353	Apr. 14	1071	263	55	211
Burgess, Edward T., Columbus, Ohio. Gasoline-stove	465,341	Dec. 15	2134	547	57	1558
Burgess, Harry A., Goodland, Ind. Combined hay rake, loader, unloader, and stacker	463,937	Nov. 24	2743	711	57	1104
Burgess, Hugh, Royer's Ford, Pa. Glass-melting furnace	451,287	Apr. 28	2574	{ 635 636 }	{ 55	524
Burgess, Hugh, Royer's Ford, Pa. Vacuum evaporating apparatus	451,751	May 5	475	118	55	668
Burgess, James R., Port Huron, Mich. Rail-joint fastening	445,971	Feb. 10	745	182	54	668

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Burgess, John G. (See Warenskjold and Burgess.)						
Burgess, John T. M., Birmingham, England. Registering money-box	454,846	June 30	2551	656	55	1662
Burgess, Neilson. (See Knell, James W.)						
Burgess, William H., et al. (See Herson, John, assignor.)						
Burghard, Joseph, and C. J. Heimberger, Providence, R. I. Bottle-stopper	453,420	June 2	388	101	55	1920
Burgos, Pastor. (See Messina and Burgos.)						
Burgoynes, John Y. (See McWhirter, Robert B., assignor.)						
Burgoynes, May, New York, N. Y. Mask for vaporizing the skin	461,520	Oct. 20	1602	392	57	322
Burhorn, Edwin, Philadelphia, Pa., assignor to B. H. Coffey, New York, N. Y. Filter	457,025	Aug. 4	141	35	56	560
Burk, Howard R., New York, N. Y. Globe-holder	448,119	Mar. 10	1369	350	54	1387
Burk, John W., Coldwater, Mich. Flour and cereal testing case	447,661	Mar. 3	621	154	54	1235
Burke, Charles G., Richmond Hill, N. Y. Telegraphic transmitting-instrument	460,109	Sept. 29	2465	616	56	1570
Burke, Charles G., Richmond Hill, N. Y. Telegraphic instrument	460,110	Sept. 29	2468	617	56	1570
Burke, Charles G., Richmond Hill, N. Y. Telegraphic instrument	460,111	Sept. 29	2470	617	56	1570
Burke, Daniel C., et al. (See Tanner, Jesse J., assignor.)						
Burke, James A., and T. Moriarty, Fall River, Mass. Ring-spinning frame	462,791	Nov. 10	901	236	57	734
Burke, Matthew, Chicago, Ill. Sulky-cultivator	458,217	Aug. 25	2096	542	56	952
Burke, Stephen E., assignor of one-half to L. W. Johnson, Edon, Ohio. Road-cart	446,508	Feb. 17	1655	404	54	853
Burke, Stephen E., assignor of one-half to L. W. Johnson, Edon, Ohio. Road-cart	457,600	Aug. 11	1109	283	56	748
Burke, Thomas, Fordham, N. Y. Flue-cleaner	465,590	Dec. 22	2545	649	57	1648
Burke, William H., Scotland, Ind. Thrill-coupling	455,163	June 30	3135	796	55	1773
Burke, William J., Seattle, Wash. Reflecting-light	460,462	Sept. 29	3000	751	56	1672
Burkhard, Thomas, Brooklyn, N. Y. Candy-cream cooler	444,147	Jan. 6	279	67	54	57
Burkhard, Thomas, Brooklyn, N. Y. Steam-kettle	458,298	Aug. 25	2248	549	56	980
Burkhard, Thomas, Brooklyn, N. Y. Steam-kettle	458,299	Aug. 25	2249	549	56	980
Burkhardt, John, assignor to W. H. Jackson & Co., New York, N. Y. Machine for impressing ornamental designs upon metallic tubing	461,812	Oct. 27	2073	511	57	418
Burkhartsmeier, Daniel. (See Johnson and Burkhartsmeier.)						
Burkholder, Alfred, Toronto, Canada. Baby-walker. (Reissue)	11,140	Jan. 20	1893	488	54	385
Burkholder, John H., and J. L. Clark, Ashland, Ohio; said Burkholder assignor to D. F. Shearer. Fence-machine	448,601	Mar. 17	2174	542	54	1549
Burks, J. H., et al. (See Delane, Anson W., assignor.)						
Burks, Walter, assignor of two-thirds to W. T. Goode, Lynchburg, and W. A. Moore, Charlottesville, Va. Device for catching and delivering mail-bags	448,709	Mar. 24	2360	591	54	1593
Burleigh, Joseph A. (See McDaniel, Charles W., assignor.)						
Burley, Emerson, et al. (See Grant, Daniel, assignor.)						
Burling, Benjamin H., assignor of two-thirds to F. M. Lamb and H. McDonald, Fort Ann, N. Y. Self-raising ladder	449,999	Apr. 7	526	131	55	102
Burling, William, Oxford, Pa. Radiator	457,601	Aug. 11	1111	283	56	749
Burling, William, Oxford, Pa. Steam-generator or water-heater	465,293	Dec. 15	1953	499	57	1527
Burlingame, Rasselas G., Hartford, Mich. Jar-cover	455,921	Feb. 3	661	161	54	642
Burlington Blind Company. (See Baldwin, Judson A., assignor.)						
Burnet, Harry W., East Orange, N. J. Mechanical cut-out	462,836	Nov. 10	983	255	57	750
Burnet, Robert, assignor, by mesne assignments, to S. Burnet, East Orange, N. J. Paper-feeding mechanism	463,620	Nov. 24	2243	591	57	1011
Burnet, Sarah. (See Burnet, Robert, assignor.)						
Burnett, Peyton, Wauchula, Fla. Grass-cutting implement	451,452	May 5	9	3	55	580
Burnett, Robert L. (See English, John C., assignor.)						
Burnett, William H., et al. (See Crowley, Richard J., assignor.)						
Burnett, William H., et al. (See Morgan and Crowley, assignors.)						
Burnham, Arthur M., Gardiner, Me., assignor to Boston Wringer Company, of Maine. Mop-wringer	454,203	June 16	1534	403	55	1457
Burnham, Charles E., White Plains, N. Y. Striking mechanism for clocks	461,315	Oct. 13	1190	303	57	238
Burnham, Edgar W., et al. (See Pepper, Thomas, assignor.)						
Burnham, Edgar W., San Diego, Cal. Music-leaf turner	447,040	Feb. 24	2516	624	54	1027
Burnham, John, Batavia, Ill. Windmill	456,549	July 28	1990	525	56	404
Burnham, John P. and O. G., Chicago, Ill. Disintegrating and separating apparatus	448,844	Mar. 24	2570	645	54	1633
Burnham, Lewis T., Waltham, Mass. Absorbent cotton	459,608	Sept. 15	1682	420	56	1407
Burnham, Oliver G. (See Burnham, John P. and O. G.)						
Burnham, Walter, Hyde Park, Ill., assignor to C. T. Root, Short Hills, N. J. Governor-valve for hydraulic forging-machines	452,360	May 19	1491	369	55	873
Burnley, William, North East, Pa. Porous cell for galvanic batteries	450,354	Apr. 14	1071	263	55	212
Burns & Barclay Company. (See Burns, Charles O., assignor.)						
Burns, Charles O., New York, N. Y. Savings-receptacle	453,879	June 9	1074	280	55	1360
Burns, Charles O., assignor to Burns & Barclay Company, New York, N. Y. Savings-receptacle				281		
Burns, Cornelius, Burnside, Pa. Mining-car	457,576	Aug. 11	1071	274	56	742
Burns, Edward, Montello, Wis. Portable hoisting-machine	453,107	May 26	2697	680	55	1113
Burns, James A. (See Potter and Burns.)						
Burns, James A., Homestead, Pa. Crane	464,705	Dec. 8	1087	269	57	1351
Burns, James A., Homestead, Pa. Crane	464,706	Dec. 8	1088	269	57	1351
Burns, James A., Homestead, Pa. Fluid connection for cranes	464,707	Dec. 8	1091	270	57	1352
Burns, James A., Homestead, Pa. Ingot-manipulator	464,708	Dec. 8	1092	270	57	1352
Burns, James A., Homestead, Pa. Journal-bearing for cranes	465,691	Dec. 22	2698	687	57	1677
Burns, John, Rochester, assignor of one-half to J. H. Reynolds, Troy, N. Y. Apparatus for feeding hydrocarbon to furnaces	453,142	May 26	2752	693	55	1122
Burns, John, Rochester, assignor of one-half to J. H. Reynolds, Troy, N. Y. Apparatus for effecting the admixture of oil, air, and steam, and for injecting the same into furnaces or retorts	456,111	July 14	1273	334	56	251
Burns, Joseph, Fort Plain, N. Y. Hydrocarbon-burner	464,850	Dec. 8	1296	324	57	1392
Burns, Martin, Platte Centre, Nebr. Corn-harvester	457,252	Aug. 4	510	134	56	628
Burns, Peter S. (See Hull and Burns.)						
Burns, Robert. (See Westbrook and Burns.)						
Burns, Robert H. (See Vogt and Burns.)						
Burns, Thomas. (See Pavyer and Burns.)						
Burns, William A., East Hickory, Pa. Hame-tug	463,938	Nov. 24	2745	712	57	1104
Burns, William H., Los Angeles, Cal. Carbon for electric lamps	446,660	Feb. 17	1879	712	54	897
Burpee, George H., New York, N. Y., assignor to American Fuel Economizer Company. Apparatus for heating feed-water. (Reissue)	11,162	May 5	702	176	55	711

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Burr, Archer H., Omaha, Nebr. Incubator	456,794	July 28	2398	{ 631 632 }	{ 56 }	482
Burr, Brown & Co. (See Remington, John O., assignor.)						
Burr, Charles T., and G. B. Hankins, assignors of one-third to C. M. Shortle, Ithaca, N. Y. Wrench	461,603	Oct. 20	1793	422	57	345
Burr, Chauncey R., Boston, Mass. Furnace	464,425	Dec. 1	641	158	57	1256
Burr, Chauncey R., Boston, Mass. Wick-trimmer	465,125	Dec. 15	1786	451	57	1493
Burr, Ebenezer B. (See Thorne and Burr.)						
Burr, Ebenezer B., London, England. Cigar or cigarette holder	446,377	Feb. 10	1433	352	54	797
Burr, George W., Round Lake, N. Y. Valve	444,156	Jan. 6	293	70	54	60
Burr, Jesse T., Mount Vernon, Ohio. Self-locking pulley	461,316	Oct. 13	1194	304	57	239
Burr, Melbourne C., Minneapolis, Minn. Folding crate	458,689	Sept. 1	222	52	56	1108
Burrell, Charles F. (See Burrell and Markland, assignors.)						
Burrell, Samuel J., and W. H. Markland, Brooklyn, assignors to C. F. Burrell, New York, N. Y. Electric signaling device	445,538	Feb. 3	13	3, 4	54	513
Burrell, Speer G., Penn Hall, Pa. Automatic railway-gate	462,300	Nov. 3	135	33	57	576
Burrell, William C., La Salle, Ill. Combined seeder and harrow	447,864	Mar. 10	972	244	54	1309
Burris, Mary A., New York, N. Y. Broiling device	466,154	Dec. 29	3454	883	57	1833
Burroughes, James S. (See Buttery, Walter, assignor.)						
Burroughes, James S., London, England. Board or game table	448,120	Mar. 10	1370	351	54	1387
Burrows, Edward T., Portland, Me. Scale-measure	449,034	Mar. 24	2854	726	54	1688
Burrows, Francis, Philadelphia, Pa. Photographic camera	463,284	Nov. 17	1687	{ 441 442 }	{ 57 }	895
Burrows, George H., Somerville, Mass. Ventilating apparatus	445,878	Feb. 3	599	{ 147 148 }	{ 54 }	629
Burrows, George H., Somerville, Mass. Tuyere	463,379	Nov. 17	1850	484	57	926
Burrows, George H., Somerville, assignor to U. K. Pettingill, Boston, Mass. Shutter-fastener	445,366	Jan. 27	2209	573	54	457
Burrows, J. M. (See Barnes, Guy V., assignor.)						
Burrows, Leonard S. (See Zoller and Burrows.)						
Burnson, David C., Topeka, Kans. Vacuum and force pump	460,944	Oct. 13	631	163	57	130
Burst, Leonard, assignor of one-half to C. A. Dietrich, St. Louis, Mo. Boring-bar	463,480	Nov. 17	2001	523	57	955
Burt, Charles A., assignor to Burt Manufacturing Company, Rochester, N. Y. Can-wiping machine	464,007	Dec. 1	8	3	57	1138
Burt, Emma R., Gatesville, Tex. Chemise	453,255	June 2	117	32	55	1170
Burt, Frederick N., assignor of one-half to S. F. Blakesly, Springfield, Ill. Governor-valve	454,423	June 16	1870	489	55	1520
Burt, John C., Haddam, Kans. Washing-machine	451,688	May 5	377	92	55	651
Burt, Lee, Detroit, Mich. Gas-burner	466,091	Dec. 29	3354	856	57	1814
Burt Manufacturing Company. (See Burt, Charles A., assignor.)						
Burt Manufacturing Company. (See Merrell, Gaius L., assignor.) (Reissue.)						
Burt, Martin C., Chicago, Ill. Dynamo-electric machine	463,242	Nov. 17	1625	{ 423 424 }	{ 57 }	884
Burt, Merritt, assignor to Railway Water Supply Company, Jacksonville, Fla. Device actuated by passing trains for pumping water, &c.	456,535	July 21	1968	519	56	392
Burt & Tobey. (See Tobey, Charles W., assignor.)						
Burt, William, Portsmouth, Ohio. Spark arrester and consumer	457,071	Aug. 4	222	56	56	575
Burton, Augustus G., assignor to C. E. Davis and J. W. Norris, Chicago, Ill. Clay-seal-making machine	444,232	Jan. 6	409	{ 101 102 }	{ 54 }	81
Burton, Charles S., Chicago, Ill. Self-inking stamp	449,309	Mar. 31	3298	834	54	1779
Burton, Clarence A., Kansas City, Kans. Ball-bearing for cable-railway sheaves	458,517	Aug. 25	2602	633	56	1047
Burton, Garrett G., Trenton, Nebr. Book-binder	462,426	Nov. 3	335	82	57	614
Burton, George D., Boston, Mass. Stock-car	450,138	Apr. 14	726	182	55	148
Burton, George D., Boston, and E. E. Angell, Somerville, Mass., assignors to Electrical Forging Company, of Maine. Electric blank-heater for forging-machines	444,914	Jan. 20	1517	{ 390 391 }	{ 54 }	312
Burton Machine Company. (See Broomell, Thomas W., assignor.)						
Burton, Matthew, Chicago, Ill. Animal-trap	458,218	Aug. 25	2097	543	56	953
Burton, William, Plymouth, Wis. Destroying Canada thistles	464,092	Dec. 1	131		57	1162
Burwell, Charles E., Springfield, Mass. Friction-clutch	451,752	May 5	477	118	55	669
Bury, Theodore, Cleveland, Ohio. Ventilator	462,652	Nov. 3	673	170	57	681
Busard, Osee A. (See McMurray and Busard.)						
Busbea, Albert G., Garner, Ark. Bed-brace	464,644	Dec. 8	976	243	57	1332
Busby, Nahum J., Maplewood, Mass. Alarm-gong	447,537	Mar. 3	446	110	54	1201
Busby, Nahum J., Maplewood, Mass. Alarm-gong	447,538	Mar. 3	448	110	54	1202
Busch, Richard A., Dresden, Germany. Manufacturing sheet-metal signs	446,427	Feb. 17	1530	377	54	828
Buscher, John, assignor to G. D. Barnard, St. Louis, Mo. Index-tab	450,055	Apr. 7	600	149	55	116
Buschner, Carl F., New York, N. Y. Car-truck	458,707	Sept. 1	247	58	56	1112
Buschner, Carl F., New York, N. Y. Anti-friction bearing for cars	458,723	Sept. 1	268	63	56	1116
Busell, James H., Boston, Mass., assignor to J. H. Busell Manufacturing Company, Nashua, N. H. Beading and burnishing tool	451,207	Apr. 28	2440	603	55	497
Busell Manufacturing Company, J. H. (See Busell, James H., assignor.)						
Bush, Curt, Penlynn, Pa. Packing and guard for adjustable spigots for kegs, &c.	457,768	Aug. 18	1376	355	56	809
Bush, Edward R. (See Ricketts and Bush.)						
Bush, Frederick. (See Balch and Bush.)						
Bush, George H. (See McHugh, Hugh, assignor.)						
Bush, Henry, Holgate, Ohio. Corn-planter	460,248	Sept. 29	2673	666	56	1610
Bush, Hiram T., Detroit, Mich., assignor to Cope Brothers, of Michigan. Siphon for flushing tanks	458,044	Aug. 18	1832	477	56	895
Bush, James J., Newark, N. J., assignor of one-half to T. F. Powers, Brooklyn, N. Y. Steam-generator	447,865	Mar. 10	974	244	54	1310
Bush, James J., Newark, N. J., assignor of one-half to T. F. Powers, Brooklyn, N. Y. Steam-generator	447,866	Mar. 10	977	245	54	1310
Bush, John E. (See Weeks and Bush.)						
Bush Surface Cattle Guard Company. (See Howard and Shannon, assignors.)						
Bush, Thomas J., Lexington, Ky. Interlocking bolt	444,988	Jan. 20	1636	419	54	335
Bush, Thomas J., Lexington, Ky. Die for making bolts	445,001	Jan. 20	1656	424	54	339
Bush, Thomas J., Lexington, Ky. Die for making bolts	446,281	Feb. 10	1290	316	54	767
Bush, Thomas J., Lexington, Ky. Combined support and fastening for railway-rails	446,282	Feb. 10	1291	316	54	767
Bush, Thomas J., Lexington, Ky. Die for making bolts	446,768	Feb. 17	2046	510	54	930
Busbey, Thomas, and L. Sommer, Paterson, N. J. Shutter-fastener	459,063	Sept. 8	813	197	56	1230
Bushman, Gustav C., assignor to Pullman's Palace Car Company, Chicago, Ill. Gate for car-platforms	447,102	Feb. 24	2608	648	54	1046
Bushnell, Edwin L., Poughkeepsie, N. Y. Car-seat	461,179	Oct. 13	970	250	57	192
Bushnell, Edwin L., assignor to E. L. Bushnell Spring Company, Limited, Poughkeepsie, N. Y. Car-seat	456,015	July 14	1149	{ 300 301 }	{ 56 }	226
Bushnell, Henry C., Providence, R. I. Blind-fastener	453,590	June 2	644	166	55	1269

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Bushnell, John S., <i>et al.</i> (See Stetson, Thomas D., assignor.)						
Rushong, Israel, New Holland, Pa. Suspension apparatus	445,658	Feb. 3	228	62	54	557
Rushong, Israel, New Holland, Pa. Fishing-tackle	449,202	Mar. 31	3121	787	54	1747
Busiel, Charles A., <i>et al.</i> (See Esty, William, assignor.)						
Busiel, Frank E., <i>et al.</i> (See Esty, William, assignor.)						
Busiel, John T., <i>et al.</i> (See Esty, William, assignor.)						
Bussard, William, Port Jefferson, Ohio. House-door letter-box	448,500	Mar. 17	2014	504	54	1519
Büsser, Otto, Oderborg, near Berlin, Germany. Means for propelling boats by electricity	464,955	Dec. 15	1464	369	57	1435
Bussert, Asher, Amanda, Ohio. Threshold	448,501	Mar. 17	2015	504	54	1519
Bussey, George W., Juda, Wis. Buckle	460,846	Oct. 6	477	122	57	95
Bussey, George W., Juda, Wis. Gate	461,317	Oct. 13	1195	304	57	239
Butcher, Charles, Cambridge, Mass. Truck	455,653	July 7	574	149	56	111
Butcher, Hezekiah. (See Welty and Leach, assignors.)						
Butcher, Joseph, Melrose, Mass. Word-counter for type-writers	451,167	Apr. 28	2360	586	55	484
Butler, Frank L., Carpentersville, Ill. Tower and mast	449,730	Apr. 7	133	33, 34	55	28
Butler, Henry G., Kenosha, Wis. Feeding apparatus for use in burning clay	447,458	Mar. 3	309	78	54	1176
Butler, Henry G., Kenosha, Wis. Feeding apparatus for use in burning clay to make ballast, &c.	462,427	Nov. 3	336	83	57	614
Butler, Henry G. and W., Kenosha, Wis. Feeding apparatus for use in burning clay	447,459	Mar. 3	311	78	54	1176
Butler, Howard H., assignor to H. B. Hutchinson, A. Burch, T. E. Collins, and W. J. Means, Canton, Ohio. Fire-extinguisher	461,421	Oct. 20	1378	349	57	281
Butler, James D., Lowell, Mass. Shuttle-box-operating mechanism for looms	456,550	July 28	1991	525 526 527	56	405
Butler, James L., Akron, Ohio. Sulky-cultivator	456,551	July 28	1996	527	56	405
Butler, James N., and R. N. Stockton, Philadelphia, Pa. Button	456,475	July 21	1868	493	56	372
Butler, John W., Hamilton, Ohio. Washing-machine	454,028	June 16	1279	333	55	1408
Butler, Josiah, executor. (See Shaw, Benjamin F.)						
Butler, Lewell P., Gibsland, La. Cornstalk-cutter	450,611	Apr. 21	1462	359	55	295
Butler, Louis W., Brooklyn, N. Y. Device for operating doors to elevator-shafts	462,200	Oct. 27	2674	670	57	534
Butler, Richard, New Brighton, Pa. Curtain-fixture	464,645	Dec. 8	977	243	57	1332
Butler, Thomas A., Oliver Springs, Tenn. Combined roller and seed-sower	449,754	Apr. 7	173	43	55	35
Butler, Thomas H., Harrisburg, Pa. Ice-machine	461,233	Oct. 13	1075	272	57	214
Butler, Thomas H., Baltimore, Md. Filter	461,234	Oct. 13	1076	272	57	214
Butler, Thomas H., Baltimore, Md. Device for feeding chemicals to filters	461,235	Oct. 13	1077	272	57	214
Butler, William. (See Butler, Henry G. and W.)						
Butler, William, and Z. G. Simmons, Jr., Kenosha, Wis. Ballast-loading apparatus	447,460	Mar. 3	313	78	54	1177
Butler, William J., assignor of one-third to H. W. Bogart, Woodstock, Canada. Railway-crossing signal	466,155	Dec. 29	3455	883	57	1834
Butler, William M., Rochester, N. Y. Compound faucet	464,472	Dec. 1	712	174	57	1270
Butler, William P., Chicago, Ill. Lamp	451,753	May 5	478	118 119	55	669
Butler, William R. (See Hersh, James N., assignor.)						
Butler, Wilson W., Lima, Ohio. Burial-case	447,662	Mar. 3	622	154	54	1235
Butlin, Charles H., Camborne, England. Curb-bit	466,222	Dec. 29	3554	909	57	1852
Butt, Addison W., Springfield, Ohio. Corn-harvester	445,367	Jan. 27	2210	573	54	457
Butt, Addison W., Springfield, Ohio. Cultivator	445,846	Feb. 3	552	134 135	54	619
Butt, Addison W., Springfield, Ohio. Cultivator	445,847	Feb. 3	554	135	54	620
Butt, Charles. (See Murray, William, assignor.)						
Butt, Charles A., North East, Pa., assignor of one-half to M. V. Sickly, Macon, Mich. Laundry and scrubbing brush	448,602	Mar. 17	2175	542	54	1550
Butterfield, George. (See Butterfield, Harman B., assignor.)						
Butterfield, Harman B., Toronto, Canada, assignor to G. Butterfield, Oconto, Wis. Combined counter check-book and directory	448,207	Mar. 17	1527	391	54	1427
Butterfield, Henry R., Waterville, Me. Vacuum-core for electrical heating devices	447,127	Feb. 24	2645	656	54	1053
Butterfield-Mitchell Electric Heating Company. (See Mitchell, Willis, assignor.)						
Butterfield, Nathaniel, Monroe, Wis. Fire-escape or chain ladder	449,518	Mar. 31	3662	920	54	1847
Buttery, Walter, assignor to J. S. Burroughes, London, England. Billiard-table	459,957	Sept. 22	2234	561	56	1519
Butterworth, Alexander W. (See Wills, William, assignor.)						
Buttler, William, Washington, Pa. Decorating glass articles	460,358	Sept. 29	2859		56	1645
Button, Benjamin G., Waterloo, Iowa. Envelope	444,045	Jan. 6	99	25	54	23
Button, Charles R. (See Button, Theodore E., assignor.)						
Button, Eugene L., New York, N. Y. Shoe-rest	461,974	Oct. 27	2331	578	57	469
Button, George, and W. E. Wyeth, Kimberley, Grigoland West, South Africa. Apparatus for extracting gold and silver from their ores by electrical amalgamation	455,164	June 30	3136	796	55	1774
Button, Theodore E., assignor of one-half to C. R. Button, Waterford, N. Y. Boiler	459,561	Sept. 15	1608	403	56	1393
Butts, Alexander W., Celina, Tex. Grain-scale	448,316	Mar. 17	1724	436	54	1465
Butts, William, Philadelphia, Pa. Dish-washing machine	465,455	Dec. 22	2311	593 594	57	1604
Butts, William L., Evansville, Ind. Range	457,921	Aug. 18	1637	428	56	857
Butz, A. M. (See Gardner, Fulton, assignor.)						
Butz, Albert M., Chicago, Ill. Thermostat	452,163	May 12	1168	295	55	802
Butz, John F., Wichita, Kans. Double-deck water and feed stock-car	452,259	May 12	1316	329 330	55	831
Buxton, Charles H., assignor to Sign Supply Company, Chicago, Ill. Sign, price-card, &c.	454,424	June 16	1871	489	55	1520
Buxton, Joseph L. (See Sweet, Edgar A., assignor.)						
Buyer, Jacob, Sandusky, Ohio. File-cutting machine	462,075	Oct. 27	2473	613	57	496
Buzby, Lehman B., Mauriceetown, N. J. Combined cultivator and fertilizer-distributor	451,805	May 5	548	135 136 181 182	55	683
Buzzell, Charles E., Leaf River, Ill. Electric railway-signal	464,490	Dec. 8	743		57	1285
Buzzell, Frank O. (See Buzzell, George H., assignor.)						
Buzzell, George H., Boston, Mass., assignor of one-half to F. O. Buzzell, Bangor, Me. Pipe-wrench	463,784	Nov. 24	2489	650	57	1056
Byers, Andrew C. (See Byers, John L. and A. C.)						
Byers, Henry W. (See Byers, Morton L. and H. W.)						
Byers, John F., Minneapolis, Minn. Automatic fire-sprinkler	450,574	Apr. 14	1388	343	55	274
Byers, John L. and A. C., Forreston, Ill. Harrow attachment for plows	457,808	Aug. 18	1440	374	56	821
Byers, Morton L. and H. W., New Castle, Pa. Locking device for spring-rail frogs	462,201	Oct. 27	2676	670	57	535
Byers, Parker A., <i>et al.</i> (See Berry, Robert C., assignor.)						
Byler, David K., near Urbana, Ohio. Street-door letter-box	444,520	Jan. 13	851	221	54	178
Bynum, Henry D., <i>et al.</i> (See Norwood, Richard W., assignor.)						
Byram, Frank A., Philadelphia, Pa. Game apparatus	459,432	Sept. 22	2046	514	56	1484

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Byram, John W., Washington, D. C. Elevator safety-catch	452,096	May 12	1053	266	55	780
Byrd, Orval E., Crawfordsville, Ind. Thill-support	452,634	May 19	1926	484	55	954
Byrne, Frank P. (See Downey, Thomas F., assignor.)						
Byrne, James E., Boston, Mass. Electric elevator	461,493	Oct. 20	1550	380 381	57	312
Byrne, John T., Manayunk, Pa. Bobbin or cop winding machine	457,846	Aug. 18	1501	390	56	833
Byrne, Nicholas J., assignor to J. H. Casey, Kansas City, Mo. Hose-coupling	455,606	July 7	503	131	56	97
Byron, Thomas, <i>et al.</i> (See Helmond, Peter, assignor.)						
C. T. Ham Manufacturing Company. (See Orphy, John W., assignor.)						
Cabell, George C., <i>et al.</i> (See Croft, David B., assignor.)						
Cabell, Milton S., assignor of one-half to A. B. Faunce, Quincy, Ill. Gear for steam-engine indicators	458,530	Aug. 25	2620	638	56	1051
Cable, H. S. (See Nickerson, Sidney T., assignor.)						
Cabot, George E. (See Holtzer and Cabot.)						
Cabot, John, New York, N. Y. Tray for gas-purifiers	457,577	Aug. 11	1072	274	56	742
Caddick, George, Allegheny, Pa. Piano-forte	454,204	June 16	1535	404	55	1457
Caddy, Thomas E., Nottingham, England. Furnace	464,008	Dec. 1	10	3	57	1138
Cadman, Alexander W., Edgewoodville, Pa. Alloy	464,147	Dec. 1	210		57	1176
Cadwell, Annie B. (See Lord, Peter, assignor.)						
Cadwell, Jason R., Woodlawn Park, assignor to himself, and R. B. Pierpont, Chicago, Ill. Inhaler	465,456	Dec. 22	2313	594	57	1604
Cadwell, Marvin S., Lansing, Mich. Basket	462,531	Nov. 3	489	120	57	644
Cadwell, William H., Lansing, Mich. Basket or tray holder	453,231	June 2	77	20	55	1163
Cadwgan, Thomas C., assignor, by mesne assignments, to O. S. Kelly Company, Springfield, Ohio. Crushing and grinding mill	453,620	June 9	705	182	55	1289
Cadwgan, Thomas C., assignor, by mesne assignments, to O. S. Kelly Company, Springfield, Ohio. Crushing and grinding mill	457,146	Aug. 4	327	84	56	596
Cady, Clark, Waldron, Mich. Steam-generator for vapor-baths	463,939	Nov. 24	2746	712	57	1104
Cady, Frank P., Cleveland, Ohio, assignor to Bridgeport Chain Company, Bridgeport, Conn. Chain-making machine	466,117	Dec. 29	3384	864 ⁿ 865 866 867	57	1820
Cady, Harry F. (See Jackson, Uriah S., assignor.)						
Cady, Henry G., Pine Bluff, Ark. Vessel-saving apparatus	465,342	Dec. 15	2137	547	57	1559
Cady, Oscar L., Lincoln, Nebr. Meat-tenderer	454,330	June 16	1718	448	55	1492
Caesar, Peter J., Fergus Falls, Minn. Device for sharpening razors	455,165	June 30	3137	797	55	1774
Cabalan, Annie B., San Francisco, Cal. Pipe	451,316	Apr. 28	2612	644	55	531
Cabill, John W., assignor of one-half to J. Hollingsworth, Lechiel, Ind. Seeder and cultivator	465,072	Dec. 15	1675	426 427 543 544 545 546	57	1473
Cabill, Thaddens, Oberlin, Ohio. Piano-forte action	458,219	Aug. 25	2099	546	56	953
Cabill, William E., Utica, N. Y. Trimmer for knitting-machines	445,423	Jan. 27	2294	595	54	474
Caboon, James B., and I. F. Baker, Lynn, Mass., assignors to Thomson-Houston Electric Company, of Connecticut. Contact-trolley for electric railways	446,428	Feb. 17	1532	377	54	828
Caddy, William, Jr., assignor to S. R. Beckwith, New York, N. Y. Vending apparatus	454,425	June 16	1873	490	55	1521
Cahow, James W., Lexington, Nebr. Harvester-reel driver	461,813	Oct. 27	2076	512	57	419
Caille, A. Arthur. (See Caille, Joseph M., assignor.)						
Caille, Adolph A., assignor to Union Store Service Company, East Saginaw, Mich. Cash and parcel carrier	458,724	Sept. 1	269	64	56	1117
Caille, Joseph M., assignor to A. A. Caille, Saginaw, Mich. Cash-carrier	456,980	Aug. 4	88	21	56	550
Caille, Joseph M., assignor, by mesne assignments, to Utility Manufacturing Company, Limited, Saginaw, Mich. Store-service apparatus	464,293	Dec. 1	457	109	57	1222
Cain, Harry A., Philadelphia, Pa. Watch-holder for bicycles	465,159	Dec. 15	1837	466	57	1502
Cairncross, Stewart, Grafton, N. D. Aerial machine	464,851	Dec. 8	1298	325	57	1392
Cairns, Peter J., Chicago, Ill. Pen-holder	444,046	Jan. 6	100	25	54	23
Calahan, Thomas F., St. Louis, Mo. Shears	452,260	May 12	1318	330	55	832
Calame-Jaccard, Paul. (See Junod, Jaccard, and Calame-Jaccard.)						
Calder, George, Jr., assignor to M. H. Calder, Lancaster, Pa. Matrix-making machine	444,124	Jan. 6	234	56, 57	54	48
Calder, George, Jr., assignor to M. H. Calder, Lancaster, Pa. Matrix-making machine	444,125	Jan. 6	237	58	54	49
Calder, George, Jr., assignor to M. H. Calder, Lancaster, Pa. Matrix-making machine	445,040	Jan. 20	1713	440 441	54	350
Calder, Mary H. (See Calder, George, Jr., assignor.)						
Calderwood, Victor E., and A. Le Sueur, Arvilla, N. D. Feeder and band-cutter for thrashing-machines	458,334	Aug. 25	2305	562 563	56	991
Caldwell, Alex, Essex, Iowa. Agricultural implement	457,769	Aug. 18	1377	356	56	809
Caldwell, Alfred, Providence, R. I. Socket-tip for flexible tubing	450,139	Apr. 14	727	183	55	148
Caldwell, Andrew J. (See Worthington and Caldwell.)						
Caldwell, David L., <i>et al.</i> (See Pugh, Cortez V., assignor.)						
Caldwell, Edward P., Minneapolis, Minn. Car-coupling	456,532	July 28	2000	528	56	406
Caldwell, Edward P., assignor to Cyclone Steam Snow Plow Company, Minneapolis, Minn. Flanger for snow-plows	454,109	June 16	1391	364	55	1429
Caldwell, Edward P., assignor of one-half to C. P. Jones, Minneapolis, Minn. Rotary flanger	454,110	June 16	1393	364	55	1429
Caldwell, Frank G., Wheeling, W. Va. Cornice	453,544	June 2	571	145	55	1256
Caldwell, Harper, Pineville, Mo. Vehicle-brake	456,795	July 28	2400	632	56	482
Caldwell, Harper, Pineville, Mo. Car-coupling	464,426	Dec. 1	643	158	57	1257
Caldwell, Homer M., assignor to S. Forehand, Worcester, Mass. Revolver	453,421	June 2	389	101	55	1220
Caldwell, John, Shreveport, La. Whiffletree	455,918	July 14	1000	260	56	200
Caldwell, John, assignor of one-half to J. Foster, Beloit, Wis. Compound tool	445,972	Feb. 10	746	183	54	668
Caldwell, John A., Bay Ridge, N. Y. Steam-boiler	459,742	Sept. 22	1906	481	56	1456
Caldwell, John H. (See McClain and Caldwell.)						
Caldwell, Larkin G., Shelby, Mo. Grain-separator	453,232	June 2	78	21	55	1163
Caldwell, Lee E., Elvaston, Ill. Door-check	446,322	Feb. 10	1357	331	54	781
Caldwell, Matthew G., North East, Pa. Gate	464,170	Dec. 1	247	60	57	1182
Caldwell, Robert L., Rochester, N. Y. Trolley-wire connection	459,485	Sept. 15	1484	372	56	1370
Caldwell, Truman S., Highmore, Colo. Refrigerator	458,153	Aug. 25	1993	516	56	934
Calhoun, James G. (See Garrison and Calhoun.)						
Calhoun, Samuel. (See Garrison and Calhoun.)						
Calkins, Almon B., assignor of one-half to F. C. Dininny, Jr., New York, N. Y. Spring-testing device	450,989	Apr. 21	2092	515 516	55	421
Calkins, Almon B., assignor of one-half to F. C. Dininny, Jr., New York, N. Y. Parallel-ruling scale	458,966	Sept. 1	649	159	56	1192

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Calkins, Almon B., assignor of one-half to F. C. Dininny, Jr., New York, N. Y. Adjustable dividing-scale	458,967	Sept. 1	650	159	56	1192
Calkins, Almon B., assignor of one-half to F. C. Dininny, Jr., New York, N. Y. Polar planimeter	458,968	Sept. 1	652	159	56	1193
Calkins, Sylvester B., Charlevoix, Mich. Display rack or case	454,164	June 16	1476	387	55	1445
Call, Edward B., Peoria, Ill. Dental bridge work	445,309	Jan. 27	2131	550	54	441
Callahan Company, Cornelius. (See Callahan, Cornelius, assignor.)						
Callahan, Cornelius, assignor to C. Callahan Company, Boston, Mass. Relief-valve	445,041	Jan. 20	1718	{ 441 442 }	54	351
Callahan, Cornelius, assignor to C. Callahan Company, Boston, Mass. Gong	448,008	Mar. 10	1217	309	54	1356
Callahan, James E., Philadelphia, Pa. Hydrant-valve	444,047	Jan. 6	101	26	54	23
Callahan, Owen P., assignor of one-half to L. A. Simms, Spokane Falls, Wash. Mail-bag fastening	444,289	Jan. 6	489	128	54	97
Callantine, Joseph, Peru, Ind. Car-coupling	460,329	Sept. 29	2812	700	56	1637
Callaway, Edward H., New York, N. Y., assignor of one-half to G. W. Sharer, Philadelphia, Pa. Sand and gravel heater	448,408	Mar. 17	1873	471	54	1493
Callendar, Hugh L., London, England. Telethermometer	462,371	Nov. 3	245	59, 60	57	597
Calpha, James D., Mount Carmel, Ind. Gate	454,847	June 30	2553	657	55	1662
Calta, James H., Castalia, S. D. Stove	453,899	June 9	1099	287	55	1364
Calvert, Charles E. (See Tilley and Calvert.)						
Calvert, James T., Spartanburg, S. C. Dental engine	463,855	Nov. 24	2606	677	57	1078
Cambria Iron Company. (See Coffin, John, assignor.)						
Cameron, Allan B., Williamsport, Pa. Wood channeling and grooving machine	450,396	Apr. 14	1141	279	55	225
Cameron, Allan B., Williamsport, Pa. Inlaid wood-work	454,517	June 23	2013	522	55	1556
Cameron, Allan B., Williamsport, Pa. Composite ornamental panel	455,095	June 30	3021	767	55	1752
Cameron, Arthur, assignor to F. C. Austin, Chicago, Ill. Feed-cutter	449,572	Mar. 31	3734	939	54	1860
Cameron, Arthur, assignor to F. C. Austin, Chicago, Ill. Well-sinking machine	460,500	Sept. 29	3065	770	56	1684
Cameron, Arthur, assignor to F. C. Austin, Chicago, Ill. Well-making machine	461,903	Oct. 27	2222	549	57	449
Cameron, Arthur, assignor to F. C. Austin, Chicago, Ill. Well-making machine	461,904	Oct. 27	2223	{ 549 550 }	57	449
Cameron, Arthur, assignor to F. C. Austin, Chicago, Ill. Emery-grinder	462,394	Nov. 3	287	70, 71	57	605
Cameron, Arthur, assignor, by mesne assignments, to A. B. Austin, Chicago, Ill. Friction lock or clutch for fly-wheels of feed-cutters	449,612	Mar. 31	3819	957	54	1875
Cameron, Arthur, assignor, by mesne assignments, to A. B. Austin, Chicago, Ill. Expansion-drill for well-sinking	449,613	Mar. 31	3821	958	54	1875
Cameron, Arthur, Kalamazoo, Mich., and T. G. Chapman, assignors to F. C. Austin, Chicago, Ill. Tubular well	449,771	Apr. 7	197	50	55	40
Cameron, David G., Allegheny, Pa. Sham pillow	457,180	Aug. 4	381	97	56	605
Cameron, James W., assignor, by mesne assignments, to Sugar Coated Yeast Company, New York, N. Y. Yeast-cake	451,706	May 5	400		55	655
Cameron, Lewis, Pittsburg, Pa. Manufacturing cast-steel	464,920	Dec. 8	1392		57	1410
Cameron, Nell C., Magnolia, Ark. Making concrete tombstones	461,542	Oct. 20	1635	399	57	328
Cameron, W. S., et al. (See Soggs, Henry and C., assignors.)						
Cameron, William, Milpitas, Cal. Impalement-trap	459,674	Sept. 15	1798	452	56	1428
Cameron, William, Milpitas, Cal. Bit-stock	463,440	Nov. 17	1945	507	57	944
Camichel, John, New York, N. Y. Spring-motor for mechanical lamps, &c.	448,208	Mar. 17	1528	391	54	1427
Cammerbeke, Peter, Greeley, Kans. Lawn-mower	465,160	Dec. 15	1838	467	57	1503
Camp, David, et al. (See Rockwell, Warren C., assignor.)						
Camp, David C., Gainesville, Ga. Ice-cream freezer	449,665	Apr. 7	31	6	55	8
Camp, Henry C., St. Paul, Minn. Electric-railway system	462,688	Nov. 10	748	{ 194 195 }	57	703
Camp, Horace B., Cuyahoga Falls, Ohio. Clay disintegrating and separating mill	452,895	May 26	2342	592	55	1043
Camp, Horace B., Cuyahoga Falls, Ohio. Clay-disintegrating mill	452,896	May 26	2345	593	55	1043
Camp, Horace B., Cuyahoga Falls, Ohio. Brick-machine	455,540	July 7	388	{ 100 101 102 }	56	76
Camp, Rollin A., Saginaw, Mich. Ice-creeper	450,503	Apr. 14	1301	319	55	257
Camp, Theodore H., et al. (See Wright, William A., assignor.)						
Camp, Wesley F., Nannie, Ga. Attachment for plows	459,743	Sept. 22	1907	481	56	1456
Camp, William A. (See Mitchell, James M., assignor.)						
Campbell, Albert N. (See Johnson, Alfred E., assignor.)						
Campbell, Alice I., Chicago, Ill. Button-hole-scissors gage	464,750	Dec. 8	1153	286	57	1363
Campbell, Ammi B., Bridgeport, Conn. Pneumatic transmitter	454,992	June 30	2839	722	55	1717
Campbell, David E., Cincinnati, Ohio. Cash and parcel carrier	455,273	June 30	3313	838	55	1807
Campbell, Duncan H., assignor to Campbell Machine Company, Pawtucket, R. I. Wax-pot for use in machines for waxing thread	456,536	July 21	1969	519	56	392
Campbell, Ellen E., administratrix. (See Clifford, William P., assignor.)						
Campbell, Francis M., assignor to Front Rank Steel Furnace Company, St. Louis, Mo. Hot-air furnace	458,969	Sept. 1	655	160	56	1193
Campbell, Francis M., and W. L. Flower, St. Louis, Mo. Oil-filter	456,797	July 28	2402	{ 632 633 }	56	482
Campbell, Freeman. (See Brown, Andrew J., assignor.)						
Campbell, George G., Milwaukee, Wis. Bell spring and clapper holder	460,555	Oct. 6	17	5	57	5
Campbell, George L., assignor to C. S. Hill and J. B. H. Trainer, Williamsport, Pa. Boring-machine	447,176	Feb. 24	2756	682	54	1072
Campbell, George T., assignor of one-half to J. Campbell, San Francisco, Cal. Ladder	451,893	May 5	676	171	55	707
Campbell, George W., Lima, Ohio. Corn-planter	458,096	Aug. 18	1905	496	56	910
Campbell, George W. and J. D. Hough, Lowville, N. Y. Corkscrew	445,539	Feb. 3	17	4	54	514
Campbell, Harry C., Pittsburg, Pa. Incandescent burner and method of using the same	447,757	Mar. 10	778	193	54	1272
Campbell, Hardy W., Racine, Wis., assignor of one-half to C. J. Stromberg, Chicago, Ill. Safety money-order	456,885	July 28	2555	671	56	509
Campbell, Henry, London, England, assignor to Box Machinery Company, Baltimore, Md. Wire nail and machine for making the same	450,990	Apr. 21	2094	{ 516 517 }	55	421
Campbell, James. (See Campbell, George T., assignor.)						
Campbell, James, Harrison, Ohio. Covering-wheel for drills, &c.	447,938	Mar. 10	1096	275	54	1332
Campbell, James A., assignor of one-half to J. M. Lockhart, New Orleans, La. Turn-table for sawing machines	454,426	June 16	1875	{ 490 491 }	55	1521
Campbell, James A., assignor of one-half to J. M. Lockhart, New Orleans, La. Barrel-head wedge	455,607	July 7	504	131	56	97
Campbell, James O., Colton, Utah Ter. Ore-washer	455,654	July 7	575	149	56	111
Campbell, James W., Germantown, assignor to Ferguson Brothers, New York, N. Y. Folding screen	447,461	Mar. 3	314	78	54	1177
Campbell, James W., Germantown, assignor to Ferguson Brothers, New York, N. Y. Bracket for easels	464,660	Dec. 8	1003	250	57	1336

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Campbell, John. (See Moore and Campbell.)						
Campbell, John. (See Yeaton, Joseph H., assignor.)						
Campbell, John B., <i>et al.</i> (See Robertson, James H., assignor.)						
Campbell, John S., London, England. Artificial tooth.	465,457	Dec. 22	2314	594	57	1604
Campbell, John S., London, England. Artificial tooth.	465,458	Dec. 22	2315	594	57	1605
Campbell, John S., London, England. Artificial tooth.	465,459	Dec. 22	2316	595	57	1605
Campbell, John S., London, England. Artificial tooth.	465,460	Dec. 22	2318	595	57	1605
Campbell, John S., London, England, assignor to Carroll Aluminum Manufacturing Company, New York, N. Y. Driving-wheel for dental engines.	445,879	Feb. 3	602	148	54	630
Campbell, John S., London, England, assignor to Carroll Aluminum Manufacturing Company, New York, N. Y. Flexible shaft.	449,068	Mar. 24	2906	737	54	1698
Campbell, John S., London, England, assignor to Carroll Aluminum Manufacturing Company, E. A. Peirce, New York, and J. O. Cox, Brooklyn, N. Y. Dental engine.	461,146	Oct. 13	911	236	57	182
Campbell, John S., London, England, assignor to J. O. Cox, Brooklyn, E. A. Peirce, and Carroll Aluminum Manufacturing Company, New York, N. Y. Flexible driving-shaft.	459,152	Sept. 8	956	231 232	56	1259
Campbell, Justin S. (See Williams, Homer K., assignor.)						
Campbell Machine Company. (See Campbell, Duncan H., assignor.)						
Campbell Machine Company. (See Wheeler, Cephas E., assignor.)						
Campbell, Malcolm Y., Milwaukee, Wis. Railway-mileage ticket.	445,368	Jan. 27	2211	573	54	458
Campbell, Mark, Chicago, Ill. Curling-iron.	463,328	Nov. 17	1762	461	57	908
Campbell, Mark, Chicago, Ill. Crimping and curling iron.	466,057	Dec. 29	3306	844	57	1805
Campbell, Matthew P., Glasgow, Scotland, assignor to himself and J. Rutherford, Spokane Falls, Wash. Toothed gearing.	456,796	July 28	2401	632	56	482
Campbell, Michael, assignor of one-half to A. H. Wellbrock, Boston, Mass. Signal apparatus.	445,794	Feb. 3	465	114	54	602
Campbell, Myron A., Syracuse, N. Y. Show-case.	464,148	Dec. 1	211	50	57	1176
Campbell, Neil. (See Foster, Benjamin C., assignor.)						
Campbell, Patterson A., <i>et al.</i> (See Davis, John T., assignor.)						
Campbell Printing Press and Manufacturing Company. (See Hawkins, William C., assignor.)						
Campbell Printing Press and Manufacturing Company. (See Hawkins, Hueson, and Yates, assignors.)						
Campbell, William, New York, N. Y. Refrigerator.	460,808	Oct. 6	427	106	57	85
Campbell, William A., Portland, Oreg. Saw-guide.	449,844	Apr. 7	307	80	55	60
Campbell, William F. (See Bartley and Campbell.)						
Campbell, William H., New York, N. Y. Railway-ticket.	453,037	May 26	2572	650	55	1088
Campbell, William H., New York, N. Y. Railway-ticket.	455,655	July 7	577	150	56	112
Campbell, William J., Reed's Gap, Pa. Washing-machine.	460,387	Sept. 29	2896	723 724	56	1652
Campbell, William O. (See Newman, Thomas, assignor.)						
Canada, Adolphus G., Horn Lake, Miss. Car-coupling.	449,928	Apr. 7	425	106	55	83
Canaday, Winfield S., Florence, Ala. Pan for baking cakes, puddings, &c.	465,425	Dec. 15	2262	581	57	1584
Canan, James, Port Colborne, Canada. Machine for boring soil.	460,369	Sept. 29	2873	717	56	1648
Canary, François L. A., Draguignan, France. Dog-muzzle.	459,609	Sept. 15	1683	421	56	1407
Canby, Edward. (See Ozias and Canby.)						
Canby, Edward. (See Sanderson and Ozias, assignors.)						
Canda, Ferdinand E., <i>et al.</i> (See Titus, Ivor R., assignor.)						
Canda, Ferdinand E., New York, N. Y. Cattle-car.	449,203	Mar. 31	3122	788	54	1747
Canda, Ferdinand E., New York, N. Y. Cattle-car.	450,504	Apr. 14	1302	319	55	257
Canda, Ferdinand E., New York, N. Y. Gondola-car.	453,900	June 9	1100	288	55	1364
Canda, Ferdinand E., New York, N. Y. Cattle-car.	456,399	July 21	1743	460	56	349
Canda, Ferdinand E., New York, N. Y. Draw-bar and spring.	460,426	Sept. 29	2947	736 737 712 713	56	1662
Canda, Ferdinand E., New York, N. Y. Car-wheel chill.	463,940	Nov. 24	2747	712 713	57	1105
Canda, Ferdinand E., assignor to Suspension Car Truck Manufacturing Company, New York, N. Y. Car-truck.	461,318	Oct. 13	1196	304	57	239
Canda, Ferdinand M., New York, N. Y. Floor for cattle cars.	465,751	Dec. 22	2785	711	57	1695
Candee, William N., Buffalo, N. Y. Extension-step for cars.	464,491	Dec. 8	746	182	57	1286
Canedy, William E., Downer's Grove, Ill. Device for converting motion.	445,922	Dec. 3	662	161	54	642
Canedy, William E., Downer's Grove, Ill. Friction-clutch.	464,492	Dec. 8	747	182	57	1286
Canet, Jean B. G. A., Paris, France, assignor of one-half to J. Whitworth & Company, Limited, Openshaw, England. Recoil-check for disappearing-gun carriages.	447,227	Feb. 24	2847	706 707	54	1090
Canet, Jean B. G. A., Paris, France, assignor of one-half to J. Whitworth & Company, Limited, Openshaw, England. Breech-loading ordnance.	447,228	Feb. 24	2850	707	54	1090
Canet, Jean B. G. A., Paris, France, assignor of one-half to J. Whitworth & Company, Limited, Openshaw, England. Armored turret.	453,545	June 2	573	146 147	55	1256
Canet, Jean B. G. A., Paris, France, assignor of one-half to J. Whitworth & Company, Limited, Manchester, England. Gun-carriage.	455,166	June 30	3138	797 798	55	1774
Canet, Jean B. G. A., Paris, France, assignor of one-half to J. Whitworth & Company, Limited, Openshaw, England. Hydraulic brake for ordnance.	456,016	July 14	1151	301 302	56	227
Canfield, Hobart, Morristown, N. J. Balanced valve for steam-engines.	448,876	Mar. 24	2623	659	54	1642
Canfield, Horace G., Akron, Ohio. Registering apparatus for street-cars.	447,806	Mar. 10	878	219	54	1201
Cannell, William, Hartford, Conn. Apparatus for electric branding.	445,648	Feb. 3	208	55	54	553
Canning, William P., assignor to Lowell Machine Shop, Lowell, Mass. Traveling-flat carding-engine.	451,367	Apr. 28	2682	665	55	544
Canning, William P., assignor to Lowell Machine Shop, Lowell, Mass. Traveling-flat carding-engine.	453,060	May 26	2613	661	55	1096
Canning, William P., assignor to Lowell Machine Shop, Lowell, Mass. Traveling-flat carding-engine.	453,061	May 26	2615	661	55	1096
Canning, William P., Lowell, and C. Whitaker, Tyngsborough, assignors to Lowell Machine Shop, Lowell, Mass. Traveling-flat carding-engine.	451,416	Apr. 28	2758	682	55	558
Cannon, Charles A. (See Stoltz and Cannon.)						
Cannon, Clinton D., Battle Creek, Mich. Mold for metallic wheels.	465,016	Dec. 15	1587	404	57	1458
Cannon, Frederick C., New Haven, Conn. Die for forming carriage-lamp linings.	457,557	Aug. 11	1040	267	56	736
Cantelo, John S., Boston, Mass. Drawing-knife.	448,633	Mar. 24	2237	561 562	54	1569
Cantelo, John S., Boston, Mass. Drawing-knife.	454,848	June 30	2554	657	55	1662
Canterbury, Crawford R., Brownwood, Tex. Burglar-alarm.	450,282	Apr. 14	952	236 237	55	190
Canterbury (N. Z.) Seed Company. (See Lees and Lester, assignors.)						
Canton Steel Roofing Company. (See Belding, Thomas C., assignor.)						
Canuteson, Ole, Waco, Tex. Cotton-picker finger.	464,852	Dec. 8	1299	325	57	1393
Capehart, Baldy A., assignor of one-half to R. L. Magruder, Washington, D. C. Eyeglasses.	457,253	Aug. 4	511	134 135	56	628

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Capehart, Baldy A., Washington, D. C., assignor of one-half to P. W. Capehart, Raleigh, N. C. Automatic boat-detaching apparatus.....	460,556	Oct. 6	18	5	57	6
Capehart, Poindexter W. (See Capehart, Baldy A., assignor.)						
Cápek, John J., assignor of one-half to E. H. Johnson, New York, N. Y. Electrical heater.....	449,035	Mar. 24	2855	726	54	1689
Cápek, John J., assignor of one-half to E. H. Johnson, New York, N. Y. Electrical heater.....	449,036	Mar. 24	2857	726	54	1689
Cápek, John V., New York, N. Y. Electric heater.....	461,814	Oct. 27	2076	513	57	419
Capek, John V., New York, N. Y. Electric cooking-stove.....	462,532	Nov. 3	490	120	57	645
Capewell, George J., Hartford, Conn. Nail-extractor.....	444,948	Jan. 20	1573	403	54	322
Capitaine, Emil, Eilenburg, Germany. Lamp for effecting the ignition of vapor in gas or other motors.....	448,293	Mar. 17	1689	427	54	1458
Capitol Manufacturing Company. (See Cook, Frank S., assignor.)						
Cappon, Thomas W., Brooklyn, N. Y. Producing hydrofluosilicic acid.....	461,665	Oct. 20	1828	-----	57	364
Capron, Elisha P. H., Norwalk, Conn. Stop-cock box.....	450,140	Apr. 14	728	183	55	148
Caps, John E. (See Carlton, Caps, and Rose.)						
Car Truck Supply Company. (See Zimmerman, Arnold W., assignor.)						
Carberry, William H., Boston, Mass. Sewer-trap.....	464,240	Dec. 1	365	88, 89	57	1202
Carbine, John C., Atlanta, Ga. Railway-truck jack.....	446,378	Feb. 10	1434	352	54	797
Card Concentrator Company. (See Card, William L., assignor.)						
Card, Edward, Pawtucket, R. I. Letter-box.....	462,653	Nov. 3	674	170	57	681
Card, William L., La Crosse, Wis., assignor to Card Concentrator Company, of Colorado. Separator.....	448,472	Mar. 17	1970	{ 495 496 }	54	1511
Cardarelli, Emilio, Sumter, S. C. Crane for electric lamps.....	452,211	May 12	1240	313 { 670 671 672 673 674 675 }	55	816
Carey, William, Southampton, England. Diving-dress.....	462,202	Oct. 27	2679	{ 158 159 }	57	535
Carey, William, Southampton, England. Pipe-coupling.....	462,621	Nov. 3	628	{ 58 59 60 }	57	672
Carey, William, assignor to himself, T. Hocking, W. Carson, and W. R. Hamilton, Montreal, Canada. Machine for uniting the soles and uppers of boots and shoes.....	444,126	Jan. 6	241	{ 39 40 }	54	50
Carey, Wilson W., Lowell, Mass. Self-lubricating device for pulleys.....	444,812	Jan. 20	1303	339	54	272
Carhart, Clarence M., Plainfield, N. J. Friction-clutch.....	445,496	Jan. 27	2394	{ 622 623 }	54	492
Carl, John A., Bridgeport, Pa. Railway-tie.....	464,552	Dec. 8	838	207	57	1304
Carl, Loris P., Perris, Cal. Tether-pin.....	444,661	Jan. 13	1057	275	54	217
Carl, Reinhold A., Hearn, Tex. Riveting machine.....	455,167	June 30	3140	798	55	1775
Carleton, Andrew J., assignor to E. J. Piper, Springfield, Mass. Paper-ruling machine.....	449,614	Mar. 31	3823	958	54	1876
Carleton, David E., et al. (See Miller, James B., assignor.)						
Carleton, Thomas L., assignor of one-half to W. H. Bofinger, New Orleans, La. Railway-switch.....	453,690	June 9	808	206	55	1309
Carlie, George F., New York, N. Y. Cigar-bunching machine.....	457,847	Aug. 18	1501	{ 391 392 }	56	833
Carlile, Alexander W. (See Miller and Carlile.)						
Carlín, David, Pittsburgh, Pa. Molding apparatus.....	444,588	Jan. 13	957	248	54	198
Carlisle, H. L., et al. (See Parker, James, assignor.)						
Carlisle, William G. (See Blackwell and Carlisle.)						
Carlough, Daniel. (See Cooke and Carlough.)						
Carlsen, Andrew M. (See Sundeen, Molander, Anderson, and Carlsen.)						
Carlson, Anders V., et al. (See Nygren, Axel T., assignor.)						
Carlson, Charles. (See Jackson and Carlson.)						
Carlson, Charles J., Cokato, Minn. Curry-comb and cleaner.....	461,543	Oct. 20	1636	400	57	328
Carlson, Conrad, Brooklyn, N. Y. Mortar-hod.....	456,504	July 21	1911	506	56	381
Carlson, John E., Appleton, Minn. Draft-equalizer.....	444,877	Jan. 20	1446	376	54	299
Carlstrom, Carl J., Jamestown, assignor of one-fifth to W. Fowler, New York, N. Y. Carving-machine.....	461,215	Oct. 13	1041	{ 264 265 }	57	206
Carlton, Cortland, J. E. Caps, and W. J. Rose, Kansas City, Mo. Stereotype-plate holder.....	459,825	Sept. 22	2033	510	56	1481
Carlton, Joseph A., and H. L. Johnston, Atlanta, Ga. Automatic electric block system.....	449,731	Apr. 7	135	34	55	28
Carlton, Thomas W., et al. (See Holden, James, assignor.)						
Carman, Benjamin F., San Francisco, Cal. Receiver's cash box and tray.....	451,317	Apr. 28	2613	645	55	531
Carman, Clarence A., Paterson, N. J. Vehicle-wrench.....	453,576	June 2	621	158	55	1264
Carmichael, Henry, Malden, Mass. Machine for molding pulp articles.....	454,849	June 30	2555	{ 657 658 }	55	1663
Carmichael, Henry, Malden, Mass., assignor to United Indurated Fibre Company, Portland, Me. Last.....	460,067	Sept. 22	2398	600	56	1549
Carmody, John T., assignor of one-fourth to D. C. H. Ross, Cedar Rapids, Iowa. Pulley.....	453,075	May 26	2642	666	55	1101
Carnahan, Alphretta, et al. (See Carnahan, Cyrus M., assignor.)						
Carnahan, Charles M., Newport, Ky., assignor to Globe Company, Cincinnati, Ohio. File-box and manufacturing the same.....	451,726	May 5	433	105	55	661
Carnahan, Cyrus M., assignor to A. Carnahan, Corapolis, and J. C. Young, Robinson Township, Pa. Apparatus for forming tapering pipe.....	455,274	June 30	3315	{ 838 839 }	55	1808
Carnahan, Cyrus M., assignor to A. Carnahan, Corapolis, J. S. Young, Allegheny, M. A. Woodward, Pittsburgh, Pa., and J. C. Young. Car-coupling.....	454,711	June 23	2330	589	55	1614
Carpenter, Benjamin F., Roselle, N. J. Holder for postage-stamps or other articles.....	447,663	Mar. 3	623	155	54	1236
Carpenter, Charles E., Minneapolis, Minn. Electro-heating apparatus.....	447,023	Feb. 24	2432	618	54	1021
Carpenter, Charles E., assignor to Carpenter-Nevens Electro-Heating Company, Minneapolis, Minn. Electric sad-iron.....	448,317	Mar. 17	1725	437	54	1465
Carpenter, Charles W., et al. (See Crowell, Luther C., assignor.)						
Carpenter, Charlie A., Baldwinville, N. Y. Tile-tamping machine.....	459,390	Sept. 15	1336	335	56	1342
Carpenter, Clarence E., assignor of one-third to J. M. Vangorden, Horseheads, N. Y. Thill-coupling.....	446,323	Feb. 10	1357	331	54	781
Carpenter, Clarence E., Horseheads, assignor of one-half to J. M. Vangorden, Breesport, N. Y. Eyeglass-holder.....	452,747	May 19	2109	531	55	990
Carpenter, Clarence E., assignor to J. M. Vangorden, Horseheads, N. Y. Pencil-sharpener. (Reissue).....	11,195	Sept. 29	3152	788	56	1703
Carpenter, Daniel H., Orlando, Fla. Combined nut and pipe wrench.....	446,324	Feb. 10	1358	331	54	781
Carpenter, Daniel H., Orlando, Fla. Engineer's wrench.....	463,137	Nov. 17	1460	378	57	852
Carpenter, Edmund H., Jackson, Mich. Side-spring vehicle.....	452,990	May 26	2503	634	55	1074
Carpenter, Fred H., assignor to Russell Electric Company, Boston, Mass. Electric-arc lamp.....	462,660	Nov. 3	684	173	57	682
Carpenter, Fred H., assignor to Russell Electric Company, Boston, Mass. Electric-arc lamp.....	462,661	Nov. 3	685	173	57	683
Carpenter, George J., assignor to Hincks & Johnson, Bridgeport, Conn. Carriage-top.....	448,931	Mar. 24	2697	680	54	1658
Carpenter, Halsey K., Palenville, N. Y. Pipe-wrench.....	464,192	Dec. 1	286	70	57	1188

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Carpenter, Hiram H., Chicago, Ill. Electric lamp for street-lighting.....	450,000	Apr. 7	527	131	55	102
Carpenter, James E., assignor to Berlin Machine Works, Beloit, Wis. Wood-polishing machine.....	449,666	Apr. 7	32	7	55	8
Carpenter, James H., Ulysses, Nebr. Washing-machine.....	444,813	Jan. 20	1304	339	54	272
Carpenter, James H., Chicago, Ill. Combined index and register.....	449,105	Mar. 31	2963	750	54	1718
Carpenter, James H., assignor of one-half to M. Herzberg, J. A. Erwin, West Point, C. R. King, Atlanta, Ga., and K. Williams, New Orleans, La. Automatic stock-feeder.....	449,631	Mar. 31	3856	965	54	1883
Carpenter, James M., Pawtucket, R. I. Die-stock.....	458,220	Aug. 25	2106	546	56	955
Carpenter-Nevens Electro-Heating Company. (See Carpenter, Charles E., assignor.)						
Carpenter, Rolla C., Lansing, Mich. Pipe-hanger.....	447,297	Mar. 3	19	6	54	1122
Carpenter, Warren. (See Beach, Ralph H., assignor.)						
Carpenter, Wilbur M., St. Louis, Mo. Short-hand machine.....	453,233	June 2	79	21, 22	55	1163
Carpenter, Willard C., St. Johnsbury, Vt. Motor.....	452,832	May 26	2236	561	55	1024
Carr, Alexander, Chambersville, Ark. Cotton-chopper.....	451,663	May 5	338	83	55	643
Carr, Artemas S., et al. (See Lovett, Eliphalet R., assignor.)						
Carr, Asmus J. (See King and Carr.)						
Carr, Bruce, et al. (See Mains, John F., assignor.)						
Carr, Charles, Boston, Mass. Cash indicator and register.....	458,615	Sept. 1	103	23, 24	56	1086
Carr, O. W., et al. (See Rothrock, Charles N., assignor.)						
Carr, Obed W. (See Greer, John, assignor.)						
Carr, Robert S., assignor of one-half to J. E. Neal, Hamilton, Ohio. Magnetized head for drawing-instruments.....	456,553	July 28	2000	528	56	406
Carr, Robert S., assignor of one-half to J. E. Neal, Hamilton, Ohio. Magnetized head for drawing-instruments. (Reissue).....	11,189	Sept. 15	1884	474	56	1445
Carr, Robert S., and E. J. Schroder, Hamilton, Ohio. Reversing mechanism.....	465,920	Dec. 29	3056	783	57	1756
Carr, Walter S., Andover, N. H. Hame.....	445,584	Feb. 3	104	25	54	531
Carr, Warren H., assignor of twenty-three fortieths to C. A. Hooker and D. J. Tabor, Bath, Me. Dead-eye.....	455,275	June 30	3316	839	55	1808
Carr, Warren H., assignor of one-half to J. D. Robinson, Bath, Me. Keel-block.....	464,921	Dec. 8	1333	351	57	1410
Carr, William, M. E. B. Hahn, and J. B. Jackson, Tyrone, Ky. Foot-warmer.....	463,094	Nov. 10	1381	357	57	828
Carrara, Arthur, Governor Lane, Gibraltar. Apparatus for recording fares by omnibuses, &c.....	445,042	Jan. 20	1719	442	54	351
Carrer, Leo, Dusseldorf, Germany. Paper-cutting machine.....	445,923	Feb. 3	662	162	54	642
Carrick, Thomas J., assignor to Snowden & Cowman, Baltimore, Md. Dental vulcanizer.....	464,922	Dec. 8	1394	351	57	1410
Carrico, Francis A., et al. (See Carrico, Thomas W., assignor.)						
Carrico, Henry F., Paducah, Ky. Washing-machine.....	460,945	Oct. 13	633	163	57	130
Carrico, Thomas W., assignor of one-third to F. A. and T. W. Carrico, San Antonio, Tex. Construction of privy-vaults.....	445,848	Feb. 3	557	136	54	620
Carrico, Thomas W., assignor of one-third to F. A. and T. W. Carrico, Jr., San Antonio, Tex. Odorless dry outhouse and refuse-burner.....	462,891	Nov. 10	1074	279	57	767
Carrier, James W. (See Miller, Robert S., assignor.)						
Carroll Aluminum Manufacturing Company. (See Campbell, John S., assignor.)						
Carroll Aluminum Manufacturing Company. (See Richmond, Cassius M., assignor.)						
Carroll, Charles E., New Haven, Conn. Alarm-bell.....	459,778	Sept. 22	1956	494	56	1466
Carroll, Edward, and T. B. Lambert, Chicago, Ill. Joint for electric conductors.....	452,516	May 19	1743	438	55	918
Carroll, J. Y. (See Murphy, Thomas A. and J. H., assignors.)						
Carroll, James W. (See Lurty, Charles W., assignor.)						
Carroll, John B., Albany, N. Y. Sink-trap.....	460,557	Oct. 6	19	5	57	6
Carroll, Peter. (See Osborne, Thomas D., assignor.)						
Carroll, Richard. (See Bentley, Squire and A., assignors.)						
Carroll, William C., and B. F. Hales, Chicago, Ill. Surgical pump.....	444,690	Jan. 13	1109	287	54	227
Carroll, William R., Pelican, La. Steam-valve.....	463,138	Nov. 17	1462	379	57	852
Carroll, William T., Worcester, Mass. Reversing mechanism for counter-shafts.....	444,814	Jan. 20	1305	339	54	272
Carroll, William T., Worcester, Mass. Saddle for top rolls of spinning-machines.....	453,854	June 9	1039	272	55	1354
Carruthers, George F., Winnipeg, Canada. Collar and uelctie holder.....	461,319	Oct. 13	1197	305	57	240
Carruthers, William R. (See Stevens and Carruthers.)						
Carson, George. (See Duncan, Wilson, assignor.)						
Carson, John M., Danville, Ill. Water-heater for stoves, ranges, or furnaces.....	453,855	June 9	1040	272	55	1354
Carson, William, et al. (See Carey, William, assignor.)						
Carswell, Morris, Glasgow, Scotland. Artificial fishing-bait.....	449,519	Mar. 31	3663	920	54	1847
Carter, Albert J., Frankfort, Ind. Stave-sawing machine.....	457,396	Aug. 11	791	203	56	687
Carter, Alfred G., Webb City, Mo. Sinking shafts in the earth.....	457,770	Aug. 18	1378	356	56	810
Carter & Company. (See Macdonald, Thomas J. A., assignor.)						
Carter, Edward C., Chicago, Ill. Railway-signal.....	448,773	Mar. 24	2461	615	54	1612
Carter, Edward D., Cele-re, Tex. Combined cotton and corn planter.....	445,635	Feb. 3	182	48	54	547
Carter, George S., Minneapolis, Minn. Cigar sample-box.....	453,691	June 9	809	207	55	1309
Carter, Harold M. (See Proctor, Fraser, Carter, and Middleton.)						
Carter, James, Eureka, Ohio. Tricycle.....	450,001	Apr. 7	528	131	55	102
Carter, James, Eureka, Ohio. Sleigh.....	453,546	June 2	576	147	55	1257
Carter, John T., North Danville, assignor to Carter Machine Company, Danville, Va. Tobacco-spraying machine.....	446,347	Feb. 10	1237	302	54	757
Carter, John W., Newton, Mass. Inkstand.....	462,856	Nov. 10	1015	261	57	756
Carter, John W., Newton, Mass. Stopper.....	462,857	Nov. 10	1016	262	57	756
Carter, Joseph and T., Rochdale, England. Tool and tool-holder for slotting-machines.....	458,616	Sept. 1	107	24	56	1087
Carter, Lyman. (See Carter, Willis and L.)						
Carter Machine Company. (See Carter, John T., assignor.)						
Carter, Michael, Jr., assignor of one-half to C. T. Brown, Chicago, Ill. Draft apparatus for cars.....	451,851	May 5	611	152	55	695
Carter, Robert A., Pittsburg, Pa. Steam-engine.....	466,118	Dec. 29	3389	867	57	1821
Carter, Seth M., Jamesport, Mo. Cutting apparatus.....	452,212	May 12	1241	313	55	816
Carter, Thomas. (See Carter, Joseph and T.)						
Carter, William B. (See Higgins, Charles L., assignor.)						
Carter, William L., Cedar Falls, Iowa. Furnace.....	459,675	Sept. 15	1799	452	56	1429
Carter, Willis and L., Spokane Falls, Wash. Rotary engine.....	448,121	Mar. 10	1372	351	54	1388
Cartledge, Robert L., Philadelphia, Pa. Sock or stocking.....	456,476	July 21	1868	494	56	373
Cartwright, Adam Y. (See Hoke and Warren, assignors.)						
Cartwright, Burr E. (See McEwen and Cartwright.)						
Cartwright, David J. (See Potter and Cartwright.)						
Cartwright, David J., Boston, assignor to J. S. Potter, Newton, Mass. Ceiling-rosette for incandescent lamps.....	450,991	Apr. 21	2098	517	55	422

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Cartwright, George J., Sydney, New South Wales. Boiler-furnace	460,359	Sept. 29	2860	712	56	1646
Cartwright, George J., Sydney, New South Wales. Boiler and boiler-furnace	465,831	Dec. 29	2908	745	57	1729
Cartwright, John T., Hyde, and R. Wallwork, Manchester, England. Apparatus for ap- plying skins, &c., to inking-rollers	464,093	Dec. 1	132	32, 33	57	1162
Carty, John J., New York, N. Y., assignor, by mesne assignments, to American Bell Tele- phone Company, Boston, Mass. Telephone circuit and apparatus	449,106	Mar. 31	2966	{ 750 751 }	54	1718
Carver, George H. (See Carver, James W., assignor.)						
Carver, George H., assignor to Plano Manufacturing Company, Plano, Ill. Harvester- wheel	463,739	Nov. 24	2429	637	57	1045
Carver, Henry C., Manchester, England. Apparatus for extinguishing fires	447,601	Mar. 3	537	{ 132 133 }	54	1218
Carver, James W., Pawlet, Vt. Hammer	463,417	Nov. 17	1915	500	57	938
Carver, James W., Pawlet, Vt., assignor, by mesne assignments, of two-thirds to G. H. Carver, National City, Cal. Rifled gun-barrel	460,102	Sept. 22	2453	613	56	1560
Carver, James W., Pawlet, Vt., assignor to himself, and G. L. Kely, Brooklyn, N. Y. Ax Carver, James W., Pawlet, Vt., assignor to himself, and G. L. Kely, Brooklyn, N. Y. Gun- sight	445,160	Jan. 27	1907	492	54	397
Carver, William, Scottsville, N. Y. Bean-harvester and weed-cutter	453,828	June 9	1012	264	55	1348
Carwell, Jacob B., Middlebrook, Va. Railway-signal	447,602	Mar. 3	540	{ 133 134 }	54	1219
Cary, Alanson, New York, N. Y., assignor to Union School Furniture Company, Battle Creek, Mich. School-desk seat	445,946	Feb. 3	701	171	54	650
Cary Safe Company. (See Goshier, George J. H., assignor.)						
Cary, Spencer C., Baldwin, N. Y. Box-strap	450,753	Apr. 21	1706	413	55	349
Cary, William H. (See Locke, Cary, and Kimball.)						
Cary, William N., Mechanicsville, assignor of one-half to W. L. Haskin, Granville, N. Y. Window-blind	448,177	Mar. 10	1465	373	54	1406
Casazza, August, Hoboken, N. J. Car-wheel	450,967	Apr. 21	2058	507	55	415
Case, Charles A., New York, N. Y. Reversing and brake mechanism for hoisting apparatus	448,909	Mar. 24	2668	670	54	1651
Case, Dudley W., Bay City, Mich. Boom-stick	455,996	July 14	1117	293	56	220
Case, Frank B., and J. Schade, Brooklyn, N. Y. Cylinder-lock	464,853	Dec. 8	1300	326	57	1393
Case, Frank E., Canton, Ohio. Dental chair	455,168	June 30	3143	{ 798 799 }	55	1775
Case, George F., <i>et al.</i> (See Hicks, Thomas H., assignor.)						
Case, George R. (See Peck and Case.)						
Case, Lewis F., Jr., Goshen, Ind. Vehicle running-gear	461,110	Oct. 13	864	222	57	173
Case, Manning H., <i>et al.</i> (See Bangs, Edwin D., assignor.)						
Case, Manning H. (See Farmer, Julius M., assignor.)						
Case, William E., <i>et al.</i> (See Banks, George L., assignor.)						
Casey, Denis. (See Millen, Casey, and Mantion.)						
Casey, J. F., <i>et al.</i> (See Egan, Charles E., assignor.)						
Casey, James H. (See Byrne, Nicholas J., assignor.)						
Casey, John, Philadelphia, Pa. Eyeglass-case	460,330	Sept. 29	2813	700	56	1637
Cash, Arthur W., assignor to Armstrong Manufacturing Company, Bridgeport, Conn. Nipple-chuck	452,768	May 26	2143	537	55	1005
Cash, Arthur W., assignor to Armstrong Manufacturing Company, Bridgeport, Conn. Nipple-chuck	452,769	May 26	2144	537	55	1005
Cash, Arthur W., assignor to Armstrong Manufacturing Company, Bridgeport, Conn. Nipple-chuck	452,770	May 26	2145	537	55	1005
Cash, Arthur W., assignor to Armstrong Manufacturing Company, Bridgeport, Conn. Ma- chine for cutting dies, taps, &c.	454,029	June 16	1280	{ 333 334 }	55	1408
Cash, Francis C. (See Hunt and Cash.)						
Cash, Francis C., Lynn, Mass. Safety-gate for street-cars	450,556	Apr. 14	1367	337	55	270
Cash, Francis C., assignor of one-half to C. B. Lord, Lynn, Mass. Gate	446,325	Feb. 10	1360	331	54	781
Cash, Francis C., assignor of one-half to C. B. Lord, Lynn, Mass. Switching device for cars	451,888	May 5	670	169	55	706
Cash, Francis C., Lynn, Mass., assignor to Cash Safety Car Company, Portland, Me. Rail- way-gate	466,156	Dec. 29	3457	884	57	1834
Cash, Francis C., assignor of two-thirds to J. C. Lewis and C. B. Lord, Lynn, Mass. Rail- way-car gate	456,017	July 14	1156	302	56	227
Cash, Lewis G., Russellville, Mo. Table-leaf support	447,758	Mar. 10	779	193	54	1273
Cash Safety Car Company. (See Cash, Francis C., assignor.)						
Cashion, Patrick W., Glens Falls, N. Y. Horse-tracking device for vehicles	445,510	Feb. 3	18	4, 5	54	514
Cashion, Patrick W., Glens Falls, N. Y. Horse-training device	464,113	Dec. 1	158	39	57	1167
Cashman, John, Providence, R. I. Shedding mechanism for looms	454,252	June 16	1600	421	55	1470
Cashman, Michael H. (See Jordan, Edmund, assignor.)						
Cashman, Michael H. (See Templin, Joseph H., assignor.)						
Casler, Alonzo A., Otto, N. Y. Washing-machine	466,002	Dec. 29	3220	820	57	1786
Casler, Benjamin G., Cleveland, Ohio. Show-rack for store-windows, &c.	444,815	Jan. 20	1306	{ 339 340 }	54	272
Caspar, Henry, New Orleans, La. Clasp for awning-poles	461,069	Oct. 13	809	206	57	163
Caspersson, Edward. (See Zellers, Robert E., assignor.)						
Caspersson, Carl A., Forsbacka, Marzretchill, Sweden. Method of and apparatus for de- termining the temper of steel	458,784	Sept. 1	355	86	56	1133
Cass, Marcus M., Jr., Watkins, N. Y. Fish-hook	446,827	Feb. 17	2138	531	54	950
Cassagnes, Gilbert A., Paris, France. Printing telegraphic apparatus	460,349	Sept. 29	2842	{ 707 708 }	56	1643
Cassagnes, Gilbert A., Paris, France. System of synchronism for telegraphy	465,832	Dec. 29	2909	{ 745 746 }	57	1729
Cassell, Isaac B., <i>et al.</i> (See Singer, Jacob, assignor.)						
Cassella & Co., Leopold. (See Gans, Leo, assignor.)						
Cassella & Co., Leopold. (See Hoffmann, Meinhard, assignor.)						
Cassella & Co., Leopold. (See Weinberg, Arthur, assignor.)						
Casselman, Daniel E., and E. H. Fletcher, Evening Shade, Ark. Flood-fence	446,111	Feb. 10	982	241	54	710
Casselman, George A., Fort Dodge, Iowa. Compound for calcimine	444,776	Jan. 13	1249	.....	54	252
Casselman, George A., Fort Dodge, Iowa. Composition of matter for whitening	454,152	June 16	1462	.....	55	1443
Cassidy, Isabel, assignor to London Toilet Bazar Company, New York, N. Y. Nail-file for toilet use	448,409	Mar. 17	1875	471	54	1494
Cassidy, Jacob H., Leavenworth, Kans. Tongue-support	458,690	Sept. 1	223	52	56	1108
Cassidy, John, <i>et al.</i> (See Fitzpatrick and Ring, assignors.)						
Casill, John M. (See Geiger, Harry M., assignor.)						
Cassetty, W. M., <i>et al.</i> (See Speaker, Charles E., assignor.)						
Castano, Gabriel, and G. L. de Lara, Guadalajara, Mexico. Juice-extractor	452,213	May 12	1242	313	55	816
Castberg, John, <i>et al.</i> (See Garner, William K., assignor.)						
Castelnau, Marcelin, Paris, France. Ore-concentrator	446,055	Feb. 10	895	217	54	693

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Castelnau, Marcelin, Paris, France. Ore-concentrator	446,963	Feb. 24	2381	{ 592 593	54	1002
Castilho, Severianno A. de, Newcastle-on-Tyne, England. Fire-escape	451,852	May 5	613	152	55	696
Castle, Justus. (See Pike and Castle.)						
Castle, Oliver H., Indianapolis, Ind. Ice-machine	462,689	Nov. 10	750	{ 195 196	57	704
Castner, Hamilton Y., London, England. Manufacturing sodium and potassium	452,030	May 12	915	233	55	759
Castor, Lewis D., assignor to W. H. Weston & Co., Philadelphia, Pa. Electric switch	457,301	Aug. 4	598	156	56	644
Castor, Lewis D., assignor to W. H. Weston & Co., Philadelphia, Pa. Electric switch	459,219	Sept. 8	1060	258	56	1278
Caswell, Myron J., Castalia, Ohio. Distributing liquid poison	453,406	June 2	350	91	55	1213
Caswell, Myron J., Castalia, Ohio. Sprinkler-nozzle	458,014	Aug. 18	1789	467	56	886
Caswell, Myron J., Sandusky, Ohio. Spraying device for vines, shrubs, &c	459,573	Sept. 15	1625	407	56	1396
Cate, George H., Cheboygan, Mich. Spool-holder	462,622	Nov. 3	632	160	57	673
Catlett, Herald, and E. Robertson, Fairmount, Ill. Flood-fence	449,204	Mar. 31	3124	788	54	1248
Catlin, Abel D., assignor to K. L. Catlin, Chattanooga, Tenn. Resawing-machine	449,772	Apr. 7	198	50, 51	55	40
Catlin, Abel D., assignor to K. L. Catlin and L. Lyle, Chattanooga, Tenn. Insulator-pin machine	449,773	Apr. 7	200	51	55	41
Catlin, K. L. (See Catlin, Abel D., assignor.)						
Catlin, Robert M., Tuscarora, Nev. Recoil-operated magazine-gun	454,993	June 30	2841	723	55	1717
Catlin Tobacco Company. (See Hardy, Isham T., assignor.)						
Cattell, Charles F., Darby, Pa. Gas-generator	459,925	Sept. 22	2194	{ 551 552	56	1511
Catudal, Francis, and E. Drolet, Clyde, Kans. Letter-box	445,497	Jan. 27	2396	623	54	493
Cauldwell, James A., Owego, N. Y. Boiler	464,956	Dec. 15	1465	369	57	1435
Caulfield, Thomas, Baxter, Iowa. Hame-tug	465,040	Dec. 15	1629	414	57	1465
Cavalli, Joseph, London, England. Ornamenting iron tablets	465,833	Dec. 29	2913	746	57	1729
Cavanagh, Bartholomew, Dunkirk, N. Y. Steam-heating apparatus	448,932	Mar. 24	2698	680	54	1658
Cavanagh, Charles A., Lincoln, assignor to C. A. Luther & Co., Pawtucket, R. I. Cloth-stretching machine	463,658	Nov. 24	2304	605	57	1022
Cavanaugh, J. Burdett. (See Kingery and Cavanaugh.)						
Caven, John. (See Dillon Thomas, assignor.)						
Caven, John, Indianapolis, Ind. Condensing apparatus	455,471	July 7	272	69	56	55
Cavender, Thomas A., St. Louis, Mo. Lifting-jack	444,915	Jan. 20	1520	391	54	313
Cavert, William J., Albany, and W. P. Wiswall, West Troy, N. Y. Trolley for electric railways	447,632	Mar. 3	586	145	54	1228
Cavner, Alexander R., Chicago, Ill. Power-transmitting mechanism for cars	451,913	May 12	730	{ 183 184	55	724
Cawhern, John N. T., Atlanta, Ga. Hoist	464,929	Dec. 8	1403	354	57	1412
Cawley, Samuel H., Troy, Ohio. Fifth-wheel for vehicles	458,942	Sept. 1	614	151	56	1185
Cawley, Samuel H., assignor to W. Youtsey, Troy, Ohio. Gage and holder for welding tires, &c	464,427	Dec. 1	644	158	57	1257
Cayley, Claud T., and R. S. Courtman, London, England, assignors to E. W. Bliss Company, Limited, Brooklyn, N. Y. Shell	447,229	Feb. 24	2853	708	54	1091
Caylor, Henry M. (See Cook, Thomas R., assignor.)						
Dayton, James C., Thornton, Tex. Planter	447,759	Mar. 10	780	{ 193 194	54	1273
Celluloid Company. (See Hyatt, John W., assignor.)						
Celluloid Manufacturing Company. (See Todd, Edmund N., assignor.)						
Ceresole, Maurice, Neuville, France, assignor to Badische Anilin and Soda Fabrik, Ludwigshafen, Germany. Benzo-rhodamine	449,520	Mar. 31	3664	-----	54	1847
Ceresole, Maurice, Neuville, France, assignor to Badische Anilin and Soda Fabrik, Ludwigshafen, Germany. Red dye-stuff	456,081	July 14	1234	-----	56	243
Chable, August F., and E. M. Roberts, Marion, Kans., assignors to said Chable and J. C. Price, Evansville, Ind. Sad-iron heater	447,445	Mar. 3	285	72	54	1171
Chadborn, George L., Newburg, N. Y. Truck	460,741	Oct. 6	337	82	57	67
Chadbourne, Anne G., Roxbury, Mass. Water and like closet and article	461,734	Oct. 20	1934	479	57	383
Chadburn, William, Liverpool, England. Ship's telegraphic apparatus	451,754	May 5	480	119	55	669
Chadderton, John, and A. Hitchins, Philadelphia, Pa. Twisting-machine	457,181	Aug. 4	382	98	56	606
Chaddock, David C., Minerva, C. E. Sutton, Richmond, and A. C. McCullough, Knoxville, Ohio. Combined hay rake and loader	445,541	Feb. 3	19	5	54	514
Chaddock, William H., Cleveland, Ohio. Burette-clamp	462,032	Oct. 27	2417	599	57	485
Chadsey, William H. (See Rueping, Robert, assignor.)						
Chadwick, Ambrose B., Pullman, Ill. Wrench	451,024	Apr. 28	2150	531	55	441
Chaffin, John E. (See Totty and Chaffin.)						
Chaix, Alban, assignor to Société Anonyme Dite Imprimerie et Librairie Centrales des Chemins de Fer—Imprimerie Chaix, Paris, France. Consecutive-numbering attachment for paper-making machines	456,094	July 14	1247	{ 328 329	56	246
Chalk Rubber Company. (See Chalk, Timothy C., assignor.)						
Chalk, Timothy C., assignor to Chalk Rubber Company, Providence, R. I. Nipple for nursing-bottles	453,621	June 9	706	182	55	1290
Challiner, Charles, Longsight, England. Tire for vehicle-wheels	449,281	Mar. 31	3245	{ 821 822	54	1770
Chalmers, Alexander N., and J. R. Wallace, San Francisco, Cal. Clamp for planers or other machines	459,530	Sept. 15	1557	388	56	1383
Chamberlain, Albert N. (See Danforth, Delos A., assignor.)						
Chamberlain, Francis W., Bridgewater, Mass. Knife or scissors sharpener	446,551	Feb. 17	1721	422	54	866
Chamberlain, George H. (See Simonson, Flavel, assignor.)						
Chamberlain, Jacob C., New York, N. Y. Current-controlling device for electric-railway cars	447,230	Feb. 24	2854	{ 708 709	54	1091
Chamberlain, James, et al. (See Redican, Joseph, assignor.)						
Chamberlain, Thomas B. A., Toronto, Canada. Combined pen-holder, pen-nib extractor, and paper-knife	448,933	Mar. 24	2699	681	54	1658
Chamberlin, George S., New York, N. Y. Device for grating and delivering soap	445,769	Feb. 3	422	105	54	595
Chamberlin, George S., New York, N. Y. Bottle-stopper	455,737	July 14	727	191	56	148
Chamberlin, Henry G. (See Ryder and Chamberlin.)						
Chambers, Arthur M., and T. Smith, Thorncliffe, England. Coke-oven	459,064	Sept. 8	814	197	56	1231
Chambers, Bering, Quinlan Company. (See Rew, Madison, assignor.)						
Chambers, Cyrus, Jr., W. Mendham, and T. C. Damborg, Philadelphia, Pa., assignors to said Chambers. Machine for folding, pasting, trimming, and covering sheets of paper ..	445,498	Jan. 27	2397	{ 623 624 625 626 627	54	493
Chambers, George P. (See Wrigley and Chambers.)						
Chambers, Joseph E., St. Louis, Mo., assignor to St. Louis Car Track Cleaner Company, East St. Louis, Ill. Oscillating car-track cleaner	446,326	Feb. 10	1361	332	54	782

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Chambers, Joseph E., St. Louis, Mo., assignor to St. Louis Car Track Cleaner Company, East St. Louis, Ill. Car-track cleaner.....	461,735	Oct. 20	1935	480	57	384
Chambers, Josephus C., Detroit, Mich. Electrical medical apparatus.....	445,636	Feb. 3	184	48 49 50	54	548
Chambers, Josephus C., Detroit, Mich. Suspensory bandage.....	464,768	Dec. 8	1182	293	57	1369
Chambers, Matthew C., Brooklyn, N. Y. Sheet-metal vessel or pot.....	445,439	Jan. 27	2313	600	54	478
Champagne, P. B., et al. (See Mitchell, Oliver F., assignor.)						
Chamblin, Charles M., assignor of one-half to A. G. Matthews, Newton, Ill. Burial apparatus. Champion Heating and Ventilating Company. (See Murnane and Trece, assignors.)	454,331	June 16	1719	449	55	1493
Champion, Pierre C. E., Paris, France. Electrical pyrotechnics.....	465,981	Dec. 29	3159	809 810 811	57	1776
Champlin, Edward L., and F. E. Andrews, assignors of one-third to S. Albertson, Sterling, Ill. Metallic roofing.....	453,577	June 2	622	159	55	1265
Champney, William R. (See Lyon, William F., assignor.)						
Chancellor, Charles W., Baltimore, Md. Apparatus for treating sewage.....	448,122	Mar. 10	1374	352	54	1388
Chandler, Albert F., Mohegan, R. I., assignor of one-half to E. E. and O. F. Allen, Millbury, Mass. Car-coupling.....	461,400	Oct. 13	1344	339	57	268
Chandler, George A., Grafton, N. H. Stage-bracket.....	464,769	Dec. 8	1183	294	57	1369
Chandler, George W., Ayer, Mass., assignor of one-half to S. A. Sawyer, Manhattan, Kans. Thill-coupling.....	465,041	Dec. 15	1629	415	57	1465
Chandler, Hiram C., Peru, Ind. Fence.....	449,667	Apr. 7	33	7	55	8
Chandler, James G., Racine, Wis. Railway-truck.....	456,719	July 28	2270	602	56	459
Chandler, Noël, Hednesford, England. Centrifugal fan.....	445,043	Jan. 20	1721	443	54	352
Chandler, Noël, Hednesford, England. Cut-off gear for engines.....	447,603	Mar. 3	542	134	54	1219
Chandler, Richard, Lone Star, Tex. Car-coupling.....	450,217	Apr. 14	841	211	55	170
Chandler, T. H., et al. (See Ish, James T., assignor.)						
Chandler, William B. (See Thrall, Stephen C., assignor.)						
Chandler, William H., et al. (See Wright, William A., assignor.)						
Chandler, William W., Long Prairie, Minn. Whiffletree-hook.....	444,420	Jan. 13	693	180	54	145
Chaney, Frank S., assignor of one-half to J. F. Haglund, Honolulu, Hawaii. Wrench.....	451,396	Apr. 28	2724	676	55	552
Chaney, James W. (See Davey and Chaney.)						
Chaney, Nathan A., Cadiz, Ohio. Boring-machine.....	464,646	Dec. 8	978	243	57	1332
Chantler, James D., Allegheny, Pa. Foot-wear.....	455,303	July 7	12	3	56	5
Chapel, Asa J., Eureka Springs, Ark. Sash-operator.....	463,095	Nov. 10	1383	357	57	828
Chapel, Asa J., Eureka Springs, Ark. Drying apparatus.....	465,343	Dec. 15	2138	547	57	1559
Chapel, Edward A., assignor of two-thirds to A. B. Coon and M. J. Gochey, Marengo, Ill. Automatic railway-gate.....	458,267	Aug. 25	2194	536	56	970
Chapie, Alexander, Florissant, Mo. Potato-planter.....	444,192	Jan. 6	350	86	54	71
Chapin, Edward J., Indianapolis, Ind. Cut-off mechanism for steam-engines.....	444,773	Jan. 13	1245	323 324	54	251
Chapin, Gilbert W., Hartford, Conn. Coupon-cutter.....	454,850	June 30	2557	658	55	1663
Chapin, Harlow F., Brockport, N. Y. Steam and air pipe coupling.....	452,689	May 19	2008	502	55	970
Chapin, William H., Toledo, Ohio. Forging-blank for hollow-handled cutlery.....	445,659	Feb. 3	230	62	54	557
Chapleau, Samuel E. S., Ottawa, Canada. Rotary compound steam-engine.....	444,087	Jan. 6	168	42	54	36
Chaplin, Charles O. (See Murphy and Chaplin.)						
Chaplin, Edwin D., Holliston, assignor to E. Humphrey, trustee, Boston, Mass. Electro-magnetic motor.....	448,603	Mar. 17	2176	543 544	54	1550
Chaplin, Orril R., Boston, Mass. Sash-fastener.....	453,177	June 2	1	1	55	1149
Chaplin, Orril R., Boston, Mass. Window-fastener.....	453,178	June 2	2	1	55	1149
Chapman, Albert W. (See Shippee, Aaron B., assignor.)						
Chapman & Armstrong Manufacturing Company. (See Dalton, Daniel F., assignor.)						
Chapman, Clarence L., Erie, Pa., assignor of one-half to H. I. Petrie, Little Falls, N. Y. Nut-tapping machine.....	444,062	Jan. 6	127	32	54	28
Chapman, David, Longton, England. Apparatus for forming articles of pottery.....	461,111	Oct. 13	865	222 223	57	174
Chapman, Edward N., Holyoke, Mass. Button.....	451,025	Apr. 28	2151	531	55	441
Chapman, Frank L. G. (See Hoeffler and Chapman.)						
Chapman, General S., Denver, Col. Windmill.....	444,793	Jan. 13	1270	329	54	256
Chapman, George K., Russellville, Ky. Stove.....	457,433	Aug. 11	845	218	56	698
Chapman, George T., White Plains, N. Y. Wood-screw.....	449,037	Mar. 24	2859	727	54	1689
Chapman, George T., White Plains, assignor of one-half to W. H. Merritt, New York, N. Y. Heel-expander for horses.....	445,463	Jan. 27	2346	610	54	484
Chapman, George T., White Plains, assignor of one-half to W. H. Merritt, New York, N. Y. Hoof-expander.....	446,828	Feb. 17	2139	531	54	950
Chapman, George T., White Plains, assignor of one-half to W. H. Merritt, New York, N. Y. Heel-expander for horses.....	449,573	Mar. 31	3736	939 940	54	1860
Chapman, George T., White Plains, assignor of one-half to W. H. Merritt, New York, N. Y. Buckboard wagon.....	452,338	May 12	1454	360	55	856
Chapman, George T., White Plains, assignor of one-half to W. H. Merritt, New York, N. Y. Horseshoe.....	454,851	June 30	2558	658	55	1663
Chapman, George T., White Plains, assignor of one-half to W. H. Merritt, New York, N. Y. Hoof-expander.....	456,082	July 14	1236	324	56	243
Chapman, George T., White Plains, assignor of one-half to W. H. Merritt, New York, N. Y. Street-car.....	464,450	Dec. 1	679	167	57	1264
Chapman, Henry E., Melrose Highlands, assignor to Russell Electric Company, Boston, Mass. Carbon-holder for electric-arc lamps.....	462,662	Nov. 3	686	174	57	683
Chapman, Henry E., Melrose Highlands, assignor to Russell Electric Company, Boston, Mass. Pencil-carbon holder for electric lamps.....	462,663	Nov. 3	687	174	57	683
Chapman, Herman L., White Pigeon, Mich. Intermittent grip device.....	449,732	Apr. 7	138	34	55	28
Chapman, Hiram H., Rockwood, Mich. Cider-mill.....	458,015	Aug. 18	1790	467	56	886
Chapman, James E. (See Souther and Chapman.)						
Chapman, Jay W., Detroit, Mich. Cutting veneers.....	463,888	Nov. 24	2661	693	57	1088
Chapman, John C., Boston, Mass. Shoe-fastening.....	465,753	Dec. 22	2787	712	57	1695
Chapman, John G. (See Fraser, William, assignor.)						
Chapman, Mark C., assignor to himself and M. T. Chapman, Aurora, Ill. Wind-engine.....	447,066	Feb. 24	2559	635 636	54	1035
Chapman, Matthew T. (See Chapman, Mark C., assignor.)						
Chapman, Newton S., assignor of one-half to F. Hagerman, Kansas City, Mo. Electric railway-signal alarm.....	453,578	June 2	623	159	55	1265
Chapman, Samuel A. (See White, Le Roy S., assignor.)						
Chapman, Thomas G. (See Cameron and Chapman.)						
Chapman, William H., assignor to Giant Electric Motor Company, Portland, Me. Electric motor.....	447,939	Mar. 10	1097	275 276	54	1333

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Chapman, Wilson S. (See Clarke, George D., assignor.)						
Chappatte, Edward C., assignor to Keystone Watch Case Company, Philadelphia, Pa.	459,133	Sept. 8	926	223	56	1253
Chappel, Christophor C., Lorado, Ark. Combined cotton scraper and chopper.	450,480	Apr. 14	1268	309	55	248
Chappell, Charles A., Willimantic, Conn., assignor to G. Draper & Sons, Hopedale, Mass. Support for spinning-spindles.	450,992	Apr. 21	2099	517	55	422
Chappell, Curtis P., assignor to Household Sewing Machine Company, Incorporated, Providence, R. I. Electric switch and case for the same	465,426	Dec. 15	2263	581	57	1584
Chapsal, François, Paris, France. Feed-water purifier.	461,566	Oct. 20	1670	408 409	57	335
Chardonnet, Hilaire de, Besançon, France. Manufacture of pyroxyline.	455,245	June 30	3265	37	55	1799
Chardonnet, Hilaire de, Besançon, France. Apparatus for making artificial silk.	460,629	Oct. 6	153	38 39	57	33
Charles, Charles O., Remsen, N. Y. Wardrobe	452,594	May 19	1861	468	55	941
Charles, Lewis N., Washington, D. C. Automatically-governed valve	458,247	Aug. 25	2149	527	56	963
Charlock, Isaac N., <i>et al.</i> (See Coy, George E., assignor.)						
Charlton, Matthew, New Haven, Pa. Railway-switch	464,428	Dec. 1	644	159	57	1257
Charlton, Thomas, Philadelphia, Pa. Auger or boring-tool	461,666	Oct. 20	1830	452 453	57	364
Charonnat, Anselme A., Nevada City, Cal. Variable nozzle	458,762	Sept. 1	322	78	56	1127
Charter, John, Sterling, Ill. Gas-engine	455,388	July 7	148	37	56	32
Charva, John, New York, N. Y. Tail-piece for zithers	452,361	May 19	1493	369	55	874
Chase, Arthur G., Boston, Mass. Combined square and bevel.	445,389	Jan. 27	2237	581	54	462
Chase & Co., L. C. (See Kinder, Arthur H., assignor.)						
Chase, De Forest W. (See Morse and Chase.)						
Chase, Frank, Boston, Mass. Sewing machine	445,924	Feb. 3	663	162 163	54	642
Chase, Frank, Boston, Mass. Sewing-machine	445,925	Feb. 3	668	163 164	54	643
Chase, Henry A., Boston, Mass. Automatic time-stamp	445,161	Jan. 27	1908	493	54	397
Chase, Henry A., Boston, Mass. Circuit-closer for clocks	448,294	Mar. 17	1690	427	54	1458
Chase, Henry A., Boston, Mass. Police-signaling apparatus	452,771	May 26	2146	537 538	55	1005
Chase, Henry A., Boston, Mass. Thermostat	455,788	July 14	805	210	56	164
Chase, Henry A., assignor to A. Watte, Boston, Mass. Signal-transmitting apparatus and system	465,989	Dec. 29	3176	814 815	57	1779
Chase, Henry A., assignor to A. Watte, Boston, Mass. Signal-transmitting mechanism	465,990	Dec. 29	3190	816	57	1781
Chase, Henry A., Stoneham, assignor of one-half to G. W. Gregory, Boston, Mass. Electric switch	451,397	Apr. 28	2725	676 677	55	552
Chase, Henry A., Stoneham, and H. F. Eaton, Cambridge, Mass. Fire-alarm apparatus.	455,812	July 14	850	223	56	171
Chase, Henry A., Boston, and H. F. Eaton, Cambridge, Mass. Thermostat.	455,813	July 14	853	223	56	172
Chase, Henry H., Geneseo, Ill. Udder-protector	462,664	Nov. 3	688	174	57	683
Chase, Henry W., Wittenberg, Wis. Door-securer	463,226	Nov. 17	1599	416	57	878
Chase, Irving F. (See Hildreth, Samuel W., assignor.)						
Chase, James, Rochester, N. Y. Support for electric lamps.	444,330	Jan. 6	543	141	54	109
Chaso, James, Rochester, N. Y. Copy-holder for type-writers	460,847	Oct. 6	478	122	57	95
Chase, James S., Cochran, Pa. Surgical instrument	465,161	Dec. 15	1839	467	57	1503
Chase, John, Paterson, N. J., assignor to E. Horton, Windsor Locks, Conn. Lathe-chuck	461,009	Dec. 1	12	4	57	1139
Chase, John W., <i>et al.</i> (See Werner, Louis G., assignor.)						
Chase, Joseph E. (See Moore, Morris W., assignor.)						
Chase, Joseph H., and J. B. Tracy, Meriden, Conn., assignors to Aeolian Organ and Music Company, New York, N. Y. Organ	445,044	Jan. 20	1722	444	54	352
Chase, Lester J., Buffalo, N. Y. Adjustable ekid.	460,196	Sept. 29	2599	648	56	1595
Chase, Margaret H. (See Welch, Howard F., assignor.)						
Chase, Milton. (See Morse and Chase.)						
Chase, Murrey C., Chicago, Ill., assignor to Electrical Supply Company, of Illinois. Insulator	458,221	Aug. 25	2107	546	56	955
Chase, Oliver R., Boston, assignor to Algonquin Manufacturing Company, Portland, Me. Lubricating discharge-nozzle	445,711	Feb. 3	322	85	54	576
Chase, Stephen H., San José, Cal. Saw-bit holder.	455,169	June 30	3150	799	55	1777
Chase, William L., New York, N. Y. Metallic casing.	447,807	Mar. 10	879	219	54	1291
Chassagne, Paul J., Akron, Ohio. Hanger for incandescent lamps	452,266	Sept. 8	1127	274	56	1292
Chatard, Ferdinand E., Baltimore, Md. Automatic electric valve-controller	450,927	Apr. 21	1979	486	55	400
Chatfield, Charles, Malden, Mass. Piano	464,553	Dec. 8	839	207	57	1304
Chatfield, Norman A., assignor, by mesne assignments, of one-half to A. E. Hoover, Chicago, Ill. Process of and apparatus for pneumatic drawing	461,667	Oct. 20	1831	453	57	364
Chatfield & Woods. (See Schenck, Murray, assignor.)						
Chatillon, George H., assignor to J. Chatillon & Sons, New York, N. Y. Spring-scales	444,093	Jan. 6	177	44	54	37
Chatillon & Sons, John. (See Chatillon, George H., assignor.)						
Chattanan, John J., and C. E. Owens, Philadelphia, Pa. Cat-guard	448,318	Mar. 17	1728	437	54	1466
Chattanooga Plow Company (See Sanders and Buchanan, assignors.)						
Chatterton, Albert E. (See Copeland and Chatterton.)						
Chazal, Louis R., assignor of one-half to P. E. Chazal, Charleston, S. C. Buckle	446,629	Feb. 17	1828	452	54	887
Chazal, Philip E. (See Chazal, Louis E., assignor.)						
Cheek, Joseph, Beardstown, Ill. Oscillating valve for steam-engines	446,056	Feb. 10	897	218	54	694
Cheever, John D. (See Fiske, Henry C., assignor.)						
Cheltra, Charles, <i>et al.</i> (See McNeal, William A., assignor.)						
Chemin, Jean C. O., Paris, France. Incandescent gas-burner	445,725	Feb. 3	344	90	54	580
Chemische Fabrik Buckau. (See Peitzsch, Bernhard, assignor.)						
Chenevert, Thomas. (See Morris and Chenevert.)						
Cheney Bigelow Wire Works. (See Tucker, Andrew J., assignor.)						
Cheney, Charles W., Athol, Mass. Wrench	457,107	Aug. 4	269	70	56	584
Cheney, Harry G., South Manchester, Conn. Apparatus for maintaining the temperature of liquids	453,492	June 2	390	101	55	1220
Cheney, James W., Indianapolis, Ind. Tool-handle.	453,622	June 9	707	183	55	1290
Cheney, John L., Lowell, Mass. Bobbin or spool	450,218	Apr. 14	842	211	55	170
Cheney, Joseph W., Three Rivers, Mass. Lappet-loom	451,914	May 12	733	184	55	724
Cheney, T. J. (See Coe, Charles E., assignor.)						
Cheney, Walter L., Hartford, Conn. Sewing-machine	461,815	Oct. 27	2079	513	57	420
Chenoweth, Alexander C., New York, N. Y. Laying electric conduits	454,938	June 30	2734	698	55	1696
Chenoweth, Alexander C., New York, N. Y. Means for constructing electric conduits	454,939	June 30	2737	698	55	1696
Chenoweth, Joseph, Elliott, Iowa. Car-coupling	450,928	Apr. 21	1981	486	55	400

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Chesebrough Manufacturing Company. (See Brown, Edward G., assignor.)						
Chesebrough, Robert A. (See Osterhoudt, Jeremiah, assignor.)						
Chesebrough, Robert A., New York, N. Y. Coating for the protection of bottoms of vessels.	447,941	Mar. 10	1098		54	1333
Chester, George T., Lockport, N. Y. Hoop	464,554	Dec. 8	841	207	57	1304
Cheswright, Charles, London, England. Fraud-preventive in capsuled bottles	447,397	Mar. 3	201	53	54	1156
Cheswright, Charles, London, England. Machine or apparatus for capsuling bottles	463,576	Nov. 17	2158	569 570	57	985
Cheswright, Henry T., Carcassonne, France. Secondary battery	445,542	Feb. 3	21	6	54	515
Chevers, Aurion V., assignor of three-fourths to F. W. Rockwell, D. R. Brown, Providence, R. I., and P. J. McElroy, East Cambridge, Mass. Pipe for wind musical instruments	445,849	Feb. 3	559	136	54	620
Chevers, Aurion V., Providence, R. I. Musical instrument	453,462	June 2	456	117	55	1234
Chew, Benjamin R., Carlinville, Ill. Water strainer or filter	453,547	June 2	577	147	55	1257
Chew, Charles F., Philadelphia, Pa. Revolving door	455,656	July 7	579	150 151	56	112
Chezem, Andrew, assignor of one-half to A. J. Hundley, Sergeant Bluffs, Iowa. Bridle attachment	444,048	Jan. 6	102	26	54	23
Chicago Bicycle Company. (See Worth, William O., assignor.)						
Chicago Brass Company. (See Kellermann, Charles H., assignor.)						
Chicago Electric Motor Company. (See Southard, Barron D., assignor.)						
Chicago Forge and Bolt Company. (See Weatherston, Christopher, assignor.)						
Chicago Heat Storage Company. (See Koneman, William A., assignor.)						
Chicago Matrix Machine Company. (See Redfield, Casper L., assignor.)						
Chicago Nickel Works. (See Goodrich and Henry, assignors.)						
Chicago Railway Appliance Company. (See Schroeder, William, assignor.)						
Chicago Railway Device Company. (See Gifford, Ezra N., assignor.)						
Chicago Spring Butt Company. (See Keene, Joseph, assignor.)						
Chicago Stamping Company. (See Flint, William W., assignor.)						
Chicago Stamping Company. (See Sturges, Lee, assignor.)						
Chicago Water-Jacket Condenser Company. (See Beard, Edwin, assignor.)						
Chichester Manufacturing Company. (See Old, Ausborn F., assignor.)						
Chichester, Sylvester. (See Moffatt, Richard R., assignor.)						
Chichester, Sylvester. (See Moffatt and Chichester.)						
Chick, George H., Kansas City, Mo. Ore-rifle	448,710	Mar. 24	2362	591	54	1593
Chick, George H., Kansas City, Mo. Steam silver-plated plate for amalgamating gold, silver, or copper	460,946	Oct. 13	634	164	57	131
Chickasaw Saddlery Company. (See Trask, Wilber C., assignor.)						
Child, Frederick R. (See Paquette and Child.)						
Children, Edwin. (See Murphy, Daniel, assignor.)						
Children, Edwin, East Dubuque, Ill. Attachment for cultivators	463,941	Nov. 24	2748	713	57	1105
Children, Edwin, East Dubuque, Ill. Wheel	465,692	Dec. 22	2699	688	57	1677
Childs, Eugene, assignor to himself and O. L. Noble, Boston, Mass. Lathe	461,401	Oct. 13	1345	339 340	57	268
Childs, Frederick, Morristown, N. J. Swathing attachment for harvesters	451,678	May 5	358	88	55	647
Childs, Jesse, West Deer, Pa. Potato-digger	455,304	July 7	13	3	56	5
Childs, Orlando J., assignor to National Harrow Company, Utica, N. Y. Harrow	463,594	Nov. 17	2193	578	57	992
Childs, Samuel S. (See Childs, William, Jr., and S. S.)						
Childs, William, Jr., and S. S., Brooklyn, N. Y. Bottle-filling apparatus	456,400	July 21	1744	460 461	56	350
Chilson, Libbens, assignor to W. R. Kendall, A. W. Hunt, and M. L. Fay, Worcester, Mass. Railway-track	446,161	Feb. 10	1080	265	54	726
Chilton, Annie H., Baltimore, Md. Horse-detacher and brake	456,613	July 28	2102	555 556	56	426
Chinnock, Charles E., Brooklyn, N. Y. Gearing for electro-magnetic motors	462,348	Nov. 3	213	51	57	591
Chisham, William R., assignor of one-half to S. E. Abbott, Hannibal, Mo. Gate-opening device	462,690	Nov. 10	752	196	57	704
Chisholm, Alexander M., et al. (See Ongley, Charles E., assignor.)						
Chisholm, Daniel J., New York, N. Y. Electric motor	452,214	May 12	1244	314 315	55	817
Chisholm, Samuel S., et al. (See White, Bruce C., assignor.)						
Chisholm, Stewart H. (See McIlvried, John, assignor.)						
Chittenden, Annie R., Osceola, Iowa. Road-cart	463,096	Nov. 10	1383	357	57	829
Choate, Franklin W., San Diego, Cal. Car-wheel and rail	457,703	Aug. 11	1259	325	56	777
Choen, Charles G., St. Louis, Mo. Sand-pump or other pipes	461,997	Oct. 27	2364	586	57	475
Choen, Charles G., assignor of one-half to B. S. Adams, St. Louis, Mo. Attachment for sand-conveyers	460,630	Oct. 6	158	39	57	33
Chopard, Albert, assignor to Société Industrielle, Moutier-Grandval, Switzerland. Stem winding and setting watch	448,877	Mar. 24	2624	659	54	1643
Chorlton, Isaac, and G. L. Scott, Manchester, England. Mattress-frame and bedstead	448,209	Mar. 17	1529	391 392	54	1428
Chowning, Charles W. (See Thompson, Joshua C., assignor.)						
Chrisler, Monroe R., Elmira, N. Y. Bolt-cutter	454,852	June 30	1269	659	55	1664
Christ, Gustave A., Grand Rapids, Mich. Fence	444,331	Jan. 6	545	141	54	109
Christ, Rinehart. (See Kahn and Christ.)						
Christensen, Emilie, New York, N. Y. Leggin	450,326	Apr. 14	1027	253	55	203
Christensen, Gunder H., De Witt, Iowa. Adjustable bracket	456,614	July 28	2104	556	56	426
Christenson, Christ, Stillwater, Minn. Craue for loading logs	457,341	Aug. 11	703	180	56	669
Christenson, Martin F. (See Belden and Christenson.)						
Christensen, John, Haverhill, Mass. Apparatus for preventing horses from cribbing	464,854	Dec. 8	1301	326	57	1393
Christian, Charles, assignor of two-thirds to J. R. and C. E. Woodward, Clinton, Kans. Corn-harvester	460,197	Sept. 29	2600	649	56	1596
Christian, H. T., et al. (See Pepper, Thomas, assignor.)						
Christian, James F., Mineral Wells, Tex. Sash-balance	452,912	May 26	2368	599	55	1047
Christian, John H., and F. Stanley, Wabunsee County, Kans. Plow and cultivator	451,806	May 5	551	136	55	684
Christian, Peter B., et al. (See House, Joseph L., assignor.)						
Christian, Samuel L. (See Christian, William and S. L.)						
Christian, William and S. L., Lantz's Mill, Va. Car-conpling	454,534	June 23	2046	529	55	1561
Christians, Fredrick W., Hubbard, Wis. Truss	451,266	Apr. 28	2539	626	55	517
Christiansen, John, Quincy, Mass. Electric-car motor	452,176	May 12	1192	301	55	806
Christiansen, John, Quincy, Mass. Railway-switch	465,791	Dec. 22	2838	727	57	1706
Christie, Henry P., San Francisco, Cal. Friction-clutch	462,623	Nov. 3	633	160	57	673
Christie, John H., Stamford, Conn., assignor to W. G. Hoople, New York, N. Y. Permutation-lock	460,559	Oct. 6	22	6	57	6

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Christie, Thomas S., <i>et al.</i> (See Ward, Alexander F., assignor.)						
Christie, Walter, New York, N. Y. Piston-packing	447,007	Feb. 24	2445	608	54	1014
Christie, William H. (See Keck, Christian, assignor.)						
Christie, William H., Cincinnati, Ohio. Book-binder's press	450,882	Apr. 21	1924	472	55	389
Christman, Augustus G., Reading, Pa. Washing-machine	444,421	Jan. 13	694	181	54	145
Christofferson, Hans, assignor of fifty-one one-hundredths to H. L. North and C. Fulton, Hudson, Wis. Steam-engine	458,943	Sept. 1	614	151	56	1185
Christy, Lewis F., and E. Aldenderfer, Amanda, Ohio. Barrel-stand	453,856	June 9	1042	272	55	1354
Christy, Thomas. (See Schlesinger, Harry A., assignor.)						
Chronik, August. (See Chronik, Ludwig and A.)						
Chronik, Ludwig and A., Brooklyn, N. Y. Machine for infusing coffee and tea	459,833	Sept. 22	2046	514	56	1484
Chubb, Charles S., U. S. Army. Dust-pan	445,278	Jan. 27	2087	539	54	431
Chubb, William J., assignor to Vulcan Patent Smoke Consumer and Fuel Economizer Corporation, Limited, London, England. Apparatus through which air is supplied to furnaces of steam-boilers	448,178	Mar. 10	1467	374	54	1407
Chubbuck, Leopold H., Boston, Mass. Ash-can	459,972	Sept. 22	2257	566	56	1523
Chnmard, Edmund F., Colfax, Wash. Brush	457,862	Aug. 18	1531	398	56	838
Church, Albert M., Chicago, Ill. Electric synchronizing device for clock-hands	452,424	May 19	1589	394	55	892
Church, Andrew and C. A., Morenci, Mich. Hydraulic windmill-regulator	458,518	Aug. 25	2604	634	56	1048
Church, Charles A. (See Church, Andrew and C. A.)						
Church, Dwight M., Willimantic, assignor of five-eighths to A. C. Andrew, Windham, Conn., and E. B. Foss, Bay City, Mich. Railway-switch	464,061	Dec. 1	81	21	57	1152
Church, Edwin, Williamston, N. Y. Apple-slicer	464,674	Dec. 8	1026	257	57	1340
Church, Eugene I., West Hanover, Mass. Door weather-strip	459,943	Sept. 22	2217	558	56	1516
Church, Henry, Parkston, S. D. Washing-machine	461,736	Oct. 20	1938	480	57	384
Church, Henry A. (See Salisbury, Levi E., assignor.)						
Church, Henry W., assignor to Kitson Machine Company, Lowell, Mass. Dust-trunk for cotton-cleaning	453,992	June 9	1228	320	55	1391
Church, Walter A., Binghamton, assignor to B. F. Watson and E. A. Eggert, Buffalo, N. Y. Screw-driver	452,772	May 26	2147	538	55	1006
Church, William, St. Paul, Minn. Figure toy	457,397	Aug. 11	792	204	56	658
Church, William H., assignor of one-half to A. Wilson, Fenelon Falls, Canada. Quilting-frame	462,395	Nov. 3	289	71	57	606
Churchill, Henry, assignor of one-half to W. A. Hubbard, Rochester, N. Y. Tanning	459,993	Sept. 22	2255		56	1528
Churchill, Samuel M., Lawtey, Fla. Nut-lock	452,662	May 19	1968	494	55	962
Churchman, Thomas C., Sacramento, Cal. Tongue-support	456,018	July 14	1156	303	56	227
Chute, Hiram E. (See Shaw, William F., assignor.)						
Cidiloan, Augustus A., Fitchburg, Mass. Cradle, chair, &c.	458,673	Sept. 1	199	46	56	1103
Cie des Fonderies et Forges de L'Horme, (Chantiers de la Buire,) <i>et al.</i> (See Seguin, Augustin, assignor.)						
Ciley, George W., Norwich, Conn. Fastening device for gun-barrels	450,448	Apr. 14	1222	299	55	239
Cincade, Albert, Jersey City, N. J. Wrench	460,427	Sept. 29	2948	737	56	1662
Circle, Franklin P., Springfield, Ohio. Wheel	463,740	Nov. 24	2430	637	57	1045
Clacher, Neil A., Chicago, Ill. Separating and filling machine for confectioners' use	449,668	Apr. 7	34	8, 9	55	9
Cladek, Frank T., Rahway, N. J. Beer-buck	455,937	July 14	1027	269	56	205
Claffin, Frank O., assignor to himself, G. H. Washburn, Boston, I. E. Williams, Woburn, and G. A. Loring, Hingham, Mass. Automatic selling device	453,561	June 2	595	152	55	1260
Claggett, Isaac H., Montevideo, Minn. Flying target	462,691	Nov. 10	753	196	57	704
Clamer, Francis J., assignor to Ajax Lead Coating Company, Philadelphia, Pa. Coating metal	451,592	May 5	225		55	622
Clamer, Lonisa H., Philadelphia, Pa. Fastening device for door-mats	451,633	May 5	292	71	55	634
Clanahan, Thomas J. (See Renshaw and Clanahan.)						
Clapp, Charles W. (See Westervelt and Clapp.)						
Clapp, Charles W., and E. C. Westervelt, South Bend, Ind. Attachment for hillside-plows	462,203	Oct. 27	2683	675	57	536
Clapp, Dwella C., Blue Springs, Nebr. Device for holding sickles to be ground	456,938	Aug. 4	13	3	56	535
Clapp, Edward D. (See Horning and Clapp.)						
Clapp, Edward H., <i>et al.</i> (See Bisel, Joseph J., assignor.)						
Clapp, Henry W., Northampton, Mass. Dining-room service apparatus	448,009	Mar. 10	1218	310	54	1356
Clapp, James H., assignor to J. L. Board, Chicago, Ill. Machine for crimping and double-seaming cans	457,908	Aug. 18	1610	420	56	851
Clapp, James H., assignor to J. L. Board, Chicago, Ill. Machine for forming and flanging can-bodies of irregular shape	457,909	Aug. 18	1612	421	56	852
Clapp, James H., and C. H. Emery, assignors to J. L. Board, Chicago, Ill. Former for can-bodies	460,947	Oct. 13	635	164	57	131
Clapp, Joseph, Evanston, Ill., assignor of one-half to W. E. Lowe, New York, N. Y. Automatic valve	459,198	Sept. 8	1026	250	56	1271
Clarenbach, Louis, Jr., Philadelphia, Pa., assignor to Napping Machine Company, Limited. Giggling-machine	458,145	Nov. 18	1984	514	56	925
Clark, Ambrose B., assignor of one-half to D. J. Clark, Meriden, Conn. Sash-fastener	463,984	Nov. 24	2816	730	57	1118
Clark, Andrew J., Dayton, Tenn. Engine	453,901	June 9	1101	288	55	1365
Clark, Anthony, Parkersburg, W. Va. Seal hasp-lock	447,664	Mar. 3	624	155	54	1236
Clark, Charles C., Meriden, Conn. Checkrein-loop	452,563	May 19	1815	456	55	932
Clark, Charles J., Keokuk, Iowa. Fire-escape	456,939	Aug. 4	14	4	56	535
Clark, D. J. (See Clark, Ambrose B., assignor.)						
Clark, Daniel W., Tionesta, Pa. Adjustable car-step	463,481	Nov. 17	2001	524	57	956
Clark, Dwight S., Cambridge, assignor to E. L. Forbes, Boston, Mass. Angular paper box	452,164	May 12	1170	295	55	802
Clark, Dwight S., Cambridge, assignor to E. L. Forbes, Boston, Mass. Angular paper box	459,542	Sept. 15	1576	394	56	1387
Clark, Dwight S., Cambridge, assignor to W. H. Forbes, Boston, Mass. Box	460,068	Sept. 22	2399	600	56	1549
Clark, Dwight S., Cambridge, assignor to E. L. Forbes, Boston, Mass. Angular paper box	460,817	Oct. 6	441	111	57	88
Clark, Dwight S., Cambridge, assignor to E. L. Forbes, Boston, Mass. Paper-cutting machine	462,469	Nov. 3	399	98	57	626
Clark, Dwight S., Cambridge, Mass., and J. W. Osborne, Washington, D. C., assignors to E. L. Forbes, Boston, Mass. Angular paper box	459,543	Sept. 15	1577	394	56	1387
Clark, Edred W., Hartford, Conn. Machine for forming seamless tubes	454,030	June 16	1283	335	55	1409
Clark, Edward L., Pittsburg, Pa. Making flanged bars or beams	451,453	May 5	9	3	55	581
Clark, Edward L., Pittsburg, Pa. Hollow bar	456,646	July 28	2152	570	56	437
Clark, Edward W., assignor to himself, E. M. Clark, and Western Iron Works, Butte City, Mont. Ore-concentrator	463,482	Nov. 17	2004	524	57	956

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Clark, Edwin M., <i>et al.</i> (See Clark, Edward W., assignor.)						
Clark Electric Company. (See Clark, Ernest P., assignor.)						
Clark, Elisha W., assignor of one-half to G. W. Hyde, High Spring, Fla. Table	452,117	May 12	1087	{ 276 277 }	55	787
Clark, Emerson, Jenny Lind, Ark. Trousers, &c	465,319	Dec. 15	2088	533	57	1551
Clark, Ernest P., New York, N. Y. Duplex-arc lamp	463,595	Nov. 17	2194	578	57	992
Clark, Ernest P., assignor to Clark Electric Company, New York, N. Y. Regulator for constant-current dynamos	458,617	Sept. 1	107	24	56	1087
Clark, Ernest P., assignor to Clark Electric Company, New York, N. Y. Constant-current dynamo	458,618	Sept. 1	108	24, 25	56	1087
Clark, Erwin B., Grand Rapids, Mich. Detachable leg for furniture	451,755	May 5	483	120	55	670
Clark, Fayette A., Brushton, N. Y. Box-cover	459,391	Sept. 15	1337	335	56	1342
Clark, Francis E., New York, and G. Wexler, Brooklyn, N. Y. Puzzle	444,239	Jan. 6	421	105	54	83
Clark, Francis L. (See Moore, Frank, assignor.)						
Clark, Francis L., Lee's Summit, Mo. Sewing-machine motor	446,964	Feb. 24	2383	593	54	1002
Clark, Francis L., Swissvale, assignor to Westinghouse Air Brake Company, Pittsburg, Pa. Angle-cock	464,451	Dec. 1	680	167	57	1264
Clark, Francis L., and N. Greenlee, Lee's Summit, Mo. Feeder and band-cutter	445,973	Feb. 10	747	{ 183 184 }	54	668
Clark, Frank H. (See Barnes, David L., assignor.)						
Clark, Frank M., Tilton, N. H., assignor to Mechanical Specialties Manufacturing Company, Boston, Mass. Check-punch	451,368	Apr. 28	2684	665	55	544
Clark, Frederick O. (See Hazard, Dexter, assignor.)						
Clark, George B., Bethesda, Ohio. Cutter-bar	449,521	Mar. 31	3665	921	54	1847
Clark, George D., Plainville, Conn. Caster-socket	461,070	Oct. 13	810	207	57	163
Clark, George F., Rutland, Vt. Method of and apparatus for sawing stone	454,712	June 23	2332	599	55	1615
Clark, George H., Boston, Mass. Boot or shoe	455,305	July 7	14	3	56	5
Clark, George L. (See Bell, William H., assignor.)						
Clark, George M., Higganum, Conn. Disk harrow	444,662	Jan. 13	1058	{ 275 276 }	54	217
Clark, George M., assignor to C. S. Hubbard, Higganum, Conn. Cultivator	465,126	Dec. 15	1788	451	57	1494
Clark, George W. (See Weicher, John H., assignor.)						
Clark, George W., Volga, Iowa. Stanchion	451,026	Apr. 28	2153	532	55	441
Clark, George W., Shadyside, N. J. Tube-machine	456,615	July 28	2104	556	56	426
Clark, Gerard C., London, England. Bottle-stopper	444,200	Jan. 6	361	90	54	73
Clark, Harry L., Canton, Pa. Automatic leather-hanger	464,493	Dec. 8	748	183	57	1286
Clark, Henry A. (See Tregurtha, Alfred T., assignor.)						
Clark, Henry A., <i>et al.</i> (See Lombard, Nathaniel, assignor.)						
Clark, Henry A., <i>et al.</i> (See Tregurtha, James, assignor.)						
Clark, Henry W., Montgomery, Ala. Lumber-stacker	457,611	Aug. 11	1124	{ 287 288 }	56	751
Clark, Henry W., Montgomery, Ala. Circular saw	464,855	Dec. 8	1302	326	57	1393
Clark, Horace T., Bridgeport, Conn. Electric switch	447,867	Mar. 10	979	245	54	1310
Clark, Horace T., Bridgeport, Conn. Electric switch	449,282	Mar. 31	3247	822	54	1770
Clark, Horace T., Bridgeport, Conn. Electric switch	451,267	Apr. 28	2539	626	55	518
Clark, Horace T., Bridgeport, Conn. Electric switch	451,268	Apr. 28	2541	626	55	518
Clark, Horace T., Bridgeport, Conn. Electric switch	454,031	June 16	1284	335	55	1409
Clark, Isaac. (See Brown, Clark, and Brown.)						
Clark, J. Walter. (See Reiff, William H., assignor.)						
Clark, James R., Philadelphia, Pa. Pill-machine	445,830	Feb. 3	530	{ 128 129 }	54	615
Clark, Jay W. (See Wheeler, Clarence L., assignor.)						
Clark, Jesse L. (See Burkholder and Clark.)						
Clark, John A. (See Wyman and Clark.)						
Clark, John H., assignor to Whittier Machine Company, Boston, Mass. Controller for elevators	464,452	Dec. 1	681	167	57	1264
Clark, John K., assignor, by mesne assignments, to M. K. Clark, Buffalo, N. Y. Hinge	462,204	Oct. 27	2684	675	57	536
Clark, John K., assignor, by mesne assignments, to M. K. Clark, Buffalo, N. Y. Latch	463,483	Nov. 17	2060	525	57	957
Clark, John K., assignor, by mesne assignments, to M. K. Clark, Buffalo, N. Y. Hinge	460,267	Dec. 29	3623	927	57	1806
Clark, Jobu L., Bangor, Me. Tea-kettle	449,899	Apr. 7	385	97, 98	55	76
Clark, Joseph, Saginaw, Mich. Lubricator	465,344	Dec. 15	2139	548	57	1559
Clark, Joseph H., <i>et al.</i> (See Scales, William S., assignor.)						
Clark, Judson, Newburyport, Mass. Leaf-holder for book or music rests	462,235	Nov. 3	22	5	57	556
Clark, Lorenzo D., Fort Jones, Cal. Automatic frisket for hand-presses	464,856	Dec. 8	1303	{ 326 327 }	57	1394
Clark, Mary K. (See Clark, John K., assignor.)						
Clark, Melville, Chicago, Ill. Organ-action	447,760	Mar. 10	782	{ 194 195 }	54	1273
Clark, Melville, Chicago, Ill. Cabinet-organ	463,572	Nov. 17	2149	{ 567 568 }	57	984
Clark, Nathan B., Washington, D. C., and F. B. King, Baltimore, Md. Steam-boiler	446,093	Feb. 10	950	{ 233 234 }	54	704
Clark, Nathan B., and F. B. King, Washington, D. C. Steam-boiler	465,082	Dec. 15	1701	{ 432 433 }	57	1478
Clark, Ogden C. (See Drury and Clark.)						
Clark, Owen A., Fife Lake, Mich. Air-compressor	453,374	June 2	300	78, 79	55	1203
Clark, Philo B., assignor of one-half to J. E. King, Brooklyn, N. Y. Machine for cutting button-flies	462,205	Oct. 27	2685	676	57	536
Clark, Robert K., Newark, N. J. Thread-unwinding and tension device for sewing-machines	444,208	Jan. 6	371	92	54	74
Clark, Samuel E., Philadelphia, Pa. Trick money-box	460,331	Sept. 29	2514	701	56	1637
Clark, Temple. (See Darrell, Armistead M., assignor.)						
Clark, Walter L. (See Barth and Clark.)						
Clark, Walter N., Warren, Ohio. Embalming-board	452,070	May 12	1003	253	55	772
Clark, Wesley, assignor to himself, J. W. Taylor, and S. P. Glnnt, Spartanburg, Ind. Educational appliance	466,296	Dec. 29	3677	939	57	1875
Clark, William. (See Borrett, Joseph H., assignor.)						
Clark, William C. (See Beagle and Clark.)						
Clark, William H., Albion, assignor to Lovell Manufacturing Company, Limited, Erie, Pa. Cash register and indicator	444,391	Jan. 6	639	{ 166 167 }	54	126
Clark, William H., and F. W. Collins, Cortland, N. Y. Stove	459,183	Sept. 8	1006	245	56	1267
Clark, William R., and G. W. Brodie, Boston, Mass. Shutter-fastener	459,080	Sept. 8	835	202	56	1234
Clarke, George D., assignor of five-eighths to W. S. Chapman, Chicago, Ill. Automatic gas-lighting apparatus	458,154	Aug. 25	1994	{ 516 517 }	56	934

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Clarke, George P., New York, N. Y. Magneto-electric machine	446,661	Feb. 17	1880	467	54	897
Clarke, Harry T., assignor to Portland Iron Works, Portland, Oreg. Reversing-valve.....	456,886	July 28	2556	672	56	510
Clarke, Joseph H., et al. (See Scales, William S., assignor.)						
Clarke, Joseph I. C. (See McNevin, John, assignor.)						
Clarke, Powhatan, assignor of one-half to F. H. Smith, Baltimore, Md. Electric arc lamp.....	454,253	June 16	1601	421	55	1470
Clarke, Robert, Galveston, Tex. Portable type-distributor	457,182	Aug. 4	384	99	56	606
Clarke, Robert, Galveston, Tex. Imposition-furniture for printers' use	458,886	Sept. 1	534	130	56	1167
Clarke, Samuel R., Quebec, Canada. Game apparatus.....	454,596	June 23	2155	557	55	1580
Clarke, Samuel W., Wood's Holl, Mass. Game apparatus	448,878	Mar. 24	2625	659	54	1643
Clark's Coking and Smokeless Furnace Company. (See Mitchell, John, assignor.)						
Clarkson, Alexander R., Wilmington, assignor of one-half to J. L. Vansant, Highlands, Del. Indicator for spinning-frames or other machines.....	448,123	Mar. 10	1376	352	54	1388
Clarkson, Frank S., assignor of three-fourths to F. B. Sloan, Baltimore, Md. Sash-balance	463,285	Nov. 17	1690	442	57	896
Clarkson, George H., New York, N. Y. Kindergarten apparatus	465,834	Dec. 29	2915	746	57	1729
Clarkson, John J., Mount Carmel, Pa. Hand-stamp	465,754	Dec. 22	2788	712	57	1695
Clarkson, Joseph T., Amesbury, Mass. Shifting-seat carriage	446,429	Feb. 17	1533	377	54	829
Clarkson, Joseph T., Amesbury, Mass. Shifting seat for carriages	455,738	July 14	728	191	56	149
Clarkson, Samuel E., Philadelphia, Pa. Combined fertilizer-distributor and seeder.....	448,010	Mar. 10	1226	311 312	54	1357
Clarkson-Stanfield Concentrator. (See Clarkson, Thomas, assignor.)						
Clarkson-Stanfield Concentrator. (See Stanfield and Clarkson, assignors.)						
Clarkson, Thomas. (See Stanfield and Clarkson.)						
Clarkson, Thomas, assignor to Clarkson-Stanfield Concentrator, Limited, London, England. Centrifugal concentrator for minerals, &c.....	459,267	Sept. 8	1128	275 276	56	1293
Clarkson, William W., Farmer Village, N. Y. Shingling-bracket	451,807	May 5	552	136	55	684
Clary, John, Westfield, Mass. Snap-hook	456,137	July 21	1319	347	56	269
Class, George C. A., Philadelphia, Pa. Piano-pedal attachment	454,713	June 23	2333	600	55	1615
Class, John, Canton, Ohio. Saw	459,477	Sept. 15	1469	369	56	1367
Claussen, Edward E. (See Lorenz and Claussen.)						
Claussen, Mosses, Goldendale, Wash. Car-coupling	460,198	Sept. 29	2602	650	56	1596
Claudell, Edward and L., New Orleans, La. Test-type for opticians and oculists	461,320	Oct. 13	1197	305	57	240
Claudell, Louis. (See Claudell, Edward and L.)						
Claus, Hubert, Thale-in-the-Harz, Germany. Machine for enameling sheet metal, &c.....	465,461	Dec. 22	2319	595 596	57	1605
Claus, Hubert, Thale-in-the-Harz, Germany. Machine for brushing enamel, &c., off plates.	465,462	Dec. 22	2321	596	57	1605
Claus, Hubert, Thale-in-the-Harz, Germany, assignor to H. Aich, New York, N. Y. Machine for powdering sheet metal, &c.....	465,815	Dec. 22	2876	736	57	1713
Clausen, William H., Melrose, assignor to J. W. Larish, trustee, Boston, Mass. Protector for use in electric circuits	454,926	June 30	2715	693	55	1693
Claussen, Alexander E., and A. J. Jones, Scottville, Ill. Portable farm-fence	446,112	Feb. 10	983	242	54	711
Claussen, Edward E. (See Lorenz and Claussen.)						
Claussen, Edward E., assignor to A. H. Walker, trustee, Hartford, Conn. Paper-bag machine	444,727	Jan. 13	1169	300	54	238
Claussen, Edward E., Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Converting plain into bellows-folded satchel-bottom bags	451,915	May 12	735	184 185	55	725
Claussen, Edward E., assignor to R. Hakewessel and L. H. Wittig, Hartford, Conn. Drilling-machine	463,659	Nov. 24	2305	605 606	57	1022
Claussen, Hans P., assignor to B. Nordberg Company, Milwaukee, Wis. Friction-clutch.	451,727	May 5	434	105	55	661
Claussen, Hans P., assignor to B. Nordberg Company, Milwaukee, Wis. Friction-clutch.	451,728	May 5	436	105	55	662
Clawson, Leonard E., San Francisco, Cal. Hood for fire-places	449,347	Mar. 31	3374	850	54	1791
Clawson, Linns G., assignor of one-half to E. G. Wheeler, Pleasant Hill, Mo. Wagon-scales	445,269	Jan. 27	2077	536	54	429
Clawson, Spencer, Salt Lake City, Utah Ter. Suspender-end	457,448	Aug. 11	867	225	56	702
Claxton, Forbes. (See Claxton, Langley and F.)						
Claxton, Langley and F., Paterson, N. J. Jeweler's drill	460,713	Oct. 6	294	72	57	58
Clay, Cyrus C., Elmhurst, Pa. Nut-lock	444,816	Jan. 20	1308	340	54	273
Claypool, Albert, Toledo, Ohio. Folding table	462,236	Nov. 3	23	6	57	556
Claypool, Charles A., Spencer, Iowa. Feed-grinder	444,742	Jan. 13	1199	311	54	243
Clayton, Durias D. (See Barrett, Frederick W., assignor.)						
Clayton, James T., Columbus, Ga. Water-wheel	460,948	Oct. 13	636	164 165	57	131
Clayton, Lemuel. (See Blackburn, Bray, and Clayton.)						
Clayton, Leonidas W., Indianapolis, Ind. Gate	448,634	Mar. 24	2238	562	54	1569
Clayton, William H., and R. P. Duncan, said Clayton assignor to C. E. Powell, Louisville, Ky. Motor for sewing-machines	463,596	Nov. 17	2196	579	57	992
Cleaveland, Albert H., Belvidere, Ill. Gate	461,093	Oct. 13	842	218	57	169
Cleaveland, Henry A. (See Adams, Fred. L., assignor.)						
Cleaveland, John B., Indianapolis, Ind. Fence	445,746	Feb. 3	381	97	54	588
Cleaveland, John B., Indianapolis, Ind. Fence-post	447,231	Feb. 24	2859	709	54	1092
Cleaveland, John B., Indianapolis, Ind. Wire-stretcher	448,635	Mar. 24	2240	562	54	1570
Cleaveland, John B., Indianapolis, Ind. Wire-stretcher and tension device.....	459,392	Sept. 15	1338	335	56	1342
Cleaveland, Orlando, Middlesex, N. Y. Feeder and band-cutter for thrashing-machines	464,062	Dec. 1	83	22	57	1152
Cleaver, Isaac K., San Francisco, Cal. Sectional cam for stamp-mills	455,506	July 7	324	83	56	65
Cleff, Friedrich. (See Thies, Heinrich, assignor.)						
Cleland, Alexander, Donald, Victoria. Rotary engine.....	455,863	July 14	914	239	56	184
Clem, David B., Philadelphia, Pa. Elevator-hatchway operating mechanism	449,361	Mar. 31	3405	856	54	1796
Clemens, Ernest V., New York, N. Y., assignor to De La Vergne Bottle and Seal Company, of New Jersey. Bottle-seal stopper	461,258	Oct. 13	1104	282	57	221
Clemens, Ernest V., New York, N. Y., assignor to De La Vergne Bottle and Seal Company, of New Jersey. Combined bottle and stopper	461,259	Oct. 13	1107	282	57	221
Clement, Arthur F., Hastings Centre, N. Y. Horse-power	451,152	Apr. 28	2337	580 581 582	55	478
Clément-Conti, Antoine, Feletto, Italy. Ore-separator	448,319	Mar. 17	1728	437 438	54	1466
Clement, Leslie A. (See Clement, Owen W. and L. A.)						
Clement, Lewis M., Oakland, Cal. Cable street-railway	446,221	Feb. 10	1173	287	54	744
Clement, Owen W., Waterville, and L. A. Clement, Palmyra, Me. Car-coupling	461,071	Oct. 13	811	207	57	163
Clements, Thomas, assignor to James Cunningham Son & Company, Rochester, N. Y. A tie-box	458,146	Aug. 18	1985	514	56	925
Clemmons, Samuel B., Springfield, Ohio. Cooling or refrigerating apparatus	449,615	Mar. 31	3824	958	54	1576
Clemmons, Charles, and J. C. Myers, Clinton, Ill. Double-acting force-pump	461,236	Oct. 13	1078	273	57	215
Clemmons, George F., Springfield, Mass. Differential mechanism for hoisting-machines	449,900	Apr. 7	387	98	55	76

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Clemmons, Joseph E. (See West, William, assignor.)						
Clemons, Joseph E., <i>et al.</i> (See West, William, assignor.) (Reissue.)						
Clephane, James O., Washington, D. C., assignor to National Typographic Company, of West Virginia. Linotype-machine	453,962	June 9	1183	309	55	1382
Clephane, James O., New York, N. Y., assignor to National Typographic Company, of West Virginia. Linotype-machine.	453,314	Aug. 25	2270	554	56	984
Clepper, Thomas J., Columbia, Pa. Loading and unloading apparatus	464,555	Dec. 8	842	207 208	57	1304
Cléret, Jules, Beauvais, France. Machine for piercing pearl buttons	450,056	Apr. 7	601	150	55	116
Cléret, Jules, Beauvais, France. Apparatus for cutting pearl buttons.	450,057	Apr. 7	602	150	55	116
Cléret, Jules, Beauvais, France. Machine for the manufacture of pearl buttons.	450,095	Apr. 7	655	165 166	55	128
Clerget, John B., Morrilton, Ark., assignor of one-half to J. W. Snyder. Rope-end clasp.	463,807	Nov. 24	2524	659	57	1063
Cleveland, Arthur, Lyons Farms, N. J. Basket carrier	445,283	Jan. 27	2002	540	54	432
Cleveland, Charles, Denver, Colo. Advertising device	452,663	May 19	1969	494	55	962
Cleveland, Charles E., Fond du Lac, Wis. Band-saw mill.	451,106	Apr. 28	2258	559 660	55	463
Cleveland, Charles E., Fond du Lac, Wis. Offsetting mechanism for saw-mill carriages	453,234	June 2	82	22	55	1164
Cleveland, George P., Coleman, Tex. Rotary plow	455,170	June 30	3151	799	55	1777
Cleveland, George P., Coleman, Tex. Gang-plow	455,171	June 30	3153	800	55	1777
Cleveland, Lewis W., assignor of three-fourths to C. L. Marston, L. A. Barker, and D. A. Meagher, Portland, Me. Electrical door-bell pull	447,748	Mar. 3	757	189	54	1261
Cleveland, Luman M., Dustin, Nebr. Neck-yoke	448,295	Mar. 17	1692	428	54	1459
Cleveland, William B., Cleveland, Ohio. Automatic safety cut-out	460,701	Oct. 6	278	67, 68	57	55
Cleveland, William B., Cleveland, Ohio. Circuit-controller	462,033	Oct. 27	2418	600	57	486
Cleveland Window Shade Company. (See Ludlow, Washington I., assignor.)						
Clewis, John. (See Cobb, John W., assignor.)						
Clewley, Frank, assignor of one-half to H. McGill, Philadelphia, Pa. Knitted bag and making the same	459,866	Sept. 22	2099	526 527	56	1494
Cliff, Edward, Castleton, N. Y. Swinging or drop arm for electric lamps	444,273	Jan. 6	465	118	54	92
Cliff, Edward, Newark, N. J. Spring-setting machine.	457,073	Aug. 4	225	56 57	56	576
Cliff, Edward, Newark, N. J. Car-spring	457,074	Aug. 4	227	58	56	576
Cliff, Edward, Newark, N. J. Semi-elliptic spring	463,342	Nov. 17	1789	468	57	913
Clifford, John, assignor to L. Wolf Manufacturing Company, Chicago, Ill. Outlet-valve and trap for bath-tubs, sinks, &c	458,997	Sept. 8	701	172	56	1210
Clifford, William P., Oskaloosa, Iowa, assignor to himself and S. P. Campbell, deceased; E. E. Campbell administratrix. Machine for polishing and glazing coffee, &c.	455,246	June 30	3266	828	55	1799
Climenson, William W., Honey Brook, Pa. Holder for pencils and crayons	444,974	Jan. 20	1613	413	54	331
Cline, Frederick N., assignor of two-thirds to F. A. Hecht and H. McFarlane, Chicago, Ill. Sash-weight-casting machine	451,707	May 5	401	97, 98	55	655
Cline, George J., Goshen, Ind. Sick-le-grinder	448,473	Mar. 17	1977	496	54	1521
Cline, George J., Goshen, Ind. Corn-planter	457,398	Aug. 11	793	204	56	688
Cline, George J., and J. R. Detwiler, Goshen, Ind. Fence-machine	446,327	Feb. 10	1364	332	54	782
Cline, Godfrey H., Jersey Shore, Pa. Bifocal spectacles	447,128	Feb. 24	2646	637	54	1053
Cline, Watson H., assignor of one-half to J. E. Hays, Camden, N. J. Paper-bag machine	458,559	Sept. 1	17	3, 4	56	1068
Cline, William, Clayton, Ind. Monument	464,494	Dec. 8	749	183	57	1286
Clinton, Charles M., Ithaca, and G. W. Kirkpatrick, assignors to H. M. Kirkpatrick, Macedon, N. Y. Grain-drill	444,290	Jan. 6	490	128	54	98
Clinton, Charles M., and J. McNamara, Ithaca, N. Y. Type-writing machine.	449,616	Mar. 31	3826	959 960	54	1876
Clinton, Charles M., and J. McNamara, assignors of two-thirds to C. M. Titus, Ithaca, N. Y. Type-writing machine	448,934	Mar. 24	2700	681 682	54	1658
Clinton, Richard, Portland, Oreg. Car-coupling	457,108	Aug. 4	270	71	56	585
Clinton Wire Cloth Company. (See Scarles, Benjamin, assignor.)						
Clock, Willard W. (See Tucker, William, assignor.)						
Clock, Willard W., Islip, N. Y. Cotton-planter	456,138	July 21	1320	348	56	270
Clogg, Levin H., Philadelphia, Pa. Umbrella or parasol	457,449	Aug. 11	868	225	56	702
Clopton, John B., Bastrop, Tex. Pneumatic cotton-conveyer	462,301	Nov. 3	136	33	57	576
Clopton, John B., assignor of one-half to A. C. Erhard, Bastrop, Tex. Paper-file	457,771	Aug. 18	1379	357	56	810
Close, John W., Buffalo, N. Y. Forming railway frogs and points	455,306	July 7	15	4	56	6
Close, Levi, Leona, Kans. Band-cutter and feeder for thrashing-machines	455,657	July 7	581	151	56	113
Close, Perry F., Lake Crystal, Minn. Corn-planter	463,484	Nov. 17	2008	525	57	957
Close, Philipp C., Augusta, Ga. Grinding, drying, and incorporating machine.	447,808	Mar. 10	880	219	54	1291
Close, Wilbur H., Atlanta, Ga. Railway-gate	463,485	Nov. 17	2009	525 526	57	957
Closs, Peter, Wollaston, assignor of one-half to J. W. Sanborn, Boston, Mass. Book-cover.	444,376	Jan. 6	613	157	54	121
Closser, Horace A. (See Smith, Thomson, and Closser.)						
Closser, Horace A., G. A. Billings, G. Thomson, and J. F. Knuth, Fairchild, Wis. Shoe-buckle.	454,853	June 30	2560	659	55	1664
Closz, Charles, St. Ansgar, Iowa. Grain-separator	455,997	July 14	1118	293 294	56	221
Closz, Charles, St. Ansgar, Iowa. Grain-separating screen	455,998	July 14	1121	294	56	221
Closz, Charles, St. Ansgar, Iowa. Grain cleaning and separating machine.	466,125	Dec. 29	3406	872 873	57	1824
Clotworthy, William P., Baltimore, Md. Packing baking-powder	462,109	Oct. 27	2539	631	57	508
Clotworthy, William P., Baltimore, Md. Packing baking-powder	462,206	Oct. 27	2687		57	537
Cloud, John W., Chicago, Ill. Car-coupling	451,889	May 5	671	170	55	706
Cloud, Samuel A., Lenni, Pa. Car-coupling	459,994	Sept. 22	2286	573	56	1528
Cloud, William H., assignor of one-half to J. W. Lappin, Kokomo, Ind. Rotary brush	455,658	July 7	583	152	56	113
Cloudman, Francis A., E. B. Newcomb, and F. H. Cloudman, Cumberland Mills, Me. Bleaching apparatus	458,822	Sept. 1	423	101	56	1146
Cloudman, Frank H. (See Cloudman, Newcomb, and Cloudman.)						
Cloudsley, John L., Westminster, England. Value and quantity register for gas-meters.	451,756	May 5	484	120	55	670
Clough, George W., assignor to G. W. and J. E. Heene, Cleveland, Ohio. Workman's time-recorder	451,398	Apr. 28	2728	677	55	552
Clough, Thomas A., assignor of one-half to T. J. Bigger, Philadelphia, Pa. Mechanical dyeing apparatus	459,744	Sept. 22	1908	481 548 549	56	1456
Clough, Warren H., and H. O. Manning, Lowell, Mass. Gig-mill	465,345	Dec. 15	2141	548 549	57	1560
Clough, William E., Oxford, Ohio. Speculum	447,761	Mar. 10	766	195	54	1274
Clouse, Joseph N., St. Louis, Mo. Wheel for vehicles	449,205	Mar. 31	3125	788	54	1748
Clouse, Noah, McPherson, assignor of one-half to J. P. Gandy, Gandy, Nebr. Cutting apparatus	457,075	Aug. 4	228	58	56	577
Clouse, William L., assignor of one-half to J. D. Jones, Tiffin, Ohio. Stop-motion mechanism	447,557	Mar. 3	473	116	54	1206

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Clouser, Samuel F., Brooklyn, assignor of fifty-one one-hundredths to R. N. Peterson, New York, N. Y. Lock-up nut.....	449,069	Mar. 24	2907	737	54	1698
Clover, Seth, assignor of one-half to T. Meyerhoefer, Erie, Pa. Sucker-rod elevator.....	444,332	Jan. 6	547	142	54	109
Clowes, Joseph W., New York, N. Y. Dentistry.....	446,769	Feb. 17	2047	510	54	930
Clucas, William, Cleveland, Ohio. Road-cart.....	460,949	Oct. 13	639	165	57	132
Clute, Nicholas, Schenectady, N. Y. Feeding boilers.....	454,889	June 30	2647	679	55	1679
Clute, Nicholas, Schenectady, N. Y. Feeding boilers.....	454,900	June 30	2649	679	55	1680
Clute, Nicholas, Schenectady, N. Y. Feed-water heater.....	455,389	July 7	148	37, 38	56	32
Cluthe, Charles, Toronto, Canada. Truss-pad.....	460,950	Oct. 13	640	165	57	132
Clyde Type Writer Company. (See Schuckers, Jacobs W., assignor.) (Roissue.)						
Clyne, James B., assignor to T. H. White, Cleveland, Ohio. Automatic feed mechanism for chucks.....	447,144	Feb. 24	2706	671	54	1062
Clynick, Horace V., New York, N. Y. Boiler-tube scraper.....	454,032	June 16	1285	335	55	1409
Clynick, Horace V., New York, N. Y. Sliding gate.....	465,776	Dec. 22	2820	723	57	1701
Coale, Joseph M., Baltimore, Md. Safety-valve.....	459,104	Sept. 8	885	212	56	1245
Coale, Joseph M., Baltimore, Md. Pop safety-valve.....	459,268	Sept. 8	1130	276	56	1293
Coale, Joseph M., Baltimore, Md. Pop safety-valve.....	461,237	Oct. 13	1079	273	57	215
Coan, James P. (See Coan, John B. and J. P.)						
Coan, John B. and J. P., Vincennes, Iowa. Sawing-machine.....	463,097	Nov. 10	1385	358	57	829
Coates, Crawford, Jr. (See Ross, John, assignor.)						
Coates, George H., and E. M. Long, Worcester, Mass.; said Long assignor to said Coates. Hair-clipping machine.....	445,947	Feb. 3	702	171	54	650
Coates, Robert, Chicago, Ill. Combined stand and carrier for bicycles.....	460,332	Sept. 29	2815	701	56	1637
Cobb, Frank E. (See Locke and Cobb.)						
Cobb, George B., Chicago, Ill. Radiator.....	445,926	Feb. 3	670	164	54	643
Cobb, George H., Elmira, N. Y. Photographic apparatus for holding and developing dry-plates.....	444,422	Jan. 13	695	181	54	145
Cobb, Henry, assignor of one-half to D. D. Gillett, Indianapolis, Ind. Shaft-bending machine.....	452,339	May 12	1455	360	55	856
Cobb, Henry B., Wilmington, Del. Underground electric-wire conduit.....	451,614	May 5	257	62	55	638
Cobb, Henry B., Wilmington, Del. Wire-cable machine.....	452,517	May 19	1744	439	55	919
Cobb, Henry H., et al. (See Blackman, George L. and F. S., assignors.)						
Cobb, Jennie S., Buffalo, N. Y. Dust-pan.....	461,700	Oct. 20	1890	467	57	375
Cobb, John W. (See Hargrave, Thomas C., assignor.)						
Cobb, John W., assignor of one-half to J. Clewis, Thomasville, Ga. Cotton-chopper.....	447,749	Mar. 3	758	189	54	1262
Cobb, Leander M., Boston, assignor of one-half to A. Colburn, Worcester, Mass. Pipe and nut wrench.....	464,274	Dec. 1	431	102	57	1216
Cobb, Lyman H., et al. (See Blackman, George L. and F. S., assignors.)						
Cobb, Samuel C. (See Hardie, Robert W., assignor.)						
Cobb, Samuel C., Janesville, Wis. Seeding-machine.....	454,457	June 23	1919	501	55	1538
Cobb, Samuel C., Janesville, Wis. Seeding-machine.....	454,458	June 23	1921	501	55	1539
Cobb, Sylvanus H., Hyde Park, Mass., assignor to Electrical Safety Company, Portland, Me. Electro magnetic cut-out.....	456,940	Aug. 4	16	4	56	536
Cobb, Walter, Jr. (See Wilder and Cobb.)						
Cobb, Walter T. G., Midway, Ala. Seeding attachment for plows.....	460,176	Sept. 29	2572	641	56	1591
Cobenzl, Albert, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Gray dye.....	454,535	June 23	2047		55	1562
Cobham, Frederick P., assignor of one-half to F. and A. C. Moreck, Jr., Warren, Pa. Extension-table.....	464,114	Dec. 1	160	40	57	1168
Cobham, Frederick P., assignor of one-half to F. and A. C. Moreck, Jr., Warren, Pa. Extension-table.....	464,115	Dec. 1	161	40	57	1168
Coble, Edwin E., Elizabethtown, Pa. Watch-maker's pliers.....	449,310	Mar. 31	3300	834	54	1779
Coburn, Azro A., assignor to Coburn Trolley Track Manufacturing Company, Holyoke, Mass. Trolley-support for step-ladders.....	463,217	Nov. 17	1585	412	57	875
Coburn, Larned, et al. (See Jacoby, William, assignor.)						
Coburn, Lemuel, Holyoke, Mass. Door-hanger.....	455,608	July 7	505	131	56	97
Coburn, Lemuel, Holyoke, Mass. Car-door lock.....	458,414	Aug. 25	2437	594	56	1016
Coburn, Lemuel, assignor to Coburn Trolley Track Manufacturing Company, Holyoke, Mass. Trolley-support for doors.....	447,505	Mar. 3	396	96, 97	54	1192
Coburn, Lemuel, and W. J. Sumner, assignors to Coburn Trolley Track Manufacturing Company, Holyoke, Mass. Door-hanger.....	460,501	Sept. 29	3067	770	56	1684
Coburn, Lemuel, and W. J. Sumner, assignors to Coburn Trolley Track Manufacturing Company, Holyoke, Mass. Support for ladders.....	463,218	Nov. 17	1586	413	57	875
Coburn Trolley Track Manufacturing Company. (See Coburn, Azro A., assignor.)						
Coburn Trolley Track Manufacturing Company. (See Coburn, Lemuel, assignor.)						
Coburn Trolley Track Manufacturing Company. (See Coburn and Sumner, assignors.)						
Coburn Trolley Track Manufacturing Company. (See Sumner, William J., assignor.)						
Cochennour, John S., and N. T. Remy, assignors to Olney Vehicle Spring Support Manufacturing Company, Olney, Ill. Vehicle-spring support.....	446,203	Feb. 10	1143	280	54	738
Cochey, Joseph H., et al. (See Leeman, Horace E., assignor.)						
Cochran, Alfred W., Birmingham, Ala. Knotter for sewing-machines.....	453,730	June 9	868	226	55	1320
Cochran, Alva C., Stauffer, Pa. Coke-oven plant.....	448,636	Mar. 24	2241	562	54	1570
Cochran, Edward A. (See Black, Stephen S., assignor.)						
Cochran, Edward A., assignor to Pasadena Patent Improvement Company, Pasadena, Cal. Pendulum-bar treadle.....	453,963	June 9	1184	309	55	1382
Cochran, Edward A., assignor of one-fifth to A. R. Metcalfe, Pasadena, Cal. Combination-tool.....	461,402	Oct. 13	1348	340	57	269
Cochran, Frederic B., New York, N. Y. Ice-cream freezer.....	448,935	Mar. 24	2703	682	54	1659
Cochran, Frederic B., New York, N. Y. Ice-cream freezer.....	458,097	Aug. 18	1907	496	56	911
Cochran, Henry, Chester, Pa. Reversible sign.....	455,919	July 14	1001	260	56	201
Cochran, Henry, Chester, Pa. Car-seat.....	461,544	Oct. 20	1637	400	57	328
Cochrane, John, Jr., Malden, Mass. Ornamenting knitted fabrics.....	454,854	June 30	2562		55	1664
Cockayne, Benjamin F. (See Baron, Alfred L., assignor.)						
Cocker, Joseph N., West Devonport, Tasmania. Potato-harvester.....	463,098	Nov. 10	1386	358	57	829
Cockfield, Joseph, Clinton, Iowa, assignor to M. Nathan, New York, N. Y. Lubricator.....	461,382	Oct. 13	1312	331	57	261
Cockle Separator Manufacturing Company. (See Bretney, Eugene, assignor.)						
Codman & Shurtleff. (See Hesse, Frank K., assignor.)						
Codwise, Beverly R., et al. (See Pollard, James M., assignor.)						
Cody, Miles S., Anacortes, Wash. Reaping-machine.....	450,860	Apr. 21	1891	462	55	382
Cody, Richard D., Winona, Minn. Combined settee and bed.....	444,529	Jan. 13	864	224, 225	54	180
Coe Brass Manufacturing Company. (See Ellis, John F., assignor.)						
Coe Brass Manufacturing Company. (See Hine, Adelbert P., assignor.)						
Coe, Charles E., St. Louis, Mo. Toy.....	465,162	Dec. 15	1840	467	57	1503

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Coe, Charles E., assignor of one-half to T. J. Cheney, St. Louis, Mo. Turfing implement.	448,845	Mar. 24	2572	646	54	1633
Coe, Henry L. (See McBride, John J., assignor.)						
Coe, Marion N., New Orleans, assignor of one-third to E. de Neveu, Monroe, La. Rain-water cut-off	450,909	Apr. 21	1958	480	55	396
Coen, Abraham, Gardner, Kans. Churn	460,951	Oct. 13	641	166	57	132
Coes, Loring, assignor to Coes Wrench Company, Worcester, Mass. Wrench	465,346	Dec. 15	2144	549	57	1560
Coes, Loring, assignor to Coes Wrench Company, Worcester, Mass. Wrench	465,347	Dec. 15	2145	549	57	1561
Coes, Loring, assignor to Coes Wrench Company, Worcester, Mass. Wrench	466,271	Dec. 29	3633	929	57	1867
Coes Wrench Company. (See Coes, Loring, assignor.)						
Coes, Zorester B., Hamilton, Ohio. Dissolving-view attachment for magic lanterns	453,623	June 9	708	183	55	1290
Coes, Zorester B., Hamilton, Ohio. Metal-planing machine	459,393	Sept. 15	1338	336	56	1343
Coes, Zorester B., assignor to Niles Tool Works, Hamilton, Ohio. Feed mechanism for lathes	462,792	Nov. 10	902	236	57	734
Coes, Zorester B., and G. T. Reiss, assignors to Niles Tool Works, Hamilton, Ohio. Filter-press	447,024	Feb. 24	2484	618	54	1021
Coffee, Robert W., Bedford City, Va. Machine for treating leaf-tobacco	445,270	Jan. 27	2079	536	54	429
Coffee, Robert W., Bedford City, Va. Tobacco-stemming machine	445,637	Feb. 3	186	50, 51	54	548
Coffee, Robert W., Bedford City, Va. Machine for removing stems from tobacco-leaves	446,811	Feb. 17	2112	525	54	944
Coffee, Robert W., Bedford City, Va. Tobacco-drier	452,902	May 26	2353	595	55	1045
Coffee, Robert W., Bedford City, Va. Rectal pessary	453,880	June 9	1076	281	55	1360
Coffelt, William H., and J. G. Viereck, Jr., Doe Bay, Wash. Sawing-machine	455,172	June 30	3156	800	55	1778
Coffey, Barton H. (See Burthorn, Edwin, assignor.)						
Coffey, Barton H., Philadelphia, Pa. Gas-engine	446,851	Feb. 24	2187	544	54	968
Coffey, Daniel and D., Rochester, N. Y. Wash-boiler	453,463	June 2	457	117	55	1234
Coffey, Dennis. (See Coffey, Daniel and D.)						
Coffield, Peter T., and C. H. Paxson, assignors to Springfield Gas Engine Company, Springfield, Ohio. Gas-engine	456,284	July 21	1550	411	56	313
Coffin, Charles H., San Francisco, Cal. Three-wheeled vehicle	452,425	May 19	1591	395	55	893
Coffin, Charles L., Detroit, Mich. Soldering or brazing by electricity	460,428	Sept. 29	2949	737	56	1662
Coffin, Charles L., Detroit, Mich. Welding or working metals electrically	462,207	Oct. 27	2688	676	57	537
Coffin, Charles L., Detroit, Mich. Welding metals electrically	463,486	Nov. 17	2010	526	57	957
Coffin, Charles L., Detroit, Mich. Electric welding or working of metals	463,487	Nov. 17	2011	526	57	958
Coffin, Elizabeth F., executrix. (See Coffin, John.)						
Coffin, Henry A., Burlington, Mass. Heat-regulating device for incubators	461,534	Oct. 20	1623	396	57	325
Coffin, John, deceased, Johnstown, Pa.; E. F. Coffin executrix and assignor to Cambria Iron Company. Apparatus for coating wire	451,220	Apr. 28	2454	606	55	499
Coffin, John, deceased, Johnstown, Pa.; E. F. Coffin executrix and assignor to Cambria Iron Company. Apparatus for annealing wire	451,221	Apr. 28	2455	607	55	499
Coffin, John, deceased, Johnstown, Pa.; E. F. Coffin, executrix, and assignor to Cambria Iron Company. Toughening steel	452,031	May 12	917	234	55	759
Coffin, John, deceased, Johnstown, Pa.; E. F. Coffin, executrix, and assignor to Cambria Iron Company. Reel for paying off wire	462,091	Oct. 27	2496	620	57	500
Coffin, John, deceased, Johnstown, Pa.; E. F. Coffin, executrix, and assignor to Cambria Iron Company. Metal-straightening machine	465,348	Dec. 15	2146	549	57	1561
Coffin, John, Johnstown, Pa., assignor to Cambria Iron Company, of Pennsylvania. Coating wire with other metal	455,529	July 7	367	94	56	72
Coffin, John, Johnstown, Pa., assignor to Cambria Iron Company, of Pennsylvania. Apparatus for coating wire with other metal	460,112	Sept. 29	2471	618	56	1571
Coffin, John W., and W. Shoemaker, Oskaloosa, Iowa. Adjustable hay shield and mangle	445,162	Jan. 27	1910	493	54	397
Cofrode, Joseph H. (See Greiner, Jacob H., assignor.)						
Coggeshall, Carol H., St. Louis, Mo. Check-marker	459,544	Sept. 15	1580	395	56	1387
Coggeshall, Charles P., Brooklyn, N. Y. Pantaloon-supporter	444,176	Jan. 6	325	79	54	66
Cogswell, Arthur B., Oswego, N. Y. Trousers-stretcher	447,868	Mar. 10	980	245	54	1311
Cogswell, Asa F., Humboldt, Nebr., and S. F. Woody, Kansas City, Mo. Miniature billiards	445,626	Feb. 3	170	45	54	545
Cogswell, George H., Bradford, Mass. Beating-out machine	446,990	Feb. 24	2423	602	54	1010
Cogswell, George H., Bradford, Mass. Heel-nailing machine	460,560	Oct. 6	25	6	57	7
Cogswell, George H., Bradford, Mass., assignor to Tripp Giant Leveller Company, Portland, Me. Jack for sole-machines	461,403	Oct. 13	1350	340	57	269
Cobanzic Stained Paper Company. (See Schneider, Charles, assignor.)						
Cohen, Emanuel G., Cleveland, Ohio. Machine for attaching tags	452,097	May 12	1054	267	55	780
Cohen, Joseph B., assignor of one-half to F. Lathrop, New York, N. Y. Window-sash	455,825	July 14	870	228	56	175
Cohen, Louis P. (See Herrmann and Cohen.)						
Cohen, Meyer, Philadelphia, Pa. Roach-trap	455,096	June 30	3021	768	55	1752
Cobick, George A. (See Pursell, Augustus, assignor.)						
Cohn, Julius D., Rottenburg, Germany. Seat and seat-cover for water-closets	457,809	Aug. 18	1441	374	56	822
Cohn, Julius M. (See Baker, Frank M., assignor.)						
Cohn, Max, Milwaukee, Wis. Toy	454,254	June 16	1603	421	55	1470
Cohn, Nathan. (See Knox, Charles L., assignor.)						
Colborne, Oliver, Chicago, Ill. Fence	466,126	Dec. 29	3413	873	57	1825
Colburn, Adoniram J., Greenville, Mich. Corn shock and bundle binder	453,038	May 26	2574	650	55	1088
Colburn, Albert L., New Haven, Conn. Mechanical movement	452,991	May 26	2504	634	55	1074
Colburn, Allen. (See Cobb, Leander M., assignor.)						
Colburn, Henry J., Toledo, Ohio. Variety wood-worker	448,320	Mar. 17	1731	438	54	1466
Colby, Albert H., assignor to himself and O. W. Owen, McHenry, Ill. Horse hay-rake. (Reissue)	11,182	July 28	2636	690	56	525
Colby, Allen, Brunswick, Me. Derrick	448,321	Mar. 17	1734	438	54	1467
Colby, Edward B., Brooklyn, N. Y. Stove	449,929	Apr. 7	426	106	55	83
Colby, Edward J., Chicago, Ill. Coin-controlled electric coil	445,220	Jan. 27	2002	515	54	415
Colby, Edward J., Chicago, Ill. Electric lock	446,509	Feb. 17	1658	404	54	853
Colby, Edward J., Chicago, Ill., assignor to Reiten Furnace Regulator Company, of Illinois. Furnace-regulator	444,691	Jan. 13	1110	287	54	227
Colby Wringing Company. (See Mason, William P., assignor.)						
Colcord, Ivory G., Des Moines, Iowa. Tooth for thrashing-machines	453,624	June 9	710	183	55	1290
Coldwell, Thomas, Newburg, N. Y. Dumb-waiter	450,283	Apr. 14	954	237	55	190
Cole, Adoniram J., Chicago, Ill., assignor to W. H. Hart, Jr., Philadelphia, Pa. Necktie-fastener	458,016	Aug. 18	1791	468	56	886

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Cole, Albert F. (See Cole, Henry W. and A. F.)						
Cole, Chesterfield M., Sulphur Springs, Ky. Car-coupling	459,958	Sept. 22	2236	561	56	1519
Cole, Elmer E. and O., Hudson, Mich. Machine for attaching vertical wires in a wire fence	450,791	Apr. 21	1770	431	55	361
Cole, Erskine A., Camden, N. J., assignor of two-thirds to M. Feigel and L. Rosenbush, New York, N. Y. Scuttle lock and operator	458,730	Sept. 1	278	67	56	1119
Cole, Francis J., and E. W. Grieves, Baltimore, Md. Card-case for freight-cars	444,240	Jan. 6	422	106	54	83
Cole, Francis J., and E. W. Grieves, Baltimore, Md. Dust-guard for car-axle boxes	444,241	Jan. 6	423	106	54	83
Cole, Francis J., and E. W. Grieves, Baltimore, Md. Freight-car-door fixture	444,242	Jan. 6	424	106	54	83
Cole, Francis J., and E. W. Grieves, Baltimore, Md. Bracket-support and stop for car-doors	444,274	Jan. 6	466	119	54	92
Cole, Frank, New York, N. Y. Game apparatus	446,552	Feb. 17	1721	422	54	866
Cole, Frank E., Boston, Mass. Mandolin	452,465	May 19	1671	419	55	905
Cole, Frederick W. (See Crane and Cole.)						
Cole, Frederick W., Newton, Mass. Signal-box	447,869	Mar. 10	982	246	54	1311
Cole, Frederick W., Newton, Mass. Electric signaling apparatus	465,991	Dec. 29	3197	816	57	1783
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Successive non-interference signal-box	445,795	Feb. 3	466	115	54	602
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Electric visual indicator	445,796	Feb. 3	469	{ 115 116 116 117 }	54	603
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Repeater	445,797	Feb. 3	474	{ 116 117 117 }	54	604
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Successive non-interference signal-box	445,798	Feb. 3	482	117	54	605
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Non-interference signal-box	445,799	Feb. 3	485	{ 117 118 }	54	606
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Successive non-interference signal-box	445,800	Feb. 3	487	118	54	606
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Successive non-interference signal-box	445,801	Feb. 3	489	{ 118 119 }	54	607
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Successive non-interference signal-box	445,802	Feb. 3	493	119	54	608
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Repeater	449,574	Mar. 31	3737	940	54	1860
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Non-interference signal-box	449,575	Mar. 31	3745	941	54	1861
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Non-interference signal-box	449,576	Mar. 31	3747	941	54	1862
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Electro-mechanical gong	452,931	May 26	2398	606	55	1053
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Electro-mechanical gong	452,932	May 26	2401	607	55	1054
Cole, Frederick W., assignor of one-half to M. G. Crane, Newton, Mass. Non-interference signal-box	453,993	June 9	1230	{ 320 321 321 }	55	1391
Cole, Henry, Cedar Hill, Ohio. Sawing-machine	459,959	Sept. 22	2237	562	56	1519
Cole, Henry J., Mossville, Tex. Car-coupling	457,848	Aug. 18	1508	393	56	834
Cole, Henry W. and A. F., Stourport, assignors to E. C. and C. W. Kemp and H. H. Wright, Birmingham, England. Gas-lamp	465,350	Dec. 15	2152	550	57	1562
Cole, James A. (See Hubbell and Cole.)						
Cole, John A., Chicago, Ill. Chronological chart	458,358	Aug. 25	2343	572	56	999
Cole, John A., Laurel, Md., and M. Cole, Washington, D. C. Device for clearing sewer-pipes	460,350	Sept. 29	2847	709	56	1644
Cole, John T., Sydney, New South Wales. Lock	460,561	Oct. 6	27	7	57	7
Cole, Joseph S., Albany, Ind. Ironing-table and rack	457,704	Aug. 11	1260	{ 325 326 }	56	777
Cole, Marcellus. (See Cole, John A. and M.)						
Cole, Marion L., assignor of one-half to H. E. Sewell, Toronto, Canada. Puzzle	456,554	July 28	2001	528	56	406
Cole, Moses N., Wellington, Kans. Attachment for cooking-stoves	446,430	Feb. 17	1534	377	54	829
Cole, Ogden. (See Cole, Elmer E. and O.)						
Cole, Okey K., and J. B. Hastings, assignors to Triple Wire Nail Machine Company, Parkersburg, W. Va. Machine for making nails	463,099	Nov. 10	1387	359	57	830
Cole, Samuel M., Mansfield, Tenn. Harrow	464,726	Dec. 8	1120	277	57	1357
Cole, Sidney, et al. (See Herson, John, assignor.)						
Cole, Van Rensselaer, and C. W. Neikirk, Republic, Ohio. Hay rake and loader	449,462	Mar. 31	3582	902	54	1831
Cole, William W., Eudora, Kans. Horse-cleaner	463,942	Nov. 24	2750	713	57	1105
Coleman, Arnold D., assignor of one-half to J. O. Armour, Chicago, Ill. Can-soldering machine	446,162	Feb. 10	1081	266	54	727
Coleman Carriage and Wagon Company. (See Coleman, Fredrick, assignor.)						
Coleman, Edward J. F., Providence, R. I. Block-shaping machine	461,866	Oct. 27	2155	531	57	435
Coleman, Fredrick, assignor to Coleman Carriage and Wagon Company, Ilion, N. Y. Spring-gear for vehicles	450,363	Apr. 14	1082	267	55	214
Coleman, Hamilton S. (See Thomas and Coleman.)						
Coleman Hardware Company. (See Nickel and Zattau, assignors.)						
Coleman, John A., Providence, R. I. Sewer-trap	459,440	Sept. 15	1413	354	56	1356
Coleman, Joseph E., assignor of one-half to B. Harris, Elmira, N. Y. Hack-saw frame	453,994	June 9	1234	321	55	1392
Coleman, Loomis H., Racine, assignor to H. G. Underwood, Milwaukee, Wis. Pen-rack	457,759	Aug. 11	1362	352	56	800
Coleman, Margaret A. (See Cummins, George W., assignor.)						
Coleman, Minor S., Cañon City, Colo. Baling-press	445,045	Jan. 20	1723	444	54	352
Coles, David H., Brooklyn, N. Y. Quilting	446,328	Feb. 10	1365	332	54	782
Coles, Herbert Z., Boston, Mass. Window-stop	464,630	Dec. 8	955	235	57	1327
Coley, Harrison W., et al. (See Hatch, Charles A., assignor.)						
Colladay, Joseph O. (See Herschell, William D., assignor.)						
Collett, Austin B., et al. (See Collett, Herbert E., assignor.)						
Collett, Herbert E., assignor of three-fourths to A. B. Collett, Lyun, M. M. Tobin and J. F. Gleason, Boston, Mass. Car-brake	460,113	Sept. 29	2473	618	56	1571
Collier, Charles, assignor to J. Munton, Maywood, and C. H. Ferry, Chicago, Ill. Ladle	453,437	June 2	416	108	55	1225
Collier, James D., and J. K. P. Miller, assignors of one-third to J. H. Kirby, Woodville, Tex. Electric car-brake	462,793	Nov. 10	904	{ 236 237 }	57	734
Collier, James D., and J. K. P. Miller, assignors of one-third to J. H. Kirby, Woodville, Tex. Electrical connection and signal for railway-cars	462,794	Nov. 10	909	237	57	736
Collier, James D., and J. K. P. Miller, assignors of one-third to J. H. Kirby, Woodville, Tex. Electric car-coupling	462,807	Nov. 10	930	{ 242 243 }	57	740
Collier, John J., Renault, Ill. Desk	444,663	Jan. 13	1064	277	54	218
Collier, Joseph, Pigeon Run, Ohio. Safety device for elevators	451,399	Apr. 28	2729	677	55	553
Collins, Caleb G., Kearney, N. J., assignor to C. A. Stevens, New York, N. Y. Purifying brine	459,236	Sept. 8	1080	264	56	1282

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Collins, Charles M., South Bend, Ind. Power-hammer	456,616	July 28	2106	556	56	427
Collins, Daniel L., <i>et al.</i> (See Poole, Edward, assignor.)						
Collins, David W., assignor to himself and J. A. Collins, Philadelphia, Pa. Wrapper-paster	459,269	Sept. 8	1131	277	56	1293
Collins, Edwin S., Rogers, Ark. Car-loader	466,003	Dec. 29	3220	520	57	1786
Collins, Frank W. (See Clark and Collins.)						
Collins, George, assignor of one-half to R. B. Wheeler, Detroit, Mich. Pipe-coupler	463,119	Nov. 10	1433	371	57	838
Collins, George C., Boliver, Mo. Car-coupling	454,978	June 30	2811	715	55	1711
Collins, John J., Washington, D. C. Electrolyte for galvanic batteries	448,936	Mar. 24	2705		54	1659
Collins, John W., Washington, D. C. Air-purifier	447,942	Mar. 10	1099	276	54	1333
Collins, Joseph A. (See Collins, David W., assignor.)						
Collins, Joseph H., Jr., deceased, Philadelphia, Pa., (R. S. and W. J. Collins administrators,) and I. N. Kuapp, Greenwich, Conn.; said administrators and said Knapp assignors to United Gas Improvement Company, Philadelphia, Pa. Manufacturing gas	463,139	Nov. 17	1463	{ 379 380 }	{ 57 }	853
Collins, Joseph V., Oxford, Ohio. Compasses	459,519	Sept. 15	1538	384	56	1379
Collins, Maggie U., <i>et al.</i> (See Collins, William G., assignor.)						
Collins, Oliver K., Camden, N. J. Hair-picker	462,034	Oct. 27	2419	600	57	486
Collins Plow Company. (See Brown and Gehrt, assignors.)						
Collins, Rebecca S., <i>et al.</i> , administrators. (See Collins and Knapp.)						
Collins, Samuel, Philadelphia, Pa. Sash-holder	453,881	June 9	1077	281	55	1360
Collins, Samuel, Philadelphia, Pa., assignor of one-half to J. B. and S. A. Love. Railway-car or other window sash	452,098	May 12	1054	267	55	781
Collins, Thomas. (See Wahlun, Lundström, and Collins.)						
Collins, Thomas E., <i>et al.</i> (See Butler, Howard H., assignor.)						
Collins, William F., assignor to Waddell-Entz Electric Company, New York, N. Y. Dynamo-electric machine	450,219	Apr. 14	843	{ 211 212 }	{ 55 }	170
Collins, William F., Chicago, Ill., assignor, by mesne assignments, to Crocker-Wheeler Electric Motor Company, New York, N. Y. Electric motor or dynamo-electric machine	451,894	May 5	677	171	55	707
Collins, William G., East Orange, N. J. Stair-carpet fastener	444,589	Jan. 13	959	249	54	199
Collins, William G., East Orange, N. J. Stair-carpet fastener	456,285	July 21	1558	412	56	315
Collins, William G., East Orange, N. J. Inkstand	461,126	Oct. 13	883	229	57	177
Collins, William G., assignor to M. U. Collins and H. J. Weber, New York, N. Y. Automatic electro-pneumatic-tube system	460,081	Sept. 22	2419	605	56	1554
Collins, William J., <i>et al.</i> , administrators. (See Collins and Knapp.)						
Collinson, William J., Hazleton, Pa. Coffin lid and hinge	463,488	Nov. 17	2012	{ 526 527 }	{ 57 }	958
Collom, Martin H., Denver, Colo. Electric meter	464,063	Dec. 1	86	22	57	1153
Collord, Charles A. (See Wiggins, Collord, and Rathbun.)						
Collum, Annie K. (See Collum, George S., assignor.)						
Collum, George S., assignor to A. K. Collum, Hartford, Conn. Cooling-slab for confectioners	449,577	Mar. 31	3749	941	54	1862
Colorado Iron Works. (See Nesmith and Morcom, assignors.)						
Colsten, William A., Great Bend, Pa. Eaves-trough machine	449,107	Mar. 31	2971	751	54	1719
Colt, W. D. (See McGowan, John C., assignor.)						
Colton, Frank B. (See Giroud, Peter G., assignor.)						
Colton, George A., Chicago, Ill. Door-bell	460,114	Sept. 29	2474	618	56	1572
Colton, George A., Chicago, Ill. Mallet	460,115	Sept. 29	2476	618	56	1572
Colton, George A., assignor to Munger-Colton Manufacturing Company, Chicago, Ill. Sliding-door latch	449,070	Mar. 24	2908	737	54	1698
Columbia Car Coupler Company. (See Gifford, Ezra N., assignor.)						
Columbian Novelty Company. (See Fenner, Richard E., assignor.)						
Columbus Cash Register Company. (See Watt, Sern P., assignor.)						
Columbus Cycle Company. (See Rhoades, Hal V. and W. H., assignors.)						
Columbus Machine Company. (See Watt, Sern P., assignor.)						
Colville, Frank C., Oakland, Cal. Electric annunciator	466,063	Dec. 29	3315	846	57	1806
Colvin, George E. (See Stewart, Reverly B., assignor.)						
Colvin, Henry F., Philadelphia, Pa. Locomotive-engine	463,856	Nov. 24	2607	678	57	1079
Colvin, Robert J., Lancaster, Pa. Rail-joint	460,848	Oct. 6	480	122	57	95
Colvin, Thomas W., Delphi, Ind. Harness-saddle	461,404	Oct. 13	1352	341	57	269
Colwell, George, <i>et al.</i> (See Oviatt, Solomon E., assignor.)						
Combs, George E., Utica, N. Y. Spring for vehicles	454,714	June 23	2335	600	55	1615
Combs, Gideon M., Preston, Kans., assignor of one-half to G. C. Brown, Gallatin, Mo. Sickle-bar	464,453	Dec. 1	684	168	57	1265
Comings, William R., New Britain, Conn. Method of and machine for making cup-shaped articles	448,748	Mar. 24	2425	{ 606 607 604 405 }	{ 54 56 }	1605 308
Commander, Herman, Milwaukee, Wis. Wave-power	456,266	July 21	1524	{ 253 254 }	{ 54 }	202
Commercial Envelope Company. (See De Long, Oscar A., assignor.)						
Commerford, Martin A. (See Mayell, Tenbroeck B., assignor.)						
Commons, Isaac, Piqua, Ohio. Mnstache-trainer	447,633	Mar. 3	587	145	54	1228
Complete Combustion Company. (See Ayer, George A., assignor.)						
Compress Wheel Company. (See Cummins, Charles T., assignor.)						
Compton-Bracebridge, John E. (See Raskazoff and Compton-Bracebridge.)						
Compton, Henry T., <i>et al.</i> (See Ludwig, John C., assignor.)						
Compton, John C., <i>et al.</i> (See Jackson, James E., assignor.)						
Compton, Norris M., and W. H. Longcoy, Sullivanville, N. Y. Thill-coupling	444,333	Jan. 6	547	142	54	110
Comstock, Albert, <i>et al.</i> (See Putnam, Theodore A. B., assignor.)						
Comstock, Alphonso S., Evanston, Ill. Tent	444,605	Jan. 13	979	{ 253 254 }	{ 54 }	202
Comstock, Charles, Indianapolis, Ind. Jump-seat for vehicles	449,095	Mar. 24	2946	747	54	1706
Comstock, Charles, Indianapolis, Ind. Short-turning vehicle	457,508	Aug. 11	969	247	56	720
Comstock, Charles F., Danbury, Conn. Car-coupling	457,076	Aug. 4	230	58	56	577
Comstock, George S., assignor to Hauck & Comstock, Mechanicsburg, Pa. Upsetting-machine	459,995	Sept. 22	2287	573	56	1528
Comstock, H. G. (See Forgason, Henry C., assignor.)						
Comstock, Henry W., <i>et al.</i> (See Berry, Robert C., assignor.)						
Comstock, Wallace B., Allendale, Mich. Wardrobe-hook	445,948	Feb. 3	703	171	54	651
Comstock, William O., New York, N. Y. Lining for pulp-digesters	453,076	May 26	2643	666	55	1101
Conant, George P., Geneva Lake, Wis. Drawing or cutting table	450,735	Apr. 21	1680	{ 406 407 }	{ 55 }	343
Conant, Richard O. (See Stickney, Henry R., assignor.)						
Conant, William A., Paw Paw Grove, Ill. Obstetrical harness	447,870	Mar. 10	983	246	54	1311
Concord Foundry Company. (See Badger, Frank L., assignor.)						
Condé, Swits, Oswego, N. Y. Knit fabric	462,470	Nov. 3	400	98	57	626

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Conder, William W., Tillamook, Oreg. Milk-cooler	451,299	Apr. 28	2589	639	55	527
Condict, George H., Philadelphia, Pa., assignor to Electric Car Company of America, of Pennsylvania. Commutator-brush holder for electric motors	445,521	Jan. 27	2436	635	54	500
Condit, Ezekiel C., Denver, Colo. Valve for air-flues	457,810	Aug. 18	1442	375	56	832
Condit, Ezekiel C., Denver, Colo. Dry closet	462,373	Nov. 3	251	61, 62	57	598
Condit, Ezekiel C., Denver, Colo. Furnace	464,241	Dec. 1	367	89, 90	57	1203
Condit, Ezekiel C., Denver, Colo. Dry closet	464,814	Dec. 8	1246	312	57	1831
Condon, John W., Rochester, Ind. Beater and mixer for confectioners' use	449,463	Mar. 31	3583	902	54	1831
Cone, John, assignor to P. Frei and N. Barth, Marquette, Mich. Oscillating steam-engine	453,964	June 9	1187	309	55	1383
Cone, Virginia M., Alameda, Cal. Noiseless chamber attachment	455,907	July 14	983	256	56	197
Cone, William E., Memphis, Mo. Float-valve	463,286	Nov. 17	1691	442	57	896
Conen, Alexander J., Louisville, Ky. Cloth-scale	450,002	Apr. 7	529	132	55	103
Conestoga Cigar Machine Company. (See Martin, Edwin K., assignor.)						
Congdon, Charles. (See Reed and Congdon.)						
Congdon, Charles H., St. Paul, Minn. Chart-holder	450,284	Apr. 14	957	238	55	191
Conger, Charles A., Seymour, Iowa. Egg-tester	451,318	Apr. 28	2616	645	55	532
Conine, Frederick B., Merrivale, Tex. Device for marking live stock	462,110	Oct. 27	2539	631	57	508
Conkey, Edward L., Revere, assignor of one-half to C. E. Hall & Co., Boston, Mass. Marble molding and dishing machinery combined	461,094	Oct. 13	843	218	57	169
Conklin, Arthur, Grant's Pass, Oreg. Fruit-drier	448,846	Mar. 24	2574	646	54	1634
Conklin, Charles A., Adrian, Mich. Coffin-fastener	456,401	July 21	1746	461	56	350
Conklin, George W., Arlington, N. J., assignor, by mesne assignments, to Flos Shade Roller Company. Shade-roller bracket	454,568	June 23	2091	539	55	1570
Conklin, Joseph I., Brooklyn, N. Y. Electric-lighting system	462,237	Nov. 3	25	6	57	556
Conklin, Joseph I., Brooklyn, N. Y. Conductor and guide for electric-railway trolleys	463,715	Nov. 24	2399	629	57	1039
Conkling, Gurdon. (See Conkling, John P., assignor.)						
Conkling, Gurdon, Glens Falls, N. Y. Compound for preparing iron ore for furnace use	464,815	Dec. 8	1247		57	1382
Conkling, John P., New York, assignor to G. Conkling, Glens Falls, N. Y. Magnetic-ore separator	451,369	Apr. 28	2685	665	55	545
Conkling, John P., assignor to G. Conkling, Glens Falls, N. Y. Magnetic-ore separator	451,370	Apr. 28	2686	666	55	545
Conkling, Marcus W., et al. (See Morrell, Robert, assignor.)						
Conkling, William G., Glens Falls, N. Y. Ore-separator	464,816	Dec. 8	1248	312	57	1382
Conley, Michael R. (See Lancaster and Conley.)						
Conlon, John H. (See Shiek, Daniel W., assignor.)						
Conly, John. (See Keller and Conly.)						
Conly, Mahlon S., Chicago, Ill. Track-instrument for railway-signals	446,403	Feb. 10	1486	366	54	806
Conly, Mahlon S., assignor of two-thirds to E. O. Abbott and F. H. Kilbourn, Chicago, Ill. Governor for dynamos	459,810	Sept. 22	2004	504	56	1475
Conly, Mahlon S., assignor of two-thirds to E. O. Abbott and F. H. Kilbourn, Chicago, Ill. Governor for dynamos	459,811	Sept. 22	2008	504	56	1475
Connable, Augustus M., et al. (See Connable and Harper, assignors.)						
Connable, Fanny M., et al. (See Connable and Harper, assignors.)						
Connable, Frank L., and T. V. Harper, said Harper assignor and said Connable assignor of one-twelfth to A. M. and F. M. Connable, Xenia, Ohio. Electrical surgical instrument	463,785	Nov. 24	2490	650	57	1056
Connaughton, Thomas. (See Garner and Connaughton.)						
Connell, James, Nottingham, England. Cigar-bunching machine	450,959	Apr. 21	2044	504 } 505 } 633 } 634 }	55 } 55 } 56 }	412 } 483 }
Connell, James, Nottingham, England. Cigar-bunching machine.	456,798	July 28	2403		56	483
Connell, Lewis E. (See West, Charles F., assignor.)						
Connell, M., et al. (See Davis, John T., assignor.)						
Connell, William H., Wilmington, Del. Rail-joint	451,454	May 5	10	3	55	581
Connell, William H., Wilmington, Del. Rail-joint	452,833	May 26	2237	561 } 228 } 229 }	55 } 55 }	1024 } 705 }
Connolly, John S., Plainfield, N. J. Gas-motor	457,459	Aug. 11	884	229 } 229 } 230 }	56 } 56 }	705 } 705 }
Connolly, John S., Plainfield, N. J. Gas-motor	457,460	Aug. 11	889	230 }	56	705
Conner, Benjamin F., Columbia, Pa. Bell and hopper for blast-furnaces	445,850	Feb. 3	560	136	54	621
Conner, Benjamin F., Columbia, Pa. Bell and hopper for blast-furnaces	460,849	Oct. 6	481	123	57	96
Conner, George. (See Hughes and Conner.)						
Conner, Joseph, New York, N. Y. Gun-lock	464,215	Dec. 1	329	80	57	1196
Conner, Laurence H., Grand View, Tex. Means for operating churns	455,739	July 14	729	191	56	149
Conner, Theodore M., Los Angeles, Cal. Netted-wire-fabric machine	459,926	Sept. 22	2196	552	56	1511
Conner, William A., assignor to Standard Underground Cable Company, Pittsburg, Pa. Electric cable	448,604	Mar. 17	2179	544	54	1550
Conner, William A., assignor to Standard Underground Cable Company, Pittsburg, Pa. Electric cable	452,340	May 12	1456	361	55	857
Conner, William A., assignor to Standard Underground Cable Company, Pittsburg, Pa. Electric cable	452,341	May 12	1457	361	55	857
Conner, William A., assignor to Standard Underground Cable Company, Pittsburg, Pa. Electric cable	452,342	May 12	1458	361	55	857
Conner, William A., and J. W. Marsh, assignors to Standard Underground Cable Company, Pittsburg, Pa. Electric cable	466,268	Dec. 29	3627	928	57	1866
Connery, James W., Philadelphia, Pa. Hot-air furnace	458,519	Aug. 25	2606	634 } 635 }	56 }	1048 }
Connett, M. F. (See Connett, Matthew F., assignor.)						
Connett, Matthew F., Pine Bluff, Ark., assignor to M. F. Connett, Davenport, Iowa. Fabric-turfing implement	463,753	Nov. 24	2450	641	57	1049
Connett, Matthew F., Jr., assignor to L. J. Brown, N. W. Warren, P. H. Blanchard, and T. W. Hartford, Davenport, Iowa. Hand fence-machine	448,410	Mar. 17	1875	472	54	1494
Connley, John, and H. J. Vieth, Barrington, R. I.; said Vieth assignor to said Connley. Conveyer	465,463	Dec. 22	2322	597	57	1606
Connolly, Frank H. (See Skinner and Connolly.)						
Connon, John R., Flora, Canada, assignor to G. and M. Gennert, Greenville, N. J. Slide-shutter for photographic cameras	451,027	Apr. 28	2154	532	55	441
Connons, James, et al. (See Courtright, Edgar, assignor.)						
Connor, Patrick W., Kansas City, Mo. Car-door fastener	464,242	Dec. 1	370	90	57	1804
Connor, Thomas D. (See Connor, Thomas R. and T. D.)						
Connor, Thomas H., Otter River, Mass. Tension device for yarn-dressing machines	454,255	June 16	1604	422	55	1471
Connor, Thomas R. and T. D. Wilkes-Barré, Pa. Velocipede	452,541	May 19	1781	448	55	925
Conover, George W., Philadelphia, Pa. Mouth-piece for wind-instruments	452,448	May 19	1633	407	55	900
Conrad, Charles F., administrator. (See Wood, William G.)						
Conrad, Sterling W., Hanford, Cal. Insect-guard	460,429	Sept. 29	2949	737	56	1662
Conrad, Sterling W., and J. H. Lake, Hanford, Cal. Windmill	460,430	Sept. 29	2950	738	56	1663

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Conradson, Conrad M., Madison, Wis. Electric street-car driving-gear	448,910	Mar. 24	2670	671	54	1652
Conradson, Conrad M., Madison, Wis. Drip-pan for metal-turning lathes	450,481	Apr. 14	1269	309	55	248
Conradson, Conrad M., Madison, Wis. Sectional journal-box	459,627	Sept. 15	1726	433	56	1414
Conradson, Conrad M., Madison, Wis. Device for varying the speed of machinery	460,284	Sept. 29	2740	682	56	1623
Conroy, Charles C., Buffalo, N. Y. Protector for jaws of wrenches	448,124	Mar. 10	1378	353	54	1389
Conroy, Charles C., Detroit, Mich. Sealing packages	455,962	July 14	1067	280	56	211
Conroy, Daniel. (See Vernay, Albert H., assignor.)						
Conroy, Thomas, assignor of two-thirds to A. W. Dold and L. P. Fubman, Kansas City, Mo. Electric-arc lamp	462,624	Nov. 3	635	160	57	673
Conroy, William J., Aylmer, Canada. Ensilage harvester and chopper	465,127	Dec. 15	1790	432	57	1494
Consens, Fordice, Watertown, N. Y. Brush	455,740	July 14	729	191	56	149
Considine, John S., Lock Haven, Pa. Wood-bundling machine	459,812	Sept. 22	2011	505	56	1476
Consolidated Brake Adjuster Company. (See Eames, Elisha D., assignor.)						
Consolidated Car Heating Company. (See McElroy, James F., assignor.)						
Consolidated Car Heating Company of West Virginia. (See Sewall, James H., assignor.)						
Consolidated Fastener Company. (See Douillet, Louis A., assignor.)						
Consolidated Fastener Company. (See Hall, Frank E., assignor.)						
Consolidated Hand Method Lasting Machine Company. (See Matzeliger, Jan E., assignor.)						
Consolidated Metallic Fastening Company. (See Weeks, Horace, assignor.)						
Consolidated Safety Pin Company. (See Deming, Charles G., assignor.)						
Consolidated Safety Pin Company. (See Henry, Robert G., assignor.)						
Constant, Boston S., Logansport, assignor of one-half to N. M. Bowen, Indianapolis, Ind. Fanning-mill	458,843	Sept. 1	458	110	56	1153
Continental Iron Works. (See Hatfield, Samuel P., assignor.)						
Continental Oxygen Company. (See Murray, Kenneth S., assignor.)						
Converse, Edmund. (See Percival, Herbert E., assignor.)						
Converse, Edmund. (See Turner, William A., assignor.)						
Converse, Maschil D., New York, N. Y. Pivotal rivet and riveting	460,952	Oct. 13	642	166	57	132
Converse, Rufus A., Minneapolis, Minn. Loading and unloading device	463,889	Nov. 24	2663	694	57	1088
Convert, Charles F. A., assignor to Liquid Carbonic Acid Manufacturing Company, Chicago, Ill. Valve	465,835	Dec. 29	2916	746	57	1730
Conway, Alexander C. (See Morton, Rufus J., assignor.)						
Conway, Harrison V., Boone, Iowa. Combined harrow, seeder, and mower	445,543	Feb. 3	22	6	54	515
Conway, Katharine, Philadelphia, Pa. Toilet-cream	444,743	Jan. 13	1200		54	243
Conway, Samuel R., and J. S. White, London, England. Glove	460,463	Sept. 29	3001	752	56	1672
Cook, Albert E. (See Cook and Britton.)						
Cook, Albert E. (See Cook and Britton, assignors.)						
Cook, Almerin S., assignor to H. W. Leach, trustee, Cambridge, Mass. Brush for dynamos	444,794	Jan. 13	1271	329	54	256
Cook, August D., Lawrenceburg, Ind. Well-strainer	455,907	July 7	17	4	56	6
Cook, August D., and G. E. Willers, Lawrenceburg, Ind.; said Willers assignor to said Cook. Valve for steam-pumps	460,562	Oct. 6	29	7, 8	57	7
Cook, Austin, and W. L. Harvey, assignors of one-third to T. J. Parsons, San Francisco, Cal. Separator	445,133	Jan. 20	1852	{ 479 } { 480 }	{ 54 }	{ 377 }
Cook, Barney R., Edinburg, Ill. Rail-joint	459,996	Sept. 22	2228	573	56	1529
Cook, Burton H., Brooklyn, N. Y. Culinary grater	448,794	Mar. 24	2494	624	54	1619
Cook, Burton H., Brooklyn, N. Y. Machine for cleaning and polishing boots and shoes	459,880	Sept. 22	2122	{ 533 } { 534 }	{ 56 }	{ 1498 }
Cook, Burton H., Brooklyn, N. Y. Ash-sifter	464,183	Dec. 1	266	65	57	1186
Cook, Charles I. and A. E., and H. M. Britton, Odebolt, Iowa. Portable corn-crib and granary	450,506	Apr. 14	1305	320	55	257
Cook, Charles I., and H. M. Britton, assignors to themselves and A. E. Cook, Odebolt, Iowa. Portable corn-crib	450,505	Apr. 14	1304	319	55	257
Cook, Charles L., New York, N. Y. Drawer	462,302	Nov. 3	137	34	57	576
Cook, David N., Salem, Mass. Trolley device for electric railways	452,542	May 19	1782	449	55	926
Cook, Eugene, Kalamazoo, Mich. Vehicle-spring	445,974	Feb. 10	750	184	54	659
Cook, Eugene, Kalamazoo, Mich. Vehicle-spring	465,992	Dec. 29	3202	816	57	1783
Cook, Everett, Auburn, Me. Pipe-wrench	461,894	Oct. 27	2200	543	57	444
Cook, Frank S., Elkhart, Ind. Wrench	464,751	Dec. 8	1153	287	57	1363
Cook, Frank S., assignor to Capitol Manufacturing Company, Chicago, Ill. Wrench	447,665	Mar. 3	625	155	54	1236
Cook, Frank S., assignor to Capital Manufacturing Company, Chicago, Ill. Wrench	452,518	May 19	1746	439	55	919
Cook, Frank S., assignor to Capital Manufacturing Company, Chicago, Ill. Spanner-wrench	466,157	Dec. 29	3458	874	57	1834
Cook, Frederic, New Orleans, La. Carrier for feeding bagasse-furnaces	449,464	Mar. 31	3585	903	54	1831
Cook, Frederic, Bay St. Louis, Miss. Bagasse-furnace	455,173	June 30	3157	801	55	1778
Cook, Frederick D., Allegheny, Pa. Tile	455,659	July 7	584	152	56	114
Cook, George, Boston, Mass. Upright piano	444,817	Jan. 20	1308	340	54	273
Cook, George, Allendale, N. J., assignor to Patent Button Company, Waterbury, Conn. Button	464,149	Dec. 1	213	50	57	1177
Cook, George J., New Orleans, La. Bulkhead	459,973	Sept. 22	2258	567	56	1523
Cook, Henry, Philadelphia, Pa. Amalgamator	458,823	Sept. 1	425	101	56	1147
Cook, Henry F., St. Louis, Mo. Flowing well	459,826	Sept. 22	2034	510	56	1481
Cook, Henry F., assignor to Fahys Watch Case Company, Sag Harbor, N. Y. Knurling-tool	454,788	June 23	2440	627	55	1635
Cook, Hiram B., San Francisco, Cal. Striking-bag	445,747	Feb. 3	382	97	54	588
Cook, Hugo, Dayton, Ohio. Cash-register	444,334	Jan. 6	548	142	54	110
Cook, Hugo, Dayton, Ohio. Cash register and indicator	445,671	Feb. 3	249	{ 67 } { 68 } { 69 }	{ 54 }	{ 561 }
Cook, Hugo, Dayton, Ohio. Cash register and indicator	448,937	Mar. 24	2705	683	54	1659
Cook, Hugo, Dayton, Ohio. Cash register, recorder, and indicator	449,311	Mar. 31	3300	{ 834 } { 835 }	{ 54 }	{ 1779 }
Cook, Hugo, Dayton, Ohio. Cash register and indicator	450,364	Apr. 14	1083	267	55	214
Cook, Hugo, Dayton, Ohio. Cash-register	450,365	Apr. 14	1098	{ 268 } { 269 }	55	216
Cook, Hugo, Dayton, Ohio. Cash register, indicator, and recorder	464,294	Dec. 1	458	{ 109 } { 110 } { 111 }	{ 57 }	{ 1222 }
Cook, Hugo, Chillicothe, Ohio. Device for controlling the shuttle-thread of sewing-machines	454,610	June 23	2180	563	55	1585
Cook, James M. (See Jordan and Cook.)						
Cook, Jerome W., and C. E. Patric, assignors to Superior Drill Company, Springfield, Ohio. Fertilizer-distributor	450,308	Apr. 14	997	247	55	198
Cook, Jerry, Monterey, Cal. Building-block	460,177	Sept. 29	2573	642	56	1591
Cook, John. (See Tideman and Cook.)						
Cook, John, Trenton, N. J. Thill-coupling	456,019	July 14	1157	303	56	928
Cook, John A., Buffalo, N. Y. Telescopic rule	450,141	Apr. 14	730	183	55	148
Cook, John H., Washington, D. C. Vehicle-cleaning device	447,446	Mar. 3	287	73	54	1171

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Cook, John J., Columbus Junction, Iowa. End-gate fastening	444,313	Jan. 6	521	136	54	104
Cook, John W., Jefferson, Oreg. Potato-digger	463,943	Nov. 24	2750	713	57	1105
Cook, John W. B., assignor of one-half to D. W. Brummett, Camden, Ark. Nut-lock	452,945	May 26	2434	614	55	1061
Cook, Moses C. (See Cook, William S. and M. C.)						
Cook, Moses C. (See Cook and Morrow.)						
Cook, Moses G., Lynn, Mass. Cuff-holder	452,870	May 26	2295	576	55	1034
Cook, Moses G., assignor to J. E. and A. L. Hall, Ashfield, Mass. Separator-plate for sewing-machine rufflers	457,254	Aug. 4	514	135	56	629
Cook, Nathan H., Abilene, Tex. Tire-heater	454,205	June 16	1536	404	55	1457
Cook, Stephen S., assignor to J. L. Branson, Philadelphia, Pa. Loop-holder mechanism for knitting-machines	464,313	Dec. 1	488	117	57	1227
Cook, Thomas R., assignor of one-third to H. M. Caylor, Noblesville, Ind. Machine-gun	458,268	Aug. 25	2198	536 537 538	56	971
Cook, Wells M., Kansas City, Mo. Barrel-truck	457,811	Aug. 18	1444	376	56	822
Cook, William P., et al. (See McCullough, George C., assignor.)						
Cook, William H., Philadelphia, Pa. Cover for pen-holders	462,625	Nov. 3	636	161	57	674
Cook, William S., Jackson, Ga. Cultivator	449,522	Mar. 31	3666	921	54	1848
Cook, William S. and M. C., South Omaha, Nebr. Electric railway-signal	446,546	Feb. 17	1710	419 420	54	864
Cook, William S. and M. C., South Omaha, Nebr. Railway-car telegraphy	447,943	Mar. 10	1100	276	54	1333
Cook, William S. and M. C., and A. H. Morrow, South Omaha, Nebr. Automatic electric fire-alarm system	460,464	Sept. 29	3002	752 753	56	1672
Cook, Winfield S. (See Westbrook and Cook.)						
Cook, Winfield S., et al. (See Pinch, Frank, assignor.)						
Cooke, Charles N., Wheatland, Ind. Railway-car	461,816	Oct. 27	2080	513	57	420
Cooke, Ernest W., Chicago, Ill. Lubricant	454,588	June 23	2130	55	55	1577
Cooke, Ernest W., Chicago, Ill. Cage for journal-bearings	458,520	Aug. 25	2609	635	56	1049
Cooke, Ernest W., Chicago, assignor to American Roller Bearing Company, Western Springs, Ill. Lubricant	455,012	June 30	2875	55	55	1724
Cooke, Ernest W., Chicago, assignor to American Roller Bearing Company, Western Springs, Ill. Lubricant	455,013	June 30	2876	55	55	1724
Cooke, Ernest W., assignor to American Roller Bearing Company, Western Springs, Ill. Shaft-hanger	458,731	Sept. 1	279	67	56	1119
Cooke, Horatio G., Warsaw, Ill. Money-changer	448,637	Mar. 24	2241	563	54	1570
Cooke, Osborn R., Salem, Ohio. Fruit-jar holder	454,396	June 16	1819	475	55	1510
Cooke, Watts, and D. Carrough, Paterson, N. J. Upsetting-machine	455,541	July 7	394	103	56	76
Cooke, William O., Chicago, Ill. Portable railway-switch	452,261	May 12	1319	330	55	832
Cooke, William P. (See Stoddard, Arthur H., assignor.)						
Cookerly, Charles E., assignor of one-half to G. Davidson, Kansas City, Mo. Hydrocarbon-burner	454,332	June 16	1719	449	55	1493
Cookus, James H., assignor of one-half to W. H. Lang, Cameron, Mo. Churn	449,523	Mar. 31	3667	921	54	1848
Cooley, Charles H., assignor to Pratt & Whitney Company, Hartford, Conn. Grain-weigher	447,715	Mar. 3	701	175	54	1250
Cooley, Charles H., assignor to Pratt & Whitney Company, Hartford, Conn. Regulator for grain-weighers	447,721	Mar. 3	712	178	54	1252
Cooley, Charles H., and F. H. Richards, assignors to Pratt & Whitney Company, Hartford, Conn. Grain-weigher	447,762	Mar. 10	788	195 196 197	54	1274
Cooley, Frank, Cincinnati, Ohio. Electric-lamp reflector	449,403	Mar. 31	3478	875	54	1811
Cooley, Herbert M., Elmo, Kans. Sad-iron	445,927	Feb. 3	671	164	54	643
Cooley, Ralph B., Brooklyn, and S. M. Balzer, New York, N. Y.; said Balzer assignor to said Cooley. Automatic registering-bank	454,556	June 23	2069	535	55	1566
Coombs, David C., Lewisham, near Sydney, and W. Rowe, Marrickville, near Sydney, New South Wales. Telegraph block system of railway-traffic control	460,771	Oct. 6	374	92	57	73
Coombs, Abram L., Saugus, Mass. Stay-cutting attachment for sewing-machines	456,692	July 28	2228	589	56	450
Coombs, Edwin T., assignor of one-half to M. H. and M. B. Stebbins and H. Baker, Sabinsville, Pa. Combined harrow and roller	447,763	Mar. 10	793	197	54	1275
Coombs, Frederick W., Ilesborough, Me. Steam-boiler	464,556	Dec. 8	844	208	57	1305
Coombs, George B., Parkman, Me. Hitching device	461,998	Oct. 27	2365	586	57	476
Coomer, Fayette, Owasa, Iowa. Mechanical movement	463,100	Nov. 10	1390	360	57	830
Coomes, Martin F., and A. W. Hyde, Louisville, Ky. Armor-plating	457,525	Aug. 11	988	252	56	725
Coon, Adelbert B., et al. (See Chapel, Edward A., assignor.)						
Coon, Charles B., Cleveland, Ohio. Oven-bottom for stoves or ranges	466,070	Dec. 29	3322	848	57	1808
Coon, John D., Nathrop, Colo. Wire bale-tie	456,747	July 28	2152	570	56	437
Coone, John W., Thompson, Pa. Hydrocarbon-burner attachment	452,664	May 19	1970	494	55	963
Coons, James M. (See Bailey and Coons.)						
Coonse, George W., and O. E. Harris, Indianapolis, Ind. Vehicle	446,172	Feb. 10	1098	269	54	730
Coop, William L., Providence, R. I. Exercising apparatus	445,726	Feb. 3	345	90	54	581
Coop, William L., Providence, R. I. Exercising apparatus	457,602	Aug. 11	1113	284	56	749
Cooper, Ashley R., and T. E. Stucky, Mooresville, Ind. Boiler-tube cleaner	452,362	May 19	1494	370	55	874
Cooper, Charles. (See Hurley, Daniel, assignor.)						
Cooper, Charles W., New York, N. Y. Dust-collector	450,327	Apr. 14	1028	253	55	203
Cooper, Charles W., Brooklyn, N. Y. Removing lime from hides	461,010	Oct. 13	725	187	57	148
Cooper, Daniel M. (See Hagen and Cooper.)						
Cooper, David G., Pequabuck, Conn. Oven-thermometer	447,129	Feb. 24	2647	657	54	1053
Cooper, Dyer, Philadelphia, Pa. Milk testing and separating machine	446,248	Feb. 10	1239	303	54	757
Cooper, Edward F. (See Boring, Frank M., assignor.)						
Cooper, Elison M. (See Mills, William, assignor.)						
Cooper, George A., Alameda, Cal. Sash-holder	451,319	Apr. 28	2617	645	55	532
Cooper, George N., assignor of one-half to A. S. Dinsmore, Haverhill, Mass. Hat-holder	447,278	Feb. 24	2934	729	54	1108
Cooper, Henry, Brooklyn, N. Y. Coin-controlled striking-machine	454,256	June 16	1605	422	53	1471
Cooper, Henry, Brooklyn, N. Y. Machine for agitating and circulating air in rooms, &c.	455,660	July 7	586	152 153 154	56	114
Cooper, Indianna V., Wilmington, Del. Spool-holder	456,083	July 14	1236	324	56	243
Cooper, Jonathan H., Marshall, Tex. Balance-staff for watches	451,808	May 5	553	136	55	684
Cooper, Leslie A., assignor of one-half to Fiske, Coleman & Co., Boston, Mass. Lantern for regenerative gas-lamps	446,991	Feb. 24	2424	603	54	1011
Cooper, Richard J., Duluth, Minn. Trowel-handle	458,944	Sept. 1	615	151	56	1185
Cooper, Silas G., Minneapolis, Minn. Sieve	462,111	Oct. 27	2540	631	57	508
Cooper, William, Traverse City, Mich. Gate	445,343	Jan. 27	2179	564	54	451
Cooper, William S., Philadelphia, Pa. Water-closet bowl	444,243	Jan. 6	425	107	54	83
Cooper, William S., Philadelphia, Pa. Water-closet reservoir	445,424	Jan. 27	2296	595 596	54	474

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Cooper, William S., Philadelphia, Pa. Seat-attaching device for water-closet bowls	458,017	Aug. 18	1791	468	56	886
Cooper, William T., Nashville, Tenn. Dumping-car	449,524	Mar. 31	3668	{ 921 922 }	54	1848
Co-operative Foundry Company. (See Brayer, Nicholas, assignor.)						
Cooté, George R. (See Strong and Cooté.)						
Cope Brothers. (See Bush, Hiram T., assignor.)						
Cope Brothers. (See Cope, Henry P., assignor.)						
Cope, Edward, <i>et al.</i> (See Hoss, Henry W., assignor.)						
Cope, Henry P., assignor to Cope Brothers, Detroit, Mich. Float-valve	444,335	Jan. 6	554	143	54	110
Cope, Henry P., assignor to Cope Brothers, Detroit, Mich. Siphon for flushing tanks	450,557	Apr. 14	1369	338	55	270
Copeland, Daniel T. (See Crisp and Copeland, assignors.)						
Copeland, David W., assignor of one-half to H. D. Selleck, Syracuse, N. Y. Irrigating apparatus	444,564	Jan. 13	925	241	54	191
Copeland, David W., assignor to J. M. Andrews, Syracuse, N. Y. Axle-bearing	447,298	Mar. 3	21	6	54	1122
Copeland, George M., Brockton, Mass. Tide-motor	446,057	Feb. 10	898	218	54	694
Copeland, George W. (See Crisp and Copeland.)						
Copeland, George W. (See Nye and Copeland.)						
Copeland, George W., Malden, J. E. Crisp and E. F. Grandy, Somerville, Mass., assignors, by mesne assignments, to Copeland Rapid Laster Manufacturing Company, Portland, Me. Lasting-machine	465,073	Dec. 15	1676	{ 427 428 429 }	57	1473
Copeland, John W. (See Smith and Copeland.)						
Copeland Rapid Laster Manufacturing Company. (See Copeland, Crisp, and Grandy, assignors.)						
Copeland, Robert J., and A. E. Chatterson, Chicago, Ill. Order-sheet binder	448,411	Mar. 17	1877	472	54	1494
Coplen, John D., Denver, Colo. Ore concentrator and amalgamator	444,275	Jan. 6	467	119	54	92
Copleston, Lancelot. (See Graham, Ulysses G., assignor.)						
Copp, Edmund A. (See Barrett and Copp.)						
Copper, John. (See Brisbin and Copper.)						
Copper, Luther S., Cleveland, Ohio. Saddle for bicycles	448,774	Mar. 24	2462	615	54	1612
Corbin Cabinet Lock Company. (See Doremus, Willard D., assignor.)						
Corbin, P. & F. (See Glover, Charles, assignor.)						
Corbin, Royal, Plattsburg, N. Y. Adding-machine	445,240	Jan. 27	2026	522	54	420
Corcoran, Andrew J., Jersey City, N. J. Windmill	450,736	Apr. 21	1681	407	55	344
Corcoran, Luke H., <i>et al.</i> (See Reason, Walter M., assignor.)						
Corcoran, Luke H., <i>et al.</i> (See Wright, Herbert A., assignor.)						
Cordero, Ramón F., Rubio, Venezuela. Apparatus for defecating and evaporating saccharine juices	455,308	July 7	17	4	56	6
Cordero, Ramón F., Rubio, Venezuela. Apparatus for washing sugar	456,799	July 28	2405	634	56	483
Cordingly, Alfred, assignor of one-half to A. Goodstein, Denver, Colo. Chill-mold	461,412	Oct. 13	1362	{ 343 344 }	57	271
Cordrey, Charles K., Bellefontaine, Ohio. Corn-harvesting machine	457,760	Aug. 11	1362	352	56	800
Corey, Charles A., Watertown, Wis. Feed-regulator for roller-mills, &c	448,853	Mar. 24	2585	649	54	1636
Corey, William J., Georgetown, Del. Cough remedy	446,058	Feb. 10	899	.....	54	695
Corlin, John, Sparta, Mich. Life-preserver	462,892	Nov. 10	1077	279	57	768
Corliss, Emily A., administratrix. (See Corliss, George H.)						
Corliss, George H., deceased; E. A. Corliss, Providence, R. I., administratrix. Treating the cylinders of steam-engines	450,397	Apr. 14	1142	280	55	225
Corliss, George H., deceased; E. A. Corliss, Providence, R. I., administratrix. Machine for finishing the ends of cylinders of steam-engines	450,398	Apr. 14	1147	280	55	225
Corliss, George H., deceased; E. A. Corliss, Providence, R. I., administratrix. Machine for finishing side flanges of cylinders of steam-engines	450,399	Apr. 14	1150	281	55	226
Corliss, George H., deceased; E. A. Corliss, Providence, R. I., administratrix. Machine for finishing the ends of valve-boxes of steam-engine cylinders	450,400	Apr. 14	1152	281	55	227
Corliss, George H., deceased; E. A. Corliss, Providence, R. I., administratrix. Machine for boring the cylinders of steam-engines	450,401	Apr. 14	1154	{ 281 282 }	55	227
Corliss, George H., deceased; E. A. Corliss, Providence, R. I., administratrix. Machine for boring the valve-boxes of cylinders of steam-engines	450,402	Apr. 14	1156	282	55	227
Corliss, George H., deceased; E. A. Corliss, Providence, R. I., administratrix. Machine for fitting the exhaust-valve boxes of steam-engines	450,403	Apr. 14	1158	283	55	227
Corliss, William, Providence, R. I. Safe or vault	447,488	Mar. 3	371	91	54	1188
Corliss, William, Providence, R. I. Burglar-proof safe	452,449	May 19	1633	{ 407 408 }	55	900
Corman, Charles A., Natick, Mass. Temperature-regulator for incubators	464,957	Dec. 15	1467	369	57	1435
Cornelson, John H., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter	445,975	Feb. 10	751	184	54	660
Cornelson, John H., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter	451,800	May 5	554	137	55	684
Cornelson, John H., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter	452,690	May 19	2010	503	55	971
Cornelius, John, Oakland, Md., assignor of one-half to F. T. Wolsifer. Stump-extractor ..	452,215	May 12	1246	315	55	817
Cornelius, Wilbur F., Indianapolis, Ind. Seat for bicycles	453,039	May 26	2576	651	55	1089
Cornelius, Wilbur F., Indianapolis, Ind. Bicycle	455,864	July 14	916	240	56	185
Cornell, Elijah B., <i>et al.</i> (See Guiley, Augustus H. R., assignor.)						
Cornell, George A., Hartford, Conn. Ridge-pole splice for tents	465,921	Dec. 29	3058	784	57	1757
Cornell, George E., Saginaw, Mich. Gate	465,240	Dec. 15	1954	500	57	1527
Cornell, Harmon W., assignor of one-half to N. Morse, Owego, N. Y. Lifting-jack	464,454	Dec. 1	685	168	57	1265
Cornell, Herbert R. (See Scott and Cornell.)						
Cornell, Lorenzo D. (See Stinebring, George W., assignor.)						
Cornell, William N., Brownsville, N. Y. Damping apparatus	455,741	July 14	730	192	56	149
Cornely, Emil and R., Paris, France. Embroidering-machine	461,737	Oct. 20	1940	{ 481 482 }	57	385
Cornely, Emil and R., Paris, France. Embroidery-seam	461,738	Oct. 20	1943	482	57	385
Cornely, Robert. (See Cornely, Emil and R.)						
Corning, Frederick G. (See Parker, Henry F., assignor.)						
Corning, Frederick G., New York, N. Y. Sand-box	451,455	May 5	11	3	55	581
Corning, Frederick G., New York, N. Y. Sand-box	451,456	May 5	13	4	55	582
Corning, Frederick G., New York, N. Y. Sand-box	451,457	May 5	15	4	55	582
Corning, Frederick G., New York, N. Y. Sand distributor	451,458	May 5	17	4	55	582
Corning Glass Works. (See Haines, Robert D., assignor.)						
Cornish, Harry B., Hampton, Iowa. Folding poultry-crate	455,661	July 7	589	{ 154 155 }	56	114
Cornish, Harry B., Hampton, Iowa. Combined refrigerator and gas-generator	463,489	Nov. 17	2013	527	57	958
Cornman, Theodore. (See Miller, Martin B., assignor.)						
Cornwall, John B., Mohine, Ill. Split pulley	451,496	Apr. 28	2778	686	55	562

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Cornwall, John B., Moline, Ill. Adjustable journal-bearing.....	457,302	Aug. 4	599	157	56	644
Cornwall, John B., assignor to Barnard & Leas Manufacturing Company, Moline, Ill. Split pulley.....	449,608	Mar. 31	3796	953	54	1871
Cornwell, Edward C., Ypsilanti, Mich. Reel.....	444,818	Jan. 20	1309	341	54	273
Corp, Willis B., assignor of one-fourth to B. M. Tappan, Syracuse, N. Y. Door-hanger.....	450,003	Apr. 7	530	132	55	103
Correll, Friedrich, Frankfort-on-the-Main, Germany. Means for collecting and removing floating debris.....	452,595	May 19	1862	469	55	942
Corron, César, Paris, France. Dyeing apparatus.....	466,223	Dec. 29	3556	910	57	1853
Corry, William, assignor to Halls Safe and Lock Co., Cincinnati, Ohio. Mechanism for closing and opening safe-doors.....	463,698	Nov. 24	2374	621	57	1034
Corscaden, Thomas, New Britain, Conn. Lock-hinge.....	451,969	May 12	812	207	55	740
Corscaden, Thomas, New Britain, Conn. Caster.....	452,834	May 26	2238	562	55	1024
Corscaden, Thomas, New Britain, Conn. Lock-hinge.....	460,678	Oct. 6	229	58	57	47
Corscaden, Thomas, New Britain, Conn. Manufacture of hinges.....	462,238	Nov. 3	26	6	57	556
Corser, Edson J. (See Kirkpatrick and Corser.)						
Corser, Lorenzo D., Ebensburg, Pa. Leveling attachment for harrows.....	448,502	Mar. 17	2015	504	54	1519
Cort, Warren L., Flatbush, N. Y. Gas-stove.....	464,295	Dec. 1	467	111 112	57	1223
Corthell, Fred H. (See Hunter and Corthell.)						
Corthell, Fred H., Elgin, Ill. Device for suspending lamps.....	450,096	Apr. 7	658	166	55	129
Corwin, David F. (See Haines, Samuel H., assignor.)						
Corwin, William S., Newark, N. J. Telephone-receiver.....	451,634	May 5	293	71	55	634
Cory, Abraham M., New Providence, N. J. Astronomical clock.....	463,101	Nov. 10	1391	360 361 362	57	831
Cory, D. R., et al. (See Oviatt, Solomon E., assignor.)						
Coryell, Joseph G., Fishkill-on-the-Hudson, N. Y. Heater.....	463,827	Nov. 24	2554	665 666	57	1069
Cosby, Anderson B., Richmond, Va. Hose-washing machine.....	447,634	Mar. 3	588	145	54	1228
Cosgrove, Ellen, administratrix. (See Cosgrove, William F.)						
Cosgrove, William F., deceased, Jersey City, N. J.; E. Cosgrove administratrix. Fuel feeder and separator.....	445,390	Jan. 27	2238	581	54	463
Cosman, Nathan, Fremont, Wash. Door-securer.....	452,903	May 26	2355	595	55	1045
Cosper, William H., Chicago, Ill. Weather-stripping.....	445,544	Feb. 3	24	6	54	516
Coss, James C., Mansfield, Ohio. Bow-socket for buggy-tops.....	445,046	Jan. 20	1725	444	54	353
Cossin, Francis, assignor to L. Schlesinger, New York, N. Y. Mechanical toy.....	454,927	June 30	2718	693	55	1693
Cossmann & Banker. (See Schuster and Link, assignors.)						
Costa, Pedro, San Francisco, Cal. Fishing-boat attachment.....	456,720	July 28	2272	602	56	459
Coste, Amélie D'E., Chicago, Ill. Pocket-lamp.....	450,949	Apr. 21	2010	495	55	406
Costello, Alfred M., Great Barrington, Mass. Combined envelope and display stand.....	457,509	Aug. 11	970	247	56	721
Costello, George E. (See Browne, William L., assignor.)						
Costigan, Joseph P., Minneapolis, Minn., and T. M. Vallean, Brooklyn, N. Y. Air-space covering for steam-pipes, &c.....	447,243	Feb. 24	2876	714	54	1096
Costigan, Joseph P., Minneapolis, Minn., assignor of one-half to T. M. Vallean, Brooklyn, N. Y. Air-space covering for steam-pipes, boilers, &c.....	459,035	Sept. 8	765	186	56	1222
Cote, David, Springfield, Mass. Sash-fastener.....	456,759	July 28	2354	620	56	473
Côté, Louis, St. Hyacinthe, Canada. Heel-stiffener machine.....	447,944	Mar. 10	1103	277	54	1334
Cotner, David R., Bardwell, Ky. Cup-holder and the like.....	460,465	Sept. 29	3006	753	56	1673
Cottancin, Paul, Paris, France. Work of re-enforced plastic material.....	459,944	Sept. 22	2218	558	56	1516
Cotte, Pierre. (See Nief and Cotte.)						
Cotten, Christopher C., Albion, Mich. Spring-gun.....	457,812	Aug. 18	1445	376	56	822
Cotter, John F., Kansas City, Mo. Ceiling-plate for steam-risers.....	458,443	Aug. 25	2481	604	56	1024
Cotter, John N., et al. (See Mitchell, Oliver F., assignor.)						
Cottier, William T., Los Angeles, Cal. Wardrobe.....	462,938	Nov. 10	1155	299	57	783
Cottle, Luther M., assignor to Gormully & Jeffery Manufacturing Company, Chicago, Ill. Velocipede.....	463,329	Nov. 17	1764	462	57	908
Cotton, Charles W., Indianapolis, Ind. Setting tires.....	453,756	June 9	908	236	55	1327
Cotton, Francis, et al. (See Preston, James B., assignor.)						
Cotton, Henry H., executor. (See Ward, William H.)						
Cottrell, Calvert B., Westerly, R. I. Printing-machine.....	448,775	Mar. 24	2463	616 617	54	1613
Cottrell, Calvert B., Westerly, R. I. Means for transmitting rotary motion at different speeds.....	448,776	Mar. 24	2467	617	54	1613
Cottrell, Calvert B., Westerly, R. I. Sheet-delivery apparatus for printing-machines.....	451,168	Apr. 28	2361	587	55	484
Cottrell, Calvert B., Westerly, R. I. Printing-machine.....	453,757	June 9	909	236 237	55	1327
Cottrell, Calvert B., Westerly, R. I. Printing-machine.....	453,758	June 9	912	237 238	55	1328
Cottrell, Calvert B., Westerly, R. I. Inking apparatus for printing-machines.....	455,897	July 14	965	252	56	194
Cottrell, Calvert B., Westerly, R. I. Sheet-delivery apparatus for printing-presses.....	456,669	July 28	2188	579 580	56	443
Cottrell, Calvert B., Westerly, R. I. Feeding apparatus for printing-machines.....	466,030	Dec. 29	3262	832	57	1795
Cottrell, George R., New York, N. Y., assignor of one-half to W. W. Dudley and F. L. Browne, Washington, D. C. Apparatus for mixing gas and air.....	447,299	Mar. 3	23	7	54	1123
Cottrell, Harvey T. (See Thomson and Cottrell.)						
Cottrell, Herbert, assignor to L. A. Sayre, Newark, N. J. Fruit-paring machine.....	453,759	June 9	917	238	55	1329
Cottrell, John O., Riverside, Cal. Wrench.....	461,771	Oct. 20	2001	494	57	397
Couch Addresser Company. (See Couch, George S., assignor.)						
Couch, George H., Croyden, England. Window.....	458,222	Aug. 25	2108	547	56	955
Couch, George S., Minneapolis, Minn., assignor to Couch Addresser Company, of Minnesota. Addressing-machine.....	455,814	July 14	854	224	56	172
Couch, Joel, Clayton, N. Y. Center-board for vessels.....	448,503	Mar. 17	2017	504	54	1520
Couch, Joel, Clayton, N. Y. Extension-table.....	465,053	Dec. 15	1651	420 421	57	1468
Couch, Rue L., assignor to Missouri Iron Roofing and Corrugating Company, St. Louis, Mo. Metallic roofing.....	462,374	Nov. 3	253	62	57	599
Couch, Rue L., and R. Otterson, St. Louis, Mo. Car-roof.....	462,375	Nov. 3	253	62	57	599
Couche, Jules, assignor to R. & H. Simon, Union Hill, N. J. Loom.....	453,625	June 9	711	183 184	55	1290
Coudert, Michel A., Vichy, assignor to Société Anonyme Française des Bascules Automatiques, Paris, France. Sheet-folding machine.....	451,176	Apr. 28	2371	590	55	486
Coughlin, William, New York, N. Y. Invalid-hedstead.....	463,944	Nov. 24	2751	714	57	1105
Coulomb, Basil F., Clifton, Ill. Walking and riding cultivator.....	462,533	Nov. 3	492	121	57	645
Coulson David E., Galesburg, Ill. Dental plugger.....	456,477	July 21	1869	494	56	373

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Coultas, James W., Havana, Ill. Circular-pressure machine.....	453,740	June 9	883	{ 229 230 }	55	1323
Coulter, Charles L., Lindsay, Ontario, Canada. Inhaler.....	453,626	June 9	712	184	55	1291
Coulter, Wesley, Pittsburg, Pa. Sash-fastener.....	451,388	Apr. 28	2710	673	55	549
Coulter, William W., Eaton, Ill. Machine for sharpening saws.....	452,691	May 19	2011	{ 503 504 }	55	971
Comp, Albert A., Cleveland, Ohio. Truck.....	462,112	Oct. 27	2541	631	57	509
Comp, John, Cleveland, Ohio. Car-coupling.....	464,958	Dec. 15	1469	370	57	1436
Coupe, Joseph F., Utica, N. Y. Picture-hanger.....	454,111	June 16	1394	365	55	1429
Coupe, William, Attleborough, Mass., assignor of one-half to M. McGowan, Pawtucket, R. I. Stretching-machine.....	464,794	Dec. 8	1221	304	57	1377
Cooper, Edgar J., et al. (See Mansing, George D., assignor.)						
Coursen, George H., Baltimore county, Md. Rotary razor-strop.....	458,521	Aug. 25	2610	635	56	1049
Coursen, Robert R., Newark, N. J. Plaster slab.....	447,025	Feb. 24	2485	618	54	1021
Courser, Thomas, Lake City, Fla. Car-coupling.....	462,113	Oct. 27	2542	632	57	509
Courtmanche, Moise, Montreal, Canada. Pipe-cutter.....	463,102	Nov. 10	1403	363	57	833
Courtenay, William. (See Daggett, John S., assignor.)						
Courtman, Reuben S. (See Cayley and Courtman.)						
Courtney, John J., assignor to Minneapolis Harvester Works, Minneapolis, Minn. Mow- ing-machine.....	445,391	Jan. 27	2241	{ 581 582 }	54	463
Courtright, Edgar, assignor of three-fourths to C. G. Davies and F. C. Langley, Detroit, Mich. Governor.....	456,981	Aug. 4	89	22	56	550
Courtright, Edgar, assignor of three-fourths to C. G. Davies and F. C. Langley, Detroit, Mich. Hand-car.....	456,982	Aug. 4	90	22	56	550
Courtright, Edgar, assignor of three-fourths to J. B. and E. E. Brooks, M. F. Stellwagen, C. Kynoch, J. Connors, and T. I. Everett, St. Ignace, Mich. Motor and pump.....	457,303	Aug. 4	600	{ 157 158 }	56	644
Courtright, Edgar, assignor of three-fourths to J. B. and E. E. Brooks, M. F. Stellwagen, C. Kynoch, J. Connors, and T. I. Everett, St. Ignace, Mich. Steam-engine connection.....	460,319	Sept. 29	2794	696	56	1633
Cousens, J. Hiram. (See York, Horace M., assignor.)						
Covell, Allen T. (See Limbaugh, Francis M., assignor.)						
Covell, Edward T., New Bedford, Mass. Fastening for horseshoes.....	459,394	Sept. 15	1341	336	56	1343
Covert, Enoch, Farmer Village, N. Y. Lifting-jack.....	457,183	Aug. 4	385	99	56	606
Covert, J. W., et al. (See Walter, Charles F., assignor.)						
Covert, Jake, et al. (See Schofield, Andrew B., assignor.)						
Covert, James C., West Troy, N. Y. Trousers-stretcher.....	454,855	June 30	2563	659	55	1664
Covert, James C., West Troy, N. Y. Hame-fastener.....	458,415	Aug. 25	2438	594	56	1016
Coville, Orson, et al. (See June, Marcus M., assignor.)						
Cowan, Ella F., Iola, Kans. Device for teaching combinations of numbers.....	462,376	Nov. 3	255	62	57	599
Cowan, Henry. (See Guyott, Leziam F., assignor.)						
Cowan, Thomas. (See Evans and Cowan.)						
Coward, William M., Sydney, New South Wales. Nursing-bottle.....	460,360	Sept. 29	2861	713	56	1646
Cowell, Edward R. E., assignor of one-half to H. P. Glover, Ypsilanti, Mich. Time-chart.....	445,392	Jan. 27	2244	583	54	464
Cowell, Edward R. E., assignor of one-half to H. P. Glover, Ypsilanti, Mich. Time-globe.....	445,393	Jan. 27	2245	583	54	464
Cowell, Newell P., Cleveland, Ohio. Vestibule-car.....	457,472	Aug. 11	909	233	56	708
Cowell, Newell P., Cleveland, Ohio. Car-buffer.....	457,473	Aug. 11	911	233	56	709
Cowgill, Christian D., Terre Haute, Ind. Bevel attachment for folding rules.....	451,810	May 5	555	137	55	684
Cowie, Isaac A., Morden, Canada. Seeding-machine.....	461,011	Oct. 13	726	187	57	148
Cowles, Edward P., New Decatur, Ala. Compound steam-engine.....	465,241	Dec. 15	1955	{ 500 501 502 }	57	1527
Cowles, Edward P., New Decatur, Ala. Balanced valve.....	465,242	Dec. 15	1961	{ 501 502 }	57	1528
Cowles Engineering Company. (See Cowles, William, assignor.)						
Cowles, Ezra R., Westfield, Mass. Whip.....	451,028	Apr. 28	2156	532	55	442
Cowles, Francis W., Nebraska City, Nebr. Furniture.....	451,389	Apr. 28	2711	{ 673 674 }	55	550
Cowles, George C., assignor of one-half to E. Germain, Saginaw, Mich. Pulley.....	445,047	Jan. 20	1727	444	54	353
Cowles, Lyman L., assignor to M. S. Cowles, Valley, Nebr., and C. V. Hollister, Salt Lake City, Utah Ter. Potato-planter.....	444,521	Jan. 13	851	222	54	178
Cowles, Mary S., et al. (See Cowles, Lyman L., assignor.)						
Cowles, Royal. (See Gale, Cowles, and Davies.)						
Cowles, William, Brooklyn, N. Y., assignor to Cowles Engineering Company, Jersey City, N. J. Water-tube boiler.....	465,163	Dec. 15	1842	{ 467 468 }	57	1504
Cowles, William, Brooklyn, N. Y., assignor to Cowles Engineering Company, Jersey City, N. J. Water-tube boiler.....	465,164	Dec. 15	1847	{ 468 469 }	57	1504
Cowley, Edward M. (See Laidlaw and Cowley.)						
Cowley, James T., Lowell, Mass. Coin-holder.....	455,309	July 7	19	5	56	6
Cowley, James T., Lowell, assignor to O. A. Ames, Easton, Mass. Fare-register.....	455,276	June 30	3317	{ 839 840 841 842 }	55	1809
Cowley, James T., Lowell, Mass., assignor to Lamson Consolidated Store Service Com- pany, of New Jersey. Store-service apparatus.....	452,473	May 19	1682	423	55	907
Cowley, James T., Lowell, assignor to Lamson Consolidated Store Service Company, Bos- ton, Mass. Store-service apparatus.....	465,962	Dec. 29	3124	801	57	1769
Cowley, James T., Lowell, assignor to Lamson Consolidated Store Service Company, Bos- ton, Mass. Store-service apparatus.....	465,963	Dec. 29	3127	802	57	1769
Cowsill, Nathan, Washington, D. C. Fire-proof tile.....	462,534	Nov. 3	495	121	57	646
Cox, Alisa A., Mount Olive, Ill. Clothes line and suspension device.....	463,441	Nov. 17	1946	507	57	944
Cox, Benjamin G., Tulip, Tex. Hay-press.....	457,705	Aug. 11	1262	326	56	778
Cox, Charles A., and C. N. Brockington, assignors of one-fifth to J. F. Cox, Louisville, Ky. Refrigerating-valve and regulator.....	450,575	Apr. 14	1389	343	55	274
Cox, Edward T., New York, N. Y. Apparatus for making coke.....	445,394	Jan. 27	2246	583	54	464
Cox, George M., Mansfield, Ohio. Two-wheeled vehicle.....	451,029	Apr. 28	2157	532	55	442
Cox, Harris G., Alvarado, Cal. Harness.....	459,887	Sept. 22	2137	537	56	1501
Cox, Harry B., Hartford, Conn. Casting apparatus.....	452,343	May 12	1459	361	55	857
Cox, J. Frank. (See Cox and Brockington, assignors.)						
Cox, J. Otis, et al. (See Campbell, John S., assignor.)						
Cox, Jacob R., Clayton, Ind. Corn-planter.....	464,010	Dec. 1	13	4	57	1139
Cox, Jennie H., Winfield, Kans. Lemon-grater.....	462,626	Nov. 3	637	161	57	674
Cox, Joseph J., et al. (See Crouch, Sehorn J., assignor.)						
Cox, Joseph L., assignor to Duplex Printing Press Company, Battle Creek, Mich. Paper splitting and folding machine.....	451,459	May 5	19	5	55	582
Cox, Joseph L., assignor to Duplex Printing Press Company, Battle Creek, Mich. Web- roller for printing-presses.....	457,255	Aug. 4	515	135	56	629

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Cox, Joseph L., assignor to Duplex Printing Press Company, Battle Creek, Mich. Print- ing-press	459,813	Sept. 22	2012	505	56	1476
Cox, Joseph L., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary ink-fountain for printing-presses	463,103	Nov. 10	1404	363	57	833
Cox, Joseph L., assignor to Duplex Printing Press Company, Battle Creek, Mich. Print- ing-press	464,857	Dec. 8	1306	327	57	1394
Cox, Joseph L., assignor to Duplex Printing Press Company, Battle Creek, Mich. Delivery mechanism for printing-presses	464,923	Dec. 8	1395	352	57	1411
Cox, Joseph L., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary web-severing machine	465,427	Dec. 15	2264	581	57	1585
Cox, Joseph L., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary web-severing machine	465,428	Dec. 15	2266	581	57	1585
Cox, Robert M., Philadelphia, and T. B. Keim, Reading, Pa.; said Keim assignor to said Cox. Chair	461,238	Oct. 13	1081	273	57	215
Cox, Samuel B. (See Anderson and Cox.)						
Cox Stove Company, Abram. (See Mott, Abram C., assignor.)						
Cox, William, Toronto, Canada. Electric call-bell and indicator	450,558	Apr. 14	1369	338	55	270
Cox, William, assignor to Kenfil & Esser Company, New York, N. Y. Engineer's slide- rule	460,930	Oct. 6	609	155	57	118
Cox, William H., Virden, Ill. Sliding gate	445,163	Jan. 27	1911	493	54	397
Cox, William H., Virden, Ill. Lifting-jack	460,116	Sept. 29	2477	619	56	1572
Cox, William H., Virden, Ill. Nut-wrench	466,071	Dec. 29	3323	848	57	1808
Coxe, Eckley B. (See Richards, Francis H., assignor.)						
Coxe, Eckley B., Drifton, Pa. Slate-picking mechanism	450,482	Apr. 14	1270	310	55	248
Coy, Commodore P. (See Brack and Coy.)						
Coy, George E., assignor of five-sixths to J. Coy, S. Piper, and I. N. Charlock, Syracuse, N. Y. Compound to restrain the setting of plaster and making the same	465,614	Dec. 22	2582		57	1654
Coy, Henry E., Toledo, Ohio. Screw-cutting machine	448,638	Mar. 24	2243	563	54	1570
Coy, John, et al. (See Coy, George E., assignor.)						
Coyan, Milton S., assignor of one-half to F. Miller, Corning, Ohio. Self-dumping mine-cage	461,817	Oct. 27	2081	514	57	420
Coyle, Daniel, Philadelphia, Pa. Envelope moistener and closer	447,809	Mar. 10	881	220	54	1292
Coyne, John, Pittsburg, Pa. Manufacture of splice-bars	451,635	May 5	294	72	55	634
Coyne, John W. (See Shannon and Coyne.)						
Crabbs, William, Percy, Iowa. Portable crib for feeding cattle and hogs	463,857	Nov. 24	2609	679	57	1079
Crabbs, Cyrus. (See Tweedy, Thomas A., assignor.)						
Crabbs, Cyrus, Toronto, Canada. Fence	447,539	Mar. 3	450	110	54	1202
Crabbs, Orion A., and S. Emens, Dayton, Ohio. Tug	447,050	Feb. 24	2532	629	54	1030
Crabtree, Leonard T., Oconto, assignor of one-half to G. M. Knapp and D. E. Wescott, Shawano, Wis. Train-order annunciator	448,125	Mar. 10	1379	353	54	1389
Cracknell, Edward W., Sydney, New South Wales. Closet and privy and pan therefor	460,361	Sept. 29	2862	714	56	1646
Cracknell, Edward W., Sydney, New South Wales. Furnace for the incineration and de- struction of house garbage, town refuse, &c	464,171	Dec. 1	248	61	57	1182
Craday, Peter, Burlington, Vt. Lock	450,220	Apr. 14	844	212	55	170
Crafts, John L., Somerville, Mass. Extension fire-ladder	451,708	May 5	402	98	55	655
Cragg, Joseph, assignor to S. W. Cragg, Baltimore, Md. Apparatus for extracting gold or silver from ores	449,813	Apr. 7	257	65, 66	55	51
Cragg, Joseph, assignor to S. W. Cragg, Baltimore, Md. Extracting gold or silver from ores	449,815	Apr. 7	261	67	55	52
Cragg, Samuel W. (See Cragg, Joseph, assignor.)						
Cragg, Samuel W., Baltimore, Md. Lixiviation process of and apparatus for the extraction of gold or silver	449,814	Apr. 7	259	66	55	52
Craig, Cassius E. (See McCormack and Craig.)						
Craig, Dudley I., Silver Ring, Ariz. Ter. Adding-machine	454,715	June 23	2336	600	55	1616
Craig, Isaac S., Somerville, assignor to Standard Rivet Company, Boston, Mass. Stop-mo- tion for machines	448,578	Mar. 17	2126	533	54	1541
Craig, John B., St. Louis, Mo. Shoe-tie fastener	463,573	Nov. 17	2154	569	57	985
Craig, John B., and T. W. Purcell, St. Louis, Mo. Device for operating doors to elevator- wells	461,441	Oct. 13	1361	343	57	271
Craig, Joseph, Woodland, Cal. Cultivator	464,011	Dec. 1	14	4, 5	57	1139
Craig, Julia W., San Francisco, Cal. Chair	446,249	Feb. 10	1240	303	54	758
Craig, Robert F., Paisley, Scotland, assignor to R. Wallwork and A. C. Wells, Manches- ter, England. Starter for vapor-burners	457,934	Aug. 18	1669	435 436	56	862
Craig, William H. (See Hubbard and Potter, assignors.)						
Craig, William M., Santa Ynez, Cal. Windmill	446,630	Feb. 17	1829	452	54	887
Craig, William R., assignor of one-half to H. R. Stoughton, Shelby, Ala. Flue-hole cutter	448,126	Mar. 10	1385	354	54	1390
Craig, William R., assignor of one-half to H. R. Stoughton, Shelby, Ala. Drill-chuck	459,358	Sept. 8	1273	314	56	1321
Craige, Edward H., Brooklyn, N. Y. Binder for sewing machines	446,843	Feb. 17	2164	538	54	955
Craighead & Kintz Company. (See Kintz, Joseph, assignor.)						
Craighead & Kintz Company. (See Steffens, Georg. W., assignor.)						
Crain, Charles S., trustee. (See Rowe, George E., assignor.)						
Craine, Edwin W., Missouri Valley, Iowa. Pneumatic train signaling apparatus	462,239	Nov. 3	27	6	57	557
Craine, Edwin W., Missouri Valley, Iowa. Pipe-coupling	465,087	Dec. 15	1712	436	57	1480
Crakes, Thomas, Mishawaka, Ind. Cultivating fruit-trees	446,662	Feb. 17	1881	467	54	897
Cram, Danvers, Liberty, Me. Wagon or carriage wrench	445,258	Jan. 27	2064	532	54	426
Cram, George H. (See Williams and Cram.)						
Cram, William E., Cambridge, assignor of one-half to E. S. Beckford, Quincy, Mass. Elec- trical annunciator	447,558	Mar. 3	474	116	54	1206
Cramer, Henry, et al. (See Kerstein, Max, assignor.)						
Cramer, Philipp, Montreal, Canada. Valve for steam-winch	463,140	Nov. 17	1466	381	57	853
Crandall, Fred W., Elkland, Pa. Toy musical instrument	452,835	May 26	2239	562	55	1024
Crane & Breed Manufacturing Company. (See Ober, Philip G., assignor.)						
Crane & Breed Manufacturing Company. (See Ober and Honston, assignors.)						
Crane Company. (See Hayden, James T., assignor.)						
Crane Company. (See Wilson, Henry F., assignor.)						
Crane Elevator Company. (See Heermans, Thaddeus W., assignor.)						
Crane, Fannie K., and H. Bradshaw, Topeka, Kans. Apparatus for feeding paper	458,945	Sept. 1	616	152	56	1185
Crane, Joseph J., Summertown, Tenn. Metal fence-post	454,611	June 23	2182	563	55	1585
Crane, Moses G. (See Cole, Frederick W., assignor.)						
Crane, Moses G., Newton, Mass. Non-interference signal-box	445,545	Feb. 3	25	7	54	516
Crane, Moses G., Newton, Mass. Electro magnetic device	449,206	Mar. 31	3126	789	54	1748
Crane, Moses G., Newton, Mass. Bill-sticker	452,166	May 12	1175	297	55	803
Crane, Moses G., and F. W. Cole, Newton, Mass. Visual indicator for fire-alarm and other purposes	452,165	May 12	1171	296 297	55	802
Crane, Richard T., Chicago, Ill. Discharge-regulator for hydraulic elevators	445,748	Feb. 3	383	98	54	589

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Crane, Richard T., Chicago, Ill. Steam-whistle.....	448,127	Mar. 10	1386	354	54	1390
Crane, Richard T., Chicago, Ill. Hydraulic elevator.....	458,223	Aug. 25	2110	548	56	955
Crane, Richard T., Chicago, Ill. Device for detecting intestinal perforations.....	464,692	Dec. 8	1060	264	57	1346
Crane, Richard T., Chicago, Ill. Elevator.....	464,740	Dec. 8	1139	282	57	1360
Crane, Thomas S., East Orange, N. J., assignor to E. Bradley, New York, N. Y. Log-crosscutting machine.....	447,462	Mar. 3	315	79	54	1177
Crane, Walter E. (See Johnson and Crane.)						
Cranford, Henry L., <i>et al.</i> (See Truesdell, George, assignor.)						
Crank, Nathaniel, Hill City, Kans. Apparatus for vapor-baths.....	445,464	Jan. 27	2347	610	54	484
Crank, Nathaniel, Hill City, Kans. Vapor-bathing apparatus.....	463,490	Nov. 17	2014	527 528	57	958
Crannell, Amer, assignor of one-half to J. V. Crannell, Mound City, Mo. Draft-equalizer.....	464,012	Dec. 1	16	5	57	1139
Crannell, James V. (See Crannell, Amer, assignor.)						
Cranska, Floyd. (See Shepardon, Albert F., assignor.)						
Cranston, Charles, Brooklyn, N. Y. Paper-cutting machine.....	461,950	Oct. 27	2296	569	57	463
Cranston, James F., and J. H. Wesson, Springfield, Mass. Loom.....	445,395	Jan. 27	2247	583 584	54	464
Cranston, John H., Norwich, Conn. Back-up motion for printing-presses.....	448,938	Mar. 24	2709	683	54	1660
Crary, Thomas F., Middleport, Ohio. Sifting device.....	453,235	June 2	84	22	55	1164
Crary, Thomas F., Middleport, Ohio. Cut-off.....	460,953	Oct. 13	643	166	57	133
Craven, Thomas C., Newark, N. J. Compressor for air and gases.....	451,460	May 5	21	6	55	553
Crawford, Amos H., Liverpool, N. Y. Lantern.....	456,721	July 28	2273	602	56	460
Crawford, Clinton L., Baltimore, Md. Bottle-stopper.....	450,766	Apr. 21	1737	418	55	353
Crawford, David C., Big Rapids, Mich. Adjustable vehicle-axle.....	454,397	June 16	1820	476	55	1510
Crawford, Edwin G., St. Louis, Mo. Stop-box for water or gas pipes.....	454,398	June 16	1821	476	55	1511
Crawford, Frank, assignor of one-half to A. March, New Brunswick, N. J. Stop mechanism for knitting-machines.....	445,465	Jan. 27	2348	610	54	484
Crawford, Harvey F., and R. C. Lambert, Brockton, Mass.; said Lambert assignor of one-third to said Crawford. Mechanism for propelling vehicles.....	444,130	Jan. 6	252	61	54	52
Crawford, Harvey F., and R. C. Lambert, Brockton, Mass.; said Lambert assignor of one-third to said Crawford. Velocipede.....	444,131	Jan. 6	254	61	54	52
Crawford, James, and J. H. Young, Cambridge, Mass. Pipe-supporting device.....	460,631	Oct. 6	159	39	57	34
Crawford, James G., Boston, Mass. Ironing-machine.....	447,559	Mar. 3	476	117	54	1207
Crawford, Middleton, Liverpool, England. Grinding and amalgamating mill. (Reissue).....	11,180	July 28	2632	689 690 165	56	524
Crawford, Miley P., Logan, Ohio. Block-signal.....	445,923	Feb. 3	673	164 165	54	643
Crawford, Richard T., Winstonsborough, S. C. Bucket.....	450,720	Apr. 21	1664	401	55	340
Crawford, Samuel E., Ripon, Wis. Hand nailing-machine.....	447,398	Mar. 3	204	53, 54	54	1156
Crawford, William H., Oshkosh, Wis. Valve.....	446,059	Feb. 10	900	218	54	695
Crawley, Edwin, Sr., Newport, Ky. Machine for handling sheets of unbound books.....	453,312	June 2	204	55	55	1186
Crawshaw, Charles R. (See Moats and Crawshaw.)						
Crea, Hugh. (See Zimmerman and Beall, assignors.)						
Creamer, Henry, New York, N. Y. Steam-trap.....	457,983	Aug. 18	1740	457 458	56	877
Creamer, William G., Brooklyn, N. Y. Heating and ventilating railway-cars.....	463,270	Nov. 17	1675	437	57	893
Crean, Daniel F., and W. F. Stone, Woodbury, N. J. Caster-socket.....	454,257	June 16	1608	422	55	1471
Cree, Alexander D., Waynesburg, Pa. Barber's chair.....	461,494	Oct. 20	1553	381	57	313
Creedy, Charles E., Washington, D. C., assignor to Pneumatic Gun Carriage and Power Company, of West Virginia. Hermetic metal vessel.....	457,849	Aug. 18	1509	393	56	834
Creedy, Edward W. (See Andrews and Norton, assignors.)						
Crees, George W. B., Wingfield, near Trowbridge, England. Machine for washing plates, dishes, &c.....	459,927	Sept. 22	2200	553	56	1512
Crees, Thomas W., Birmingham, England, assignor to Gorham Manufacturing Company, Providence, R. I. Press for shaping and ornamenting hollow metal articles.....	465,836	Dec. 29	2918	747	57	1730
Cregier, De Witt C. (See Cregier, Nathaniel B., assignor.)						
Cregier, De Witt C., Sr. (See Cregier, Nathaniel B., assignor.)						
Cregier, Nathaniel B., assignor of one-half to D. C. Cregier, Chicago, Ill. Railway-signal.....	444,819	Jan. 20	1310	341	54	273
Cregier, Nathaniel B., assignor of one-half to D. C. Cregier, Sr., Chicago, Ill. Police-signal system.....	462,508	Nov. 10	934	243 244	57	741
Creider, Simon S. (See McCann and Creider.)						
Creighton, John, and C. H. Drury, Hartford, Ohio. Attachment for plows.....	453,108	May 26	2698	680	55	1113
Creighton, Theodore, Tiffin, Ohio. Insulator.....	450,708	Apr. 21	1650	396	55	338
Creque, Allen P., New York, N. Y. Boiler-pedestal.....	444,692	Jan. 13	1111	287	54	227
Creque, Allen P., New York, N. Y. Stand or support for boilers.....	444,693	Jan. 13	1112	287	54	228
Crescy, Richard L., <i>et al.</i> (See Mitchell, Augustus P., assignor.)						
Cress, Leonidas H., <i>et al.</i> (See Christy, Russ J., assignor.)						
Cresson, Eustache A., Paris, France. Combined perpetual calendar and watch trinket or charm.....	452,450	May 19	1634	408	55	900
Cresson, George W. (See Pessano, Antonio C., assignor.)						
Creswell, James W., Flat Rock, Ill. Car-coupling.....	453,375	June 2	301	79	55	1204
Crews, Dayton H., assignor of one-half to G. G. Henderson, Ladonia, Tex. Extension-ladder.....	462,240	Nov. 3	30	7	57	357
Crews, Gideon, Pacific, Mo. Hay-tedder.....	444,423	Jan. 13	696	181	54	145
Crews, James M., Arlington, Tenn. Buton.....	455,908	July 14	984	256	56	197
Crickler, Charles D. (See Kincaid and Crickler.)						
Crider, Henry M., Knightstown, Ind. Cone-tip fastener.....	448,474	Mar. 17	1978	496	54	1512
Cridge, Matthew, Ross, Pa. Gage for carpentry.....	447,604	Mar. 3	544	135	54	1219
Criggal, John, Newark, N. J. Socket for incandescent electric lamps.....	457,109	Aug. 4	273	71	56	585
Crighton, William, assignor to Kerr-Murray Manufacturing Company, Fort Wayne, Ind. Center-seal and by-pass valve.....	448,504	Mar. 17	2019	505	54	1520
Crighton, William, assignor to Kerr-Murray Manufacturing Company, Fort Wayne, Ind. Center-seal and by-pass valve.....	449,578	Mar. 31	3750	942	54	1862
Cripps, David, near Iuka, Ill. Fruit-tree protector.....	445,048	Jan. 20	1728	445	54	353
Crisp, James L., assignor of two-thirds to F. J. Hall and J. W. Crisp, Bloomfield, N. J. Belt-rolling machine.....	452,748	May 19	2110	531	55	990
Crisp, James W., <i>et al.</i> (See Crisp, James L., assignor.)						
Crisp, John A., Jefferson, Ohio. Therapeutic electric battery.....	463,945	Nov. 24	2753	714	57	1106
Crisp, John A., and G. F. Webb, Jefferson, Ohio. Body-battery and attachments for the same.....	443,128	Mar. 10	1387	354	54	1391
Crisp, John H., Trenton, N. J. Hose-clamp.....	464,338	Dec. 1	521	127	57	1233
Crisp, Joseph E. (See Copeland, Crisp, and Grandy.)						
Crisp, Joseph E., Somerville, and G. W. Copeland, Malden, Mass. Tack-driving machine.....	455,174	June 30	3161	802	55	1779
Crisp, Joseph E., Somerville, and G. W. Copeland, assignors, by mesne assignments, to D. T. Copeland, Malden, Mass. Tack-driving machine.....	446,631	Feb. 17	1830	453	54	887

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Crispell, Isaiah D., West Stockbridge, Mass. Head-rest for chairs.....	444,989	Jan. 20	1637	420	54	335
Crissey, Henry K., Hubbard, Iowa. Broom-sewing machine	457,850	Aug. 18	1510	{ 393 394 }	56	834
Criswell, Peter S., Wheeling, W. Va. Brake-shoe	455,033	June 30	210	740	55	1730
Critcher, John M., Bolivar, Mo. Portable scale-support	465,837	Dec. 29	2919	747	57	1730
Critcher, John M., Bolivar, Mo., and E. B. Webber, Collierville, Tenn. Bed-brace	460,563	Oct. 6	32	8	57	8
Critchlow, Edward C., Meadville, Pa. Sole for boots or shoes	460,523	Sept. 29	3113	779	56	1695
Crittenden, James L., Oakland, Cal. Drain-pipe for buildings	452,023	May 12	899	230	55	756
Crittenden, Louis S., Canaseraga, assignor of one-half to C. W. Stevens, Hornellsville, N. Y. Wheel	457,813	Aug. 18	1446	376	56	822
Crittenden, William H., Belden, Ohio. Road-scraper	448,412	Mar. 17	1879	472	54	1494
Crittenton, Harlow M., Phillips, Wis. Apparatus for thawing logs	454,716	June 23	2338	{ 600 601 }	55	1616
Crocker, Edward L., Orinda, Tenn. Railway-gate	457,043	Aug. 4	164	40	56	564
Crocker, Ira. (See White, Charles R., assignor.)						
Crocker, Luther O., Braintree, Mass. Punch	456,983	Aug. 4	92	22	56	551
Crocker, Rodolphus W., et al. (See Nickerson, Hiram B., assignor.)						
Crocker-Wheeler Electric Motor Company. (See Collins, William F., assignor.)						
Crocker-Wheeler Electric Motor Company. (See Wheeler, Schuyler S., assignor.)						
Crockett, David T., Bridgeport, Conn. Kettle for melting guns	463,828	Nov. 24	2556	666	57	1069
Croft, Daniel B., Sweet Water, Ill. Draft-equalizer	448,129	Mar. 10	1390	354	54	1391
Croft, David B., assignor of three-fourths to J. W. Wertz, Graysville, G. M. Helms, Helms, and G. C. Cabell, Danville, Va. Car-coupling	455,247	June 30	3268	829	55	1799
Crofts, William C. (See Donisthorpe and Crofts.)						
Croissant, Martin, Albany, N. Y. Step-ladder	464,495	Dec. 8	750	183	57	1287
Croley, Will F., et al. (See Hatcher, Singleton D., assignor.)						
Cromer, Aaron G. (See Eaton, Marshall F., assignor.)						
Crommie, George W., and B. Dunn, Clayville, N. Y. Drill-chuck	452,363	May 19	1495	370	55	874
Crompton, Frederick, Toronto, Canada. Apparatus for making garment-stays	461,012	Oct. 13	727	187	57	148
Crompton, George, and H. Wyman, Worcester, Mass., assignors, by mesne assignments, to Crompton Loom Works. Loom	455,175	June 30	3162	802	55	1779
Crompton Loom Works. (See Crompton and Wyman, assignors.)						
Crompton Loom Works. (See Wyman, Horace, assignor.)						
Crompton Loom Works. (See Wyman and Clark, assignors.)						
Crompton Loom Works. (See Wyman and Gordon, assignors.)						
Crompton Loom Works. (See Wyman and Webb, assignors.)						
Cromwell, Albert, Philadelphia, Pa. Game apparatus	460,431	Sept. 29	2952	738	56	1663
Cromwell, Albert, Philadelphia, Pa., assignor to McLoughlin Brothers, New York, N. Y. Game apparatus	459,997	Sept. 22	2288	574	56	1529
Cromwell, John C. (See Kennedy, Charles, assignor.)						
Cronan, James W., Tiptonville, Tenn., assignor of one-half to W. J. Hatfield, St. Louis, Mo. Buckle	452,692	May 19	2016	505	55	972
Cronin, Thomas M. (See Gorich, Ig, and Cronin.)						
Cronin, William D., and C. B. Adams, assignors to said Cronin and G. L. Horn, Philadelphia, Pa. Merry-go-round	445,134	Jan. 20	1854	480	54	378
Cronk, Adolphus V., Ord, Nebr. Hame	453,464	June 2	458	117	55	1235
Cronkrite, Henry M., U. S. Army. Fountain-pen	448,939	Mar. 24	2710	684	54	1660
Crooke, George, et al. (See Banks, George L., assignor.)						
Crooker, William W., assignor to J. F. Swain, Lynn, Mass. Blacking and burnishing boots or shoes. (Reissue)	11,144	Feb. 10	1502	370	54	810
Crookes, William, London, England. Amalgamating and extracting gold from refractory or other ores	462,535	Nov. 3	496	.....	57	646
Cropper, William A., and J. A. Lonie, Boston, Mass. Drill-gage	458,359	Aug. 25	2344	572	56	999
Crosby, Darwin E., Philadelphia, Pa. Elevator	452,426	May 19	1592	395	55	893
Crosby Electric Company. (See Van Gestel, Jean T., assignor.)						
Crosby, Ezra, Madison, Me. Sled-brake	464,296	Dec. 1	469	112	57	1223
Crosby, George S., assignor to Pratt & Letchworth, Buffalo, N. Y. Horse-collar	452,564	May 19	1815	456	55	932
Crosby, George W., assignor of three-fourths to W. J. Pate, A. B. Brittin, Clinton, and A. H. Joblin, Batesville, Ark. Combined feed-cutter and corn-husker	461,405	Oct. 13	1353	341	57	270
Crosby, James P. (See Brown and Crosby.)						
Crosby, Oliver, St. Paul, Minn. Hoisting-machine	465,982	Dec. 29	3163	811	57	1777
Croselshire, Charles F., Newark, N. J. Obtaining sulphate of zinc from zinciferous ores	457,256	Aug. 4	516	.....	56	629
Croskey, John H., and D. C. Ripley, assignors to Ripley & Co., Pittsburg, Pa. Sand-blast stencil	445,241	Jan. 27	2028	.....	54	420
Crosman, James H. (See King, William E., assignor.)						
Cross, Frank W., assignor of one-half to T. C. Basshor & Co., Baltimore, Md. Pipe-pack- ing	463,890	Nov. 24	2666	694	57	1089
Cross, Freeman H., Pulaski, assignor of one-third to E. A. Davis, Orwell, N. Y. Hand- stamp	457,304	Aug. 4	603	158	56	645
Cross, Freeman H., and C. H. Davis, Pulaski, N. Y. Teeth-separator	465,555	Dec. 22	2489	636	57	1637
Cross, Gerome L. (See Geiger, McKenzie, and Cross.)						
Cross, Gerome L., assignor to himself, G. K. Geiger, and W. D. McKenzie, Springfield, Mass. Coating compound for brick-work	448,179	Mar. 10	1468	.....	54	1407
Cross, Wellington, Fultonville, N. Y. Insole	466,287	Dec. 29	3678	959	57	1875
Cross, William, Winnipeg, Canada. Car-axle box	448,130	Mar. 10	1390	355	54	1391
Crossley, Arthur W., et al. (See Aspinall, James, assignor.)						
Crossley, Harry A., Cleveland, Ohio. Sheet-metal radiator	449,901	Apr. 7	389	98	55	76
Crosson, Perry, Wichita, Kans. Mail-pouch	450,309	Apr. 14	992	247	55	198
Crosswell, Samuel P., West Medford, Mass. Set bowl or wash-basin	447,232	Feb. 24	2860	710	54	1092
Crosswell, William, New Sharon, Me. Clapboard-machine	458,098	Aug. 18	1908	496	56	911
Crotty, John, and R. D. Bacot, New York, N. Y. Apparatus for weighing rolls of paper as the paper is wound thereon	463,732	Nov. 24	2422	635	57	1043
Crotty, John F. (See Lyons, Hugh, assignor.)						
Crotty, John S., New York, N. Y. Corset	461,668	Oct. 20	1833	453	57	364
Crouch, Riley, May, Tex. Churn	447,399	Mar. 3	206	54	54	1157
Crouch, Seborn J., assignor of two-thirds to J. J. Cox and E. D. Steele, High Point, N. C. Saw-set	457,184	Aug. 4	386	99	56	606
Crouse, George W., Lexington, N. C. Jack for repairing machines	461,321	Oct. 13	1198	305	57	240
Crout, Jefferson M., Leesville, S. C. Seed-planter and fertilizer-distributor	460,818	Oct. 6	442	{ 111 112 }	57	88
Crow, Benjamin F., St. Louis, Mo., assignor to Brownell & Wight Car Company, of Mis- souri. Trolley-support for electric cars	448,505	Mar. 17	2022	505	54	1530
Crow, James H., Dulaney, assignor of one-fourth to J. W. Fletcher, Princeton, Ky. To- bacco-prize	450,576	Apr. 14	1391	343	55	275

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Crow, William J. (See Bryant and Crow.)						
Crowdus, Walter A., assignor to J. W. Allison, trustee, Memphis, Tenn. Galvanic battery	445,425	Jan. 27	2298	596	54	475
Crowdus, Walter A., assignor to J. W. Allison, trustee, Memphis, Tenn. Galvanic battery	450,285	Apr. 14	958	238	55	191
Crowdus, Walter A., assignor to J. W. Allison, trustee, Memphis, Tenn. Galvanic battery	463,247	Nov. 17	1635	426	57	885
Crowdus, Walter A., assignor to J. W. Allison, trustee, Memphis, Tenn. Galvanic battery	463,248	Nov. 17	1635	426	57	885
Crowe, Edward and H., Middlesbrough, England. Gas and hydrocarbon motive engine	450,612	Apr. 21	1464	359 360	55	295
Crowe, Frederick C., assignor to F. W. Parker, trustee, Chicago, Ill. Railway-crossing gate	462,216	Oct. 27	2704	682	57	539
Crowe, Henry. (See Crowe, Edward and H.)						
Crowe, Paul L., Kansas City, Mo. Revolvable grate	454,841	June 30	2543	654	55	1660
Crowell, Abner B., Richmond, Va. Lifting-jack	455,609	July 7	506	131	56	97
Crowell, Frank. (See Knight, Charles Y., assignor.)						
Crowell, Hilen C., Westfield, N. Y. Friction-clutch	461,929	Oct. 27	2268	561	57	457
Crowell, Hilen C., assignor to E. D. Schmitt, Erie, Pa. Friction-clutch	465,429	Dec. 15	2267	582	57	1586
Crowell, John H. (See Blair and Crowell.)						
Crowell, Luther C., Brooklyn, assignor to R. Hoe, S. D. Tucker, T. H. Mead, and C. W. Carpenter, New York, N. Y. Web-printing machine	446,829	Feb. 17	2140	531 532 533	54	950
Crowell, Luther C., Brooklyn, assignor to R. Hoe, S. D. Tucker, T. H. Mead, and C. W. Carpenter, New York, N. Y. Printing attachment for the delivery mechanism of web-printing machines	452,596	May 19	1863	469	55	942
Crowell, Luther C., Brooklyn, assignor to R. Hoe, S. D. Tucker, T. H. Mead, and C. W. Carpenter, New York, N. Y. Web-printing machine	452,693	May 19	2017	505	55	973
Crowell, Luther C., Brooklyn, assignor to R. Hoe, S. D. Tucker, T. H. Mead, and C. W. Carpenter, New York, N. Y. Folding mechanism	453,395	June 2	330	86 91 92 93 94	55	1209
Crowell, Luther C., Brooklyn, assignor to R. Hoe, S. D. Tucker, T. H. Mead, and C. W. Carpenter, New York, N. Y. Delivery mechanism for web-printing machines	453,407	June 2	351	91 92 93 94	55	1214
Crowell, Luther C., Brooklyn, assignor to R. Hoe, S. D. Tucker, T. H. Mead, and C. W. Carpenter, New York, N. Y. Inking mechanism for printing-machines	453,408	June 2	364	94, 95	55	1215
Crowell, Milton B., Newport News, assignor of one-half to C. M. Bickford, Hampton, Va. Pedal attachment for organs	447,560	Mar. 3	477	117	54	1207
Crowell, Thomas A., Washington, D. C. Dehorner	454,563	June 23	2082	537	55	1569
Crowell, William D., Weston, Ky. Weed attachment for plows	449,465	Mar. 31	3586	903	54	1831
Crowley, George G., assignor to Johnston Harvester Company, Batavia, N. Y. Disk harrow	449,871	Apr. 7	342	87, 88	55	68
Crowley, James F. (See Lynch and Crowley.)						
Crowley, Joseph. (See Morgan and Crowley.)						
Crowley, Richard J., assignor of seventeen-twentieths to J. Douglass, Los Angeles, Cal., W. H. Burnett, Ouray, Colo., A. Salter, and A. D. Hunt, London, England. Signaling apparatus	456,478	July 21	1872	494	56	373
Crown Manufacturing Company. (See Smith, Alexander, assignor.)						
Crucial, James B., Fargo, N. D. Druggist's prescription desk and file	457,399	Aug. 11	795	205	56	688
Crudginton, James F., and E. E. Norton, Bridgeport, Conn. Machine for setting studs or rivets	453,423	June 2	391	101 102 103	55	1221
Cruise, Thomas H. J., Toronto, Canada. Street-car service	446,731	Feb. 17	1991	497	54	918
Crumb, John H., Burlingame, Kans. Traction-engine	451,811	May 5	555	137 138	55	685
Crumbaugh, John W., et al. (See Martin, Louis F., assignor.)						
Crumbaugh, John W., and L. C. Prater, Kansas City, Mo. Car-door	461,739	Oct. 20	1943	482 483	57	385
Cruse, Amandus H., Brooklyn, assignor, by mesne assignments, to J. Bien and W. Franklin, New York, N. Y. Device for applying zinc or other thin sheets to bed-plates	457,305	Aug. 4	604	158	56	645
Cruzan, Newton A., Astoria, Ill. End-gate	451,916	May 12	736	185	55	725
Cuadros, Manuel J., Liege, Belgium. Metallic cartridge	444,336	Jan. 6	554	143	54	111
Cuadros, Manuel J., Liege, Belgium. Apparatus for automatically regulating the firing of ordnance on ships	455,176	June 30	3169	803	55	1780
Culhane, Daniel. (See Brice, Richard J., assignor.)						
Cullen, Christopher. (See Golden, Samuel, assignor.)						
Culmer, John W., New Brighton, Pa. Weighing and price scale	448,911	Mar. 24	2671	671 672 301 302	54	1652
Culmer, John W., New Brighton, Pa. Amalgamator	452,177	May 12	1193	301 302	55	806
Culmer, John W., New Brighton, Pa. Domestic gas-burner	462,893	Nov. 10	1078	279	57	768
Culp, Samuel T., Denver, Colo. Bellows	444,744	Jan. 13	1201	311	54	243
Culver, David, Wilkes-Barre, Pa. Water-wheel	456,402	July 21	1747	461	56	350
Culver, Frank S., Eau Claire, Wis. Electric railway	450,613	Apr. 21	1467	360 361	55	296
Culver, John O., Calistoga, Cal. Window-cleaner	456,356	July 21	1668	440	56	335
Culver, Lucius L., St. Louis, Mo. Grate	450,058	Apr. 7	603	151	55	117
Culver, Renben D., Logan, Ohio. Coin-case	451,664	May 5	339	83	55	643
Cumberland Manufacturing Co. (See Warren, John E., assignor.)						
Cuming, M. A. (See O'Gorman, Michael, assignor.)						
Cuming, Mari A. (See Fefel, Henry H., assignor.)						
Cummer, Herbert H., Cadillac, Mich. Folding table	455,681	July 7	614	161	56	119
Cummings, Charles, Oakland, Cal. Apparatus for transmitting power by means of compressed air	456,941	Aug. 4	18	4, 5, 6	56	536
Cummings, Charles, Oakland, Cal. Rock-drill	456,942	Aug. 4	29	6, 7	56	538
Cummings, Charles C. (See Franklin, Rodolph H., assignor.)						
Cummings & Co., David. (See Bradeen, Joshua E. L., assignor.)						
Cummings, Edward N., Lynn, Mass. Piano	454,901	June 30	2650	679	55	1680
Cummings, George L., New York, N. Y. Wood-sawing machine	446,510	Feb. 17	1659	405	54	854
Cummings, George L., New York, N. Y. Pneumatic carpet-cleaning apparatus	460,935	Oct. 6	619	158	57	121
Cummings, George W. (See Winsor and Cummings.)						
Cummings, Henry H., Malden, assignor to Davis-Moore Sewing Machine Company, Boston, Mass. Sewing-machine	447,008	Feb. 24	2446	608 609	54	1015
Cummings, Henry H., Malden, assignor to Davis-Moore Sewing Machine Company, Boston, Mass. Take-up for sewing-machines	447,009	Feb. 24	2449	610	54	1015

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Cummings, Henry H., Malden, assignor of one-half to E. B. Marsh, Amherst, Mass. Street letter-box.....	464,275	Dec. 1	432	103	57	1217
Cummings, John R., Chicago, Ill. Combined stereotype-plate trimming, beveling, and shaving machine.....	465,351	Dec. 15	2153	{ 551 552 }	57	1562
Cummings, John R., Chicago, Ill. Delivery mechanism of stereotype-plate trimming, grooving, and shaving machines.....	465,352	Dec. 15	2157	552	57	1563
Cummings, John R., Chicago, Ill. Machine for trimming, shaving, and grooving stereotype-plates.....	465,353	Dec. 15	2159	553	57	1563
Cummings, John R., assignor to American Press Association, Chicago, Ill. Stereotyper's casting apparatus.....	457,896	Aug. 18	1591	414	56	848
Cummings, John R., assignor to American Press Association, Chicago, Ill. Stereotype-casting apparatus.....	457,897	Aug. 18	1592	414	56	848
Cummings, John R., assignor to American Press Association, Chicago, Ill. Combined circular cutter and saw.....	457,898	Aug. 18	1593	{ 414 415 }	56	848
Cummings, Orson D. (See Bemis and Cummings.).....						
Cummings, Uriah, New Haven, Conn. Pneumatic pump.....	464,651	Dec. 8	989	247	57	1334
Cummings, Uriah, New Haven, Conn. Pneumatic pump.....	465,243	Dec. 15	1963	502	57	1528
Cummings, Wilbur E., Woburn, Mass. Heel-cutting machine.....	451,917	May 12	737	185	55	725
Cummings, Wilbur E., Woburn, Mass. Machine for assorting heel-blanks.....	461,924	Oct. 27	2259	559	57	455
Cummings, William H., Chicago, Ill. Friction-clutch.....	449,312	Mar. 31	3312	836	54	1780
Cummins, Charles T., assignor to Compress Wheel Company, Chicago, Ill. Wheel.....	455,277	June 30	3336	843	55	1813
Cummins, George W., Vienna, N. J., assignor, by mesne assignments, of one-half to M. A. Coleman, New York, N. Y. Process of and apparatus for producing hot-rolled copper free from oxidation.....	445,691	Feb. 3	290	76	54	569
Cummins, Lawson C., East Montpelier, Vt. Fishing-float.....	457,510	Aug. 11	972	248	56	721
Cummins, Michael, Leadville, Colo. Rod or pipe wrench.....	453,736	June 9	878	227	55	1322
Cummins, Michael, New York, N. Y. Wrench.....	454,678	June 23	2281	585	55	1603
Cummins, Theodore, Hackettstown, assignor of one-half to A. B. Albert, Danville, N. J. Horn-tip for animals.....	456,887	July 28	2557	672	56	510
Cummsksey, Owen, New York, N. Y. Holdback for vehicles.....	462,377	Nov. 3	256	63	57	600
Cummock, Arthur J., Lowell, assignor to J. F. Morrill, Boston, Mass. Mask.....	460,301	Sept. 29	2764	688	56	1028
Cunningham, Albert, Milwaukee, Wis. Band-saw mill. (Reissue).....	11,203	Nov. 24	2847	737	57	1124
Cunningham, Alexander G. (See Walsh, James R., assignor.).....						
Cunningham, Arthur. (See Cunningham, George H. and A.).....						
Cunningham, Frank R., assignor to A. F. Richardson, Ware, Mass. Watch-jewel holder.....	461,322	Oct. 13	1200	305	57	240
Cunningham, George A. (See Cunningham, James C. and G. A.).....						
Cunningham, George H. and A., Weymouth Centre, Mass. Leather-crimping machine.....	459,192	Sept. 8	1017	249	56	1270
Cunningham, George W., and J. M. Ferry, Bismarck, Ill. Replanting attachment for cultivators.....	448,131	Mar. 10	1391	355	54	1392
Cunningham, Henry, et al. (See Smith, John P., assignor.).....						
Cunningham, Henry, Bathtown, Ill. Roofing-paper.....	446,145	Feb. 10	1043	.....	54	721
Cunningham, James C. and G. A., St. Mary's, Kans. Low-binding harvester.....	453,077	May 26	2646	{ 667 668 }	55	1102
Cunningham, James F., Sr., Anson, Tex., assignor of one-half to J. I. Case Threshing Machine Company, Racine, Wis. Cotton-cleaner.....	463,330	Nov. 17	1767	462	57	909
Cunningham, Luther, Saratoga, Cal. Prune scalding and rinsing machine.....	464,631	Dec. 8	956	236	57	1327
Cunningham, Mary J., Boston, Mass. Bed-pan.....	445,011	Jan. 20	1668	428	54	342
Cunningham, Newton, Sutton, W. Va. Vehicle-brake.....	460,564	Oct. 6	33	8	57	8
Cunningham, Patrick, New Bedford, Mass., assignor to American Carrier Rocket Company. Rocket-primer.....	455,278	June 30	3337	843	55	1813
Cunningham, Patrick, New Bedford, Mass., assignor to American Carrier Rocket Company. Combined carrying-box and firing-chute for rockets.....	455,279	June 30	3338	843	55	1813
Cunningham, Thomas C., and L. A. Funk, Sigourney, Iowa. Stump-puller spool.....	449,207	Mar. 31	3129	789	54	1748
Cunningham, Wilbur J., assignor of one-half to L. L. Davis, Rapid City, S. D. Valve-gear.....	451,812	May 5	558	138	55	685
Cunningham, William F., assignor of one-half to E. Rutzler, Brooklyn, N. Y. Weather-strip.....	454,994	June 30	2847	724	55	1718
Cunningham, William R., assignor to Wallace Manufacturing Company, Frankfort, Ind. Brick or tile cutting machine.....	459,719	Sept. 15	1865	{ 468 469 }	56	1442
Cuno, Charles, Milwaukee, Wis. Shingle-painting machine.....	444,902	Jan. 20	1484	{ 383 384 }	54	306
Cunynghame, Henry H., F. L. Rawson, and O. E. Woodhouse, London, England. Instrument for measuring electric currents.....	450,221	Apr. 14	846	212	55	170
Cupples, Samuel. (See West, James, assignor.).....						
Curl, Mary C. (See Hampton and Haner, assignors.).....						
Curley, Thomas, Troy, N. Y. Lemon-juice extractor.....	465,244	Dec. 15	1965	502	57	1529
Curlin, John V., Edith, Tenn. Grain-drier.....	448,132	Mar. 10	1393	{ 355 356 }	54	1392
Curran, William H., Riverside, Ohio. Heading-dressing machine.....	445,619	Feb. 3	158	42	54	542
Curran, Richard L. (See Willis, Charles E., assignor.).....						
Currie, Horace T., Albina, Oreg. Rail-cleaning and lubricating attachment for locomotives.....	444,694	Jan. 13	1114	288	54	228
Currie, James A., Springfield, Ohio. Cereal food and producing the same.....	460,320	Sept. 29	2795	696	56	1634
Currie, Stanley C. C., assignor to United Gas Improvement Company, Philadelphia, Pa. Electrode for secondary batteries.....	444,392	Jan. 6	642	167	54	126
Currie, Stanley C. C., assignor to United Gas Improvement Company, Philadelphia, Pa. Secondary battery.....	447,279	Feb. 24	2935	730	54	1108
Currie, Stanley C. C., assignor to United Gas Improvement Company, Philadelphia, Pa. Making plates of secondary batteries.....	450,834	Apr. 21	1847	450	55	374
Currie, Stanley C. C., assignor to United Gas Improvement Company, Philadelphia, Pa. Secondary battery.....	453,995	June 9	1235	321	55	1392
Currie, Stanley C. C., assignor to United Gas Improvement Company, Philadelphia, Pa. Making plates for secondary batteries.....	459,491	Sept. 15	1492	374	56	1371
Currier, Alfred M., assignor of one-half to W. Page, Waverly, N. Y. Combined center and invalid's table.....	454,928	June 30	2719	694	55	1693
Currier, Curtis S. (See Currier, Richard B., assignor.).....						
Currier, Jacob B., and D. H. Rice, Lowell, Mass. System of electric calls.....	446,732	Feb. 17	1992	{ 497 498 }	54	919
Currier, John, Amesbury, Mass. Carriage-seat.....	460,910	Oct. 6	585	148	57	114
Currier, Richard B., assignor of one-half to C. S. Currier, Almont, Mich. Miter-box.....	446,431	Feb. 17	1535	378	54	820
Currier Telephone Bell Company. (See Rice, David H., assignor.).....						
Curry, James P. (See Beach, Oscar W., assignor.).....						
Curry, William, Baltimore, Md. Glass-covered electric wire.....	452,565	May 19	1816	457	55	932
Curtice Brothers. (See Curtice, Jesse M. and W. H., assignors.).....						
Curtice, Jesse M. and W. H., assignors to Curtice Brothers, Louisville, Ky. Churn.....	459,347	Sept. 8	1258	{ 309 310 }	56	1318

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Curtice, John M., Lowell, Mass. Yarn guide and clearer	448,296	Mar. 17	1693	428	54	1459
Curtice, John M., assignor to himself and Lowell Machine Shop, Lowell, Mass. Yarn-cleaner for spooling-machines	448,622	Mar. 17	2217	555	54	1559
Curtice, William H. (See Curtice, Jesse M. and W. H.)						
Curtin, Henry. (See Hose and Curtin.)						
Curtin, Hugh A., New York, N. Y. Secondary book-cover	455,448	July 7	239	61	56	49
Curtis, Arthur B., Revere, Mass. Bolt support and guide for safe-doors	456,084	July 14	1237	325	56	244
Curtis, Benjamin F., Atlanta, Ga. Railway-rail	460,742	Oct. 6	338	83	57	67
Curtis, Charles G., New York, N. Y. Electric motor or dynamo-electric machine	455,898	July 14	967	252 253	56	194
Curtis, Charles H., Niles, Ohio. Metal lathing	460,850	Oct. 6	483	123	57	96
Curtis, Charles L., Brooklyn, assignor to N. B. Abbott Machine Company, New York, N. Y. Applying wire cork-retainers to bottles	445,803	Feb. 3	498	120	54	609
Curtis, Charles L., Brooklyn, assignor to N. B. Abbott Machine Company, New York, N. Y. Bottle-wiring machine	448,854	Mar. 24	2586	650 651	54	1636
Curtis, Charles S., and C. Boggs, Summit, Miss. Cultivator	465,165	Dec. 15	1850	469	57	1505
Curtis & Curtis. (See Curtis, Lewis B., assignor.)						
Curtis, David G. (See Ashbaugh, John I., assignor.)						
Curtis, David W., Fort Atkinson, Wis. Butter-worker	456,248	July 21	1498	398	56	303
Curtis, Frank, Jr., assignor of one-half to W. E. Banfield, Worcester, Mass. Friction-clutch for screw-machines	466,224	Dec. 29	3558	910 911	57	1853
Curtis, Gram. (See Witherow and Curtis.)						
Curtis, Henry E., Bridgeport, Conn. Hinge	457,824	Aug. 18	1464	381	56	825
Curtis, Henry E., Springfield, Mass., assignor to Yost Writing Machine Company, New York, N. Y. Type-writing machine	446,432	Feb. 17	1536	378	54	829
Curtis, Lewis B., Southport, assignor to Curtis & Curtis, Bridgeport, Conn. Pipe-threading-attachment for lathes	465,838	Dec. 29	2920	747	57	1731
Curtis Manufacturing Company. (See Adsit, George A., assignor.)						
Curtis, Rowland K., Wabash, Ind., assignor of one-half to C. H. Lawton. Tilting barrel stand and truck	446,404	Feb. 10	1488	366	54	807
Curtis Sons & Co. (See Rhodes, William H., assignor.)						
Curtis, Theodore A. (See Johnson and Curtis.)						
Curtis, Theodore H., Cleveland, Ohio. Slaughtering apparatus	448,413	Mar. 17	1880	472 473	54	1494
Curtis, Theodore H., Cleveland, Ohio. Apparatus for catching and elevating hogs	458,018	Aug. 18	1792	468	56	886
Curtis, Wallace B., Pomeroy, Ohio. Bale-tie	448,830	Mar. 24	2544	638	54	1628
Curtis, Wallace B., Pomeroy, Ohio. Door-mat	456,085	July 14	1238	325	56	244
Curtis, Wallace B., Pomeroy, and C. Himrod, Jackson, Ohio. Lamp-shade	445,259	Jan. 27	2065	532	54	427
Curtis & Wheeler. (See Gillard, Nathaniel, assignor.)						
Curtis, William H., Olean, N. Y. Axle	463,621	Nov. 24	2245	591	57	1011
Curtiss, Edward W., Portland, Oreg. Steam-engine	449,208	Mar. 31	3130	789	54	1748
Curtiss, Edward W., Portland, Oreg. Steam ore-stamp	465,128	Dec. 15	1792	452 453	57	1494
Curtiss, George F., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric fuse	449,209	Mar. 31	3131	789	54	1749
Curtiss, Jay C. D., Rochester, N. Y. Vessel-holder for druggists' use	447,605	Mar. 3	545	135	54	1220
Curtiss, Spencer W., and C. S. Middleton, Sugar Grove, Pa. Machine for cutting corn-stalks, straw, and roots	452,262	May 12	1321	330	55	832
Curtius-Brockhoff, Friedrich, Duisburg, Germany. Apparatus for the manufacture of nitramarine	454,856	June 30	2564	659	55	1664
Curtus, Alexander, et al. (See Fottrell, John, assignor.)						
Curwen, Charles F. (See Rogers, Columbus K., assignor.)						
Cushing, Albert H. (See Bryant, Zenas F., assignor.)						
Cushing, Christopher, Providence, R. I. Pump	462,471	Nov. 3	401	98	57	626
Cushing, Enos L., Albion, N. Y. Suppository-mold	448,133	Mar. 10	1394	356	54	1392
Cushing, George W., Chicago, Ill. Car-seat	450,881	Sept. 22	2127	534	56	1499
Cushing, John P. (See Kelly, William J., assignor.)						
Cushing, John P., and W. J. Kelly, Boston, Mass. Circuit-controlling apparatus	460,199	Sept. 29	2603	650 651	56	1596
Cushman, Abe L., assignor to J. A. White, Concord, N. H. Dust-guard for car-axle boxes	456,479	July 21	1874	495	56	373
Cushman, George F. (See Parker and Cushman.)						
Cushman, George W., New York, N. Y. Pedal for velocipedes	447,145	Feb. 24	2708	671	54	1062
Cushman Paper Box Machine Company. (See Taylor, Eugene H., assignor.)						
Cussen, William J., Richmond, Va. Tobacco-pouch	444,291	Jan. 6	491	128	54	98
Cussen, William J., Richmond, Va. Tobacco-pouch	444,292	Jan. 6	492	128	54	98
Cussen, William J., Richmond, Va. Tobacco-pouch	444,293	Jan. 6	493	129	54	98
Cussen, William J., Henrico County, assignor of three-fifths to M. Millhiser & Co., Richmond, Va. Tobacco bag or pouch	445,881	Feb. 3	606	149	54	631
Cussen, William J., assignor of three-fifths to M. Millhiser & Co., Richmond, Va. Tobacco-pouch	447,103	Feb. 24	2609	648	54	1046
Cussen, William J., assignor of three-fifths to M. Millhiser & Co., Richmond, Va. Tobacco-pouch	463,597	Nov. 17	2197	579	57	993
Cassons, John, Glen Allen, Va. Calendar	462,627	Nov. 3	637	161	57	674
Caster, Sylvester B., and W. L. Gorrell, Sandy, W. Va. Pruning implement	458,560	Sept. 1	21	4	56	1069
Catcheong, James C., and C. S. Johnson, Lynn, Mass. Sole-heating-out machine	454,258	June 16	1610	423	55	1472
Cuthbert, William N., Bright, Canada. Blackboard, &c.	454,597	June 23	2157	557	55	1581
Cuthbertson, John, Lowell, Mass. Tension device for loom-shuttles	448,475	Mar. 17	1979	497	54	1512
Cutmore, Hahnemann A., South Yarra, Melbourne, Victoria. Speaking-tube	454,399	June 16	1822	477	55	1511
Cutler, Charles, assignor of one-half to F. N. Shaw, Minneapolis, Minn. Photographer's retouching and marking apparatus	456,555	July 28	2002	528	56	406
Cutler, Henry H., Newton, Mass. Electric gas-lighting apparatus	445,727	Feb. 3	346	91	54	581
Cutler, Henry H., Newton, Mass. Electric gas-lighter	445,728	Feb. 3	349	91	54	581
Cutler, James L., Piketon, Ohio. Base-ball indicator	463,491	Nov. 17	2015	528	57	958
Cutler, Joseph P., Rock Springs, Md. Dust-cap for vehicle-axes	456,556	July 28	2003	529	56	406
Cutler, Joseph W., Rochester, N. Y. Letter-box	459,974	Sept. 22	2259	567	56	1523
Cutshaw, Leonard, Denver, Colo. System for cable railways	449,466	Mar. 31	3587	903 904	54	1832
Cutten, James H., assignor to Davis-Moore Sewing Machine Company, Boston, Mass. Thread-guard for sewing-machines	447,280	Feb. 24	2937	730	54	1109
Cutter, George. (See Lounsbury, James A., assignor.)						
Cutter, George. (See Morgan, John H., Jr., assignor.)						
Cutter, George. (See Robinson, Charles A., assignor.)						
Cutter, George, Chicago, Ill. Molding for electric wiring	444,377	Jan. 6	614	158	54	121

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Cutter, George, and C. G. Armstrong, Chicago, Ill. Electric switch	445,310	Jan. 27	2132	{ 550 551 135 136 }	54	441
Cutter, Solomon M., assignor to W. A. Marsh, Quebec, Canada. Shoe-slugging machine..	457,257	Aug. 4	517	{ 135 136 }	56	629
Cuttriss, Charles, New York, N. Y. Manufacturing insulated conductors	455,789	July 14	806	211	56	164
Cuttriss, Charles, New York, N. Y. Telephone	464,950	Dec. 15	1470	370	57	1436
Cutting, Frank A., Winchester, Mass. Freight-car	453,579	June 2	624	159	55	1265
Cyclone Steam Snow Plow Company. (See Caldwell, Edward P., assignor.)						
Cziner, Matyas, New York, N. Y. Bottle-stopper	456,480	July 21	1875	495	56	374
D'Auria, Luigi, Philadelphia, Pa. Bench-dog	460,047	Sept. 22	2369	592	56	1544
D'Auria, Luigi, assignor of one-half to H. M. Robert, Philadelphia, Pa. Direct-acting pumping-engine	446,435	Feb. 17	1541	379	54	830
D'Homergue, Louis C., assignor of three-fourths to J. J. Bryers, Brooklyn, L. W. Frost, Jamaica, N. Y., and H. M. Thompson. Bicycle-railway	456,215	July 21	1437	381	56	292
D'Ivernois, Charles L., Brooklyn, N. Y. Insect-trap	465,167	Dec. 15	1852	470	57	1506
Daggett, Arthur C., Vineland, N. J. Baking or roasting pan	464,685	Dec. 8	1049	262	57	1344
Daggett, Byron H., Buffalo, N. Y. Fracture apparatus	449,436	Mar. 31	3538	892	54	1823
Daggett, John C., Neponset, assignor to A. Fuller and E. C. Judd, Boston, Mass. Chan- nel-flap-laying device	455,560	July 7	422	112	56	82
Daggett, John S., Brooklyn, assignor of one-half to W. Courtenay, New York, N. Y. Trunk. Dagle, Ozo F. (See Ellis, Charles A., assignor.)	446,812	Feb. 17	2116	526	54	945
Dahl, Charles A. (See Reed and Dahl.)						
Dahl, Charles A., Lynn, Mass., assignor to Globe Buttonhole Sewing Machine Company, Kittery, Me. Mechanism for operating button-hole-stitching machines	450,841	Apr. 21	1858	{ 452 453 }	55	376
Dahl, Ellert W., New York, N. Y. Making white lead	452,263	May 12	1322		55	832
Dahl, Mens A., West Orange, N. J. Attachment for graduated rules	457,077	Aug. 4	231	59	56	577
Dahlen, Charles, New York, N. Y. Window-frame	452,694	May 19	2020	505	55	973
Dahlgren, Carl G., and J. H. Svensson, Gothenburg, Sweden. Electric switch	455,837	July 14	883	232	56	178
Dahlman, Henry, Cambridge, Minn. Spoke-puller	462,536	Nov. 3	499	122	57	646
Dahlquist, John, Portland, Oreg., and O. N. Dahlquist, Tucker, Wash. Water-power wheel	447,810	Mar. 10	882	220	54	1292
Dahlquist, Olof N. (See Dahlquist, John and O. N.)						
Dahm, Caspar, Münster, Germany. Machine for making transfer graining-paper	463,442	Nov. 17	1947	508	57	945
Dalley, Abram H. (See Wheeler, Frederick G., assignor.) (Reissue.)						
Dalley, Asa G., et al. (See Susemihl, Francis G., assignor.)						
Dalley, William H., St. Louis, Mo. Shutter-fastener	463,104	Nov. 10	1405	363	57	833
Dallson, Samuel, Bridgewater, Pa. Ejector-pump	456,984	Aug. 4	92	23	56	551
Dally, John, Marengo, Ohio. Gearing	447,447	Mar. 3	288	73	54	1172
Daily, John W., Denver, Colo. Speculum	458,708	Sept. 1	247	59	56	1113
Daily, Michael, Lebanon, N. H. Device for securing tool-handles	445,976	Feb. 10	752	184	54	669
Dain, Albert E., Pittsburg, Pa. Bottle-stopper	450,993	Apr. 21	2100	518	55	422
Dain, Joseph, Jr., assignor to Dain Manufacturing Company, Carrollton, Mo. Corn-har- vester	458,709	Sept. 1	249	59	56	1113
Dain Manufacturing Company. (See Dain, Joseph, Jr., assignor.)						
Dake, Charles M., assignor to himself and C. W. Spellman, Buffalo, N. Y. Furnace	462,396	Nov. 3	290	72	57	606
Dakin, Archelaus C., Clinton, Mass. Tension device for endless bands of spinning-ma- chines	458,444	Aug. 25	2483	604	56	1024
Dale, George L., Newark, N. J. Automatic egg-boiler	447,945	Mar. 10	1105	278	54	3334
Dale, George L., Newark, N. J. Separator	451,918	May 12	739	{ 185 186 }	55	725
Dales, J. J. (See Wilson, John H., assignor.)						
Dales, John H., Leeds, England. Governor	458,045	Aug. 18	1833	{ 477 478 }	56	895
Daley, Michael, De Kalb, Ill. Journal-bearing	450,004	Apr. 7	531	132	55	103
Dalie, John G., assignor to J. Lefel & Company, Springfield, Ohio. Oiler for engines	452,773	May 26	2149	538	55	1006
Dalin, Gust, assignor to Mechanic's Machine Company, Rockford, Ill. Drilling-machine..	362,397	Nov. 3	291	72	57	606
Dallett, George A., et al. (See Whipple, Fenner E., assignor.)						
Dallett, Thomas H., et al. (See Whipple, Fenner E., assignor.)						
Dallis, Thomas N., Spartanburg, S. C. File or rasp	445,712	Feb. 3	323	85	54	576
Dallmer, Albert. (See Krieger and Dallmer.)						
Dallmeyer, Thomas R., and F. Beauchamp, London, England. Instantaneous photographic shutters	449,733	Apr. 7	140	35	55	29
Dalot, John L., assignor to himself and J. Dalot, Addison, Me. Producing chamfers	450,507	Apr. 14	1307	320	55	258
Dalot, Joseph. (See Dalot, John L., assignor.)						
Dalsimer, Sylvan. (See O'Connor, Edward L., assignor.)						
Dalton, Daniel F., assignor to Chapman & Armstrong Manufacturing Company, Water- bury, Conn. Extension-bracket	455,707	July 7	666	176	56	129
Dalton, Eugene V., deceased, Chicago, Ill., E. S. Frasher and L. R. Dalton administrators. Whirling top for smoke-stacks	453,465	June 2	459	118	55	1235
Dalton, Lucy R., et al., administrators. (See Dalton, Eugene V.)						
Dalton Manufacturing Company. (See Dalton, Robert M., assignor.)						
Dalton, Robert M., Norris, assignor to Dalton Manufacturing Company, Detroit, Mich. Combined sprinkler and seeder	451,107	Apr. 28	2260	560	55	464
Dalumi, Julius A., New York, N. Y. Folding ladder	446,433	Feb. 17	1538	378	54	830
Daly, Alphonsus L., Birmingham, N. Y. Combined tool	457,526	Aug. 11	988	253	56	725
Daly, Charles C., Delhi, Ill. Milk-strainer	452,264	May 12	1323	381	55	832
Daly, Daniel A., Detroit, Mich. Shovel	450,449	Apr. 14	1222	299	55	239
Daly, James W., Troy, N. Y. Pipe-coupling nipple	446,511	Feb. 17	1660	405	54	854
Daly, James W., assignor of two-thirds to M. A. Bottum and J. T. Horan, Troy, N. Y. Nipple for connecting iron pipes with lead pipes	461,127	Oct. 13	884	229	57	177
Daly, John F. (See Barrett and Daly.)						
Damer, Mary A. (See Damer, William, assignor.)						
Daly, Michael J., Granton, N. J. Bridle-bit	446,944	Feb. 24	2351	584	54	996
Daly, Michael J., assignor of one-half to G. Nimmo, Allegheny, Pa. Car-guard	460,082	Sept. 22	2422	{ 605 606 }	56	1555
Dalziel, Harvey, London, England. Backing-block for stereotype-plates	444,949	Jan. 20	1574	404	54	323
Damborg, Thorwold C. (See Chambers, Mendham, and Damborg.)						
Damer, William, Toronto, Canada, assignor to M. A. Damer, East Saginaw, Mich. Shoe- maker's rule	451,552	May 5	160	39	55	610
Damish, Frederick, Graham's Turnout, S. O., assignor to J. I. Damish, Philadelphia, Pa. Marking attachment for plows	463,946	Nov. 24	2754	714	57	1106
Damish, John I. (See Damish, Frederick, assignor.)						
Damm, Fredrick C., Findlay, Ohio. Ball-trap with flexible throwing-arm	453,857	June 9	1043	273	55	1354
Damm, Fredrick C., Findlay, Ohio. Ball-trap with flexible throwing-arms	455,310	July 7	21	5	56	7

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Dammond, R. P. (See Kirkpatrick, Robert S., assignor.)						
Damou, Daniel E. (See Hamblin, Silvanus, assignor.)						
Damon, George, Cranford, N. J., and E. S. Peets, New York, N. Y. Machine for shaving printers' leads	454,153	June 16	1463	384	55	1443
Damon, George H., Paw Paw, Ill. Gate	456,020	July 14	1158	303	56	228
Damron, John H., Duffau, Tex. Siphon	462,654	Nov. 3	675	171	57	681
Dana, Charles H., West Lebanon, N. H. Fruit and vegetable cutter	446,379	Feb. 10	1435	352 353	54	797
Dana, Edward A., Fairhaven, Mass. Windmill	446,512	Feb. 17	1661	405	54	854
Danaher, Frederick F., Brooklyn, N. Y. Force-pump	446,283	Feb. 10	1291	316	54	768
Danals, Cyrus A., and W. O. Perry, Zanesville, Ohio. Adjustable rest for holding electric lamps suspended	451,108	Apr. 28	2261	560	55	464
Dancel, Christian. (See Birch and Dancel.)						
Dancel, Christian, Brooklyn, N. Y. Sewing-machine	459,036	Sept. 8	767	186 187	56	1223
Dane, John, Jr., Orange, N. J. Fare-recording register	443,988	Jan. 6	2	1	54	3
Danforth, Delos A., assignor of one-half to A. N. Chamberlain, Elkhart, Ind. Apparatus for grinding sickles	464,817	Dec. 8	1249	313	57	1382
Dangler Stove and Manufacturing Company. (See Ruppel, Henry, assignor.)						
Daniel, James W., Savannah, Ga. Spring-back for vehicles	462,655	Nov. 3	677	171	57	682
Daniel, John D., Mayfield, N. C. Windlass	447,764	Mar. 10	795	197	54	1276
Daniel, Thomas J., assignor of one-half to L. C. Diekmann, St. Louis, Mo. Sash-fastener	459,676	Sept. 15	1800	452	56	1429
Daniel, William T. (See Kaylor, McComb, and Daniel.)						
Daniels, Archibald F. G. (See Hutton and Daniels.)						
Daniels, Fred H., Worcester, Mass. Apparatus for coiling wire rods	444,550	Jan. 13	899	233 234	54	187
Daniels, Fred H., Worcester, Mass. Apparatus for coiling wire rods	444,551	Jan. 13	902	234	54	187
Daniels, Fred H., Worcester, Mass. Mechanism for coiling wire rods	445,965	Feb. 3	732	178	54	656
Daniels, Howard, Greenville, S. C., assignor of one-half to J. H. Simonson, Fort Wayne, Ind. Lumber-piling machine	461,323	Oct. 13	1201	306	57	240
Daniels, James E., Paulina, Iowa, assignor of one-half to G. Hakeman and S. Harris. Fence-post	448,180	Mar. 10	1469	374	54	1407
Daniels, Joseph L., Olivet, Mich. Shelving	454,259	June 16	1611	423	55	1472
Danjean, John B., Foster, La. Pipe-cutter	463,105	Nov. 10	1406	363	57	834
Dankworth, William J., Gatesville, Tex. Hame-hook	444,664	Jan. 13	1065	277	54	218
Dann, Cardigan, Williamstown, Victoria. Universal torpedo-dropping gear	455,742	July 14	731	192 193	56	149
Dannenbergh, Charles, assignor to two-fifths to H. M. Billings, Boston, Mass. Apparatus for distributing letters in buildings	457,527	Aug. 11	989	253	56	725
Danner, John, Canton, Ohio. Washing-machine	453,336	June 2	248	66	55	1195
Dannhauser, Louis, Munich, Germany. Bridle	455,472	July 7	273	69, 70	56	55
Dannhauser, Louis, Munich, Germany. Bridle	455,480	July 7	286	73	56	58
Danser, James W. (See Ely, Danser, and Rue.)						
Darby, Catharine L., Stamford, Conn. Clothing-protector	462,965	Nov. 10	1190	308 309	57	790
Darby, Elijah F. (See Quick, Frank M., assignor.)						
Darby, Matthias L., assignor of one-half to L. E. Mascot, Elizabeth, N. J. Bench-hook	459,745	Sept. 22	1909	481	56	1457
Darden, John J., Giddings, Tex. Wire-fence machine	460,565	Oct. 6	34	8	57	8
Dardonville, Jules, New York, N. Y. Tube for holding lamps in sockets	452,364	May 19	1495	370	55	874
Dare, Stockwell, et al. (See Dare, William H., assignor.)						
Dare, William H., assignor to S. Dare and S. W. Bower, Whitestone, N. Y. Handling double stay-sail sheets	460,466	Sept. 29	3007	753	56	1673
Darke, Edward T., London, England. Inkstand	451,030	Apr. 28	2158	533	55	442
Darling, Bernard P., Shortsville, assignor to R. C. Willits, Macedon, N. Y. Coffee canister and mill	453,996	June 9	1237	322	55	1392
Darling, Edwin A., assignor of one-half to W. F. Draper, Hopedale, Mass. Circuit-closer for burglar-alarm	453,466	June 2	460	118	55	1235
Darling, John, Glasgow, Scotland, W. G. Blow, Cardiff, England, and J. Darling, Jr., Glasgow, Scotland. Needle-threader	457,474	Aug. 11	912	234	56	709
Darling, Joseph, Karns City, Pa. Pump	456,128	July 14	1297	341	56	257
Darling, Naaman L., assignor to Benicia Agricultural Works, Benicia, Cal. Traction-engine	451,648	May 5	312	76	55	638
Darling, Naaman L., assignor to Benicia Agricultural Works, Benicia, Cal. Steam gang-plow	454,206	June 16	1538	404 405	55	1458
Darling, Naaman L., Benicia, assignor of one-third to J. R. Dixon, Los Angeles, Cal. Harvester	458,335	Aug. 25	2307	563 564	56	992
Darling, Rolla R., Cleveland, Ohio. Filter	457,630	Aug. 11	1151	294	56	756
Darling, Samuel, Providence, R. I. Fastening for the doors of furnaces	456,403	July 21	1748	462	56	350
Darnell, Calvin F., Indianapolis, Ind. End or corner structure for wire fences	451,461	May 5	24	6	55	583
Darnell, Milton. (See Petro and Darnell.)						
Darr, Lizzie S., New York, N. Y. Postage-stamp-vending apparatus	446,434	Feb. 17	1538	378	54	830
Darr, Matthew D. (See Kassebaum and Darr.)						
Darrach, Samuel A., Newark, N. J. Combined bag and head-rest	453,926	June 9	1136	297	55	1372
Darrall, John, et al. (See Bell, George, assignor.)						
Darrell, Armistead M., Washington, D. C., assignor of one-half to T. Clark. Marking-brush	450,662	Apr. 21	1583	380	55	325
Darrow, Charles E., Kokomo, Ind. Nut for axle-spindles	451,390	Apr. 28	2714	674	55	550
Darrow, Mary A., New York, N. Y. Invalid-chair	450,835	Apr. 21	1849	450	55	374
Darst, Claude, Pomeroy, Ohio. Belt-stretcher	458,099	Aug. 18	1911	497	56	911
Dart, Edward M., Providence, R. I. Self-lubricating stop-cock	464,429	Dec. 1	645	159	57	1257
Dart, Edward M., Providence, R. I. Lubricating stop-cock	464,727	Dec. 8	1121	278	57	1357
Dart, Joseph, Brooklyn, N. Y. Yarn-hanking machine	464,430	Dec. 1	646	159 160	57	1258
Darwin, Overton. (See Hollingsworth and Darwin.)						
Dasher, Hiram D., Middletown, Pa. Metallic railway-tie	450,601	Apr. 14	1440	354	55	283
Danbenspeck, Henry S., Butler County, Pa. Washing-machine	450,721	Apr. 21	1665	401 402	55	340
Daudeteau, Louis M. R., Vannes, France. Cartridge-carrier	454,333	June 16	1721	449	55	1493
Daudeteau, Louis M. R., Vannes, France. Magazine-gun	458,824	Sept. 1	428	102 103 104	56	1147
Daudeteau, Louis M. R., Vannes, France. Cartridge-carrier or charger for repeating small-arms	458,825	Sept. 1	433	104	56	1148
Dauffenbach, Christian, Milwaukee, Wis. Mechanical switch for electric systems	457,110	Aug. 4	274	71	56	585

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Daugherty, James D., Kittanning, Pa. Type-writing machine.....	457,258	Aug. 4	522	{ 136 137 }	56	630
Danphinais, Alfred, assignor of one-half to A. Lalond, Hurley, Wis. Hitching device for animals.....	453,830	June 9	1014	264	55	1349
Daus, Felix F. (See Neuhaus and Daus.)						
Dauxdator, Charles F. (See Walp and Dauxdator.)						
Davenny, James E., Greenville, Pa. Ribbon-clasp.....	449,467	Mar. 31	3593	905	54	1633
Davenport, Frank B. (See Boswell, George G. F., assignor.)						
Davenport, Frank W., Providence, R. I. Ruling-pen cleaner.....	465,521	Dec. 22	2425	619	57	1626
Davenport, John J., Philadelphia, Pa. Brake-shoe.....	448,940	Mar. 24	2712	684	54	1660
Davenport, William H., Norwich, Conn. Breech-loading fire-arm.....	465,354	Dec. 15	2161	{ 553 554 }	57	1564
Davey, Henry, London, England. Game.....	450,883	Apr. 21	1926	472	55	389
Davey, William, and J. W. Chaney, Winfield, Kans. Draft-equalizer.....	455,312	July 7	23	6	56	7
David, Marcus. (See Zimmer, Henry, assignor.)						
David, Van R., Sandwich, Ill. Dental mallet.....	453,366	June 2	288	76	55	1201
Davidson, Alice B., et al., executrices. (See Davidson, Herman E.)						
Davidson, Charles, Guelph, Canada. Rope or cable conpling.....	463,443	Nov. 17	1948	508	57	945
Davidson, Charles O., Carrington, Mo., assignor to H. C. Thomas, Baltimore, Md. Cattle-guard.....	450,450	Apr. 14	1224	299	55	240
Davidson, Edith B., et al., executrices. (See Davidson, Herman E.)						
Davidson, Grant. (See Cookerly, Charles E., assignor.)						
Davidson, Henry J. (See Williams, Henry J., assignor.)						
Davidson, Herman. (See Von Brandis and Davidson.)						
Davidson, Herman E., deceased; A. B. and E. B. Davidson executrices, Northeast Harbor, Me. Juice-extractor.....	455,938	July 14	1028	269	56	205
Davidson, James T., Boston, Mass. Pocket lead-pencil holder.....	463,786	Nov. 24	2491	650	57	1057
Davidson, Joe R., et al. (See Shafer, Joshua S., assignor.)						
Davidson, John, Malden, Mass. Mowing-machine.....	451,081	Apr. 28	2159	533	55	442
Davidson, John H., Fairfax Court-House, assignor of one-half to T. T. Taylor, Dunn Loring, Va. Shutter-worker.....	457,306	Aug. 4	605	158	56	645
Davidson, John M., assignor to Armour, Marlin & Co., Allegheny, Pa. Eaves-trough hanger.....	465,166	Dec. 15	1851	469	57	1506
Davidson, John M., and W. H. Flender; said Flender assignor to said Davidson and G. W. Reep, Allegheny, Pa. Sheet-metal pipe.....	450,142	Apr. 14	731	183	55	149
Davidson, Mattie V. (See Davidson, Otis E., assignor.)						
Davidson, Otis E., assignor to M. V. Davidson, Nashville, Tenn. Corn-sheller.....	448,941	Mar. 24	2713	{ 684 685 }	54	1661
Davidson, Peter, St. Mary's, Ohio. Automatic shnt-off for engines.....	464,858	Dec. 8	1307	327	57	1394
Davidson Writing Machine Company. (See Payne, Halbert E., assignor.)						
Davidson Writing Machine Company. (See Prentice, George G., assignor.)						
Davidson Writing Machine Company. (See Yost, George W. N., assignor.)						
Davies, Alexander W. (See Gale, Cowles, and Davies.)						
Davies, Charles G., et al. (See Courtright, Edgar, assignor.)						
Davies, Edward, London, assignor of one-half to H. Foard-Harris, Brooke House Fleet, England. Apparatus for disintegrating spent hops.....	450,059	Apr. 7	604	{ 151 152 153 }	55	117
Davies, Henry, Petersham, New South Wales. Mechanism for working self-acting grabs.....	460,362	Sept. 29	2863	{ 714 715 716 }	56	1646
Davies, Isaac, Phoenixville, assignor of one-half to F. R. Phillips, Philadelphia, Pa. Machine for cleaning tin orterne plates.....	450,929	Apr. 21	1981	{ 486 487 }	55	400
Davies, John A. (See Barnes, Edward M., assignor.)						
Davies, John M., Florin, Cal. Device for packing fruits.....	464,150	Dec. 1	214	51	57	1177
Davies, John R., Woodlawn Park, Ill. Car-wheel.....	465,245	Dec. 15	1966	503	57	1529
Davies, Joseph J., et al. (See Horne, Chester, assignor.)						
Davies, Joshua, Dudley, county of Worcester, England. Show-stand.....	451,919	May 12	740	186	55	725
Davies, Thomas, Toronto, Canada. Railway-chair.....	454,834	Feb. 23	2530	651	55	1650
Davies, Thomas W., and G. M. Downey, Dallas, Tex. Shaft-tug.....	445,929	June 3	674	165	54	643
Davis, Albert R., Oneida, N. Y. Cannon.....	456,800	July 28	2408	634	56	483
Davis, Albert T. L. (See Pepper and Davis.)						
Davis, Albert T. L. (See Pepper, Davis, and Sanders.)						
Davis, Albert T. L., assignor to Pepper Manufacturing Company, Lake Village, N. H. Stopping mechanism for knitting machines, &c.....	457,307	Aug. 4	606	159	56	645
Davis, Albert T. L., assignor to Pepper Manufacturing Company, Lake Village, N. H. Circular-knitting machine.....	460,502	Sept. 29	3068	{ 770 771 }	56	1684
Davis, Alice H. (See Garland, Charles F., assignor.)						
Davis, Andrew J., Allegheny, Pa. Steam-generator.....	456,648	July 28	2153	{ 570 571 }	56	437
Davis, Asa, Baltimore, Md. Type-writing machine.....	465,591	Dec. 22	2546	649	57	1648
Davis, Canada D., Hartman, Ark. Door-securer.....	456,267	July 21	1526	405	56	309
Davis-Carter, Charles. (See Guenther, Karl F. W., assignor.)						
Davis, Charles C., Los Angeles, Cal. Portable burglar-alarm.....	452,597	May 19	1867	469	55	943
Davis, Charles C., Los Angeles, Cal. Portable burglar-alarm.....	454,033	June 16	1287	336	55	1409
Davis, Charles E., et al. (See Burton, Augustus G., assignor.)						
Davis, Charles E., Chicago, Ill. Detachable rosette.....	453,337	June 2	249	66	55	1195
Davis, Charles E., assignor, by mesne assignments, to Transcontinental Car Lock and Seal Company, Chicago, Ill. Seal-lock. (Reissue).....	11,161	May 5	699	176	55	711
Davis, Charles E., and C. Lewis, Jr., Neosho, Mo. Tongue-support.....	455,355	Dec. 15	2165	554	57	1564
Davis, Charles N., Cincinnati, Ohio. Wire-and-picket-fence-making machine.....	461,818	Oct. 27	2084	{ 514 515 }	57	421
Davis, Charles T., assignor to Brown & Sharpe Manufacturing Company, Providence, R. I. Attachment for grinding-machines.....	461,567	Oct. 20	1671	{ 409 410 }	57	335
Davis, Chester B. and E. H. Riddell, Chicago, Ill. Water-filter.....	450,222	Apr. 14	847	{ 212 213 214 }	55	171
Davis, Chester B. and E. H. Riddell, Chicago, Ill. Filter.....	450,223	Apr. 14	852	{ 213 214 215 }	55	172
Davis, Clarence L., assignor to B. Haskell, New York, N. Y. Machine for ornamenting wood or other compressible material.....	451,391	Apr. 28	2715	674	55	550
Davis, Clayton H. (See Cross and Davis.)						
Davis, Daniel, Elmira, N. Y. Curtain-hanger.....	458,019	Aug. 18	1794	468	56	887
Davis, Daniel J., Chicago, Ill. Curd grinder, worker, and salter.....	466,048	Dec. 29	3293	840	57	1802
Davis, Daniel J., Chicago, Ill. Refrigerating-room.....	466,049	Dec. 29	3294	841	57	1802
Davis, Daniel L. (See Thoeni, Martin, assignor.)						
Davis, David W., Detroit, Mich. Pocket-knife.....	455,610	July 7	507	132	56	98

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Davis, David W., Detroit, Mich. Corkscrew	455,826	July 14	872	228	56	175
Davis Edward, Redondo, Cal. Pliable-flange pile-casing	464,960	Dec. 15	1471	370	57	1436
Davis, Edward C., and T. Baldwin, London, England. Telescopic joint.....	445,440	Jan. 27	2314	{ 600 601	{ 54	478
Davis, Edwin S. (See Howard, William H., assignor.)						
Davis, Ella A. (See Cross, Freeman H., assignor.)						
Davis, Emery J. (See Huestis, Thomas B., assignor.)						
Davis, Ferdinand E., and O. Aberle, Chicago, Ill., assignors to S. Oppenheimer, New York, N. Y. Machine for cleaning intestines	462,809	Nov. 10	938	{ 244 245	{ 57	741
Davis, Francis M., Denver, Colo. Chill-mold for pulleys	444,606	Jan. 13	981	{ 254 255	{ 54	203
Davis, Frederick G. (See Davis, Samuel and F. G.)						
Davis & Furber Machine Company. (See Baldwin, Eben A., assignor.)						
Davis & Furber Machine Company. (See Wickers and Stone, assignors.)						
Davis & Furber Machine Company. (See Wright, Edward, assignor.)						
Davis & Galt. (See Davis, Junius H., assignor.)						
Davis, George. (See St. Legier and Davis.)						
Davis, George E., Swansea, Mass. Fire-extinguisher	463,725	Nov. 24	2415	633	57	1042
Davis, George F., Collingswood, N. J. Combined partitioned and box stall for stables	447,561	Mar. 3	479	117	54	1207
Davis, George H., assignor of one-half to S. H. Barlow, Lacona, N. Y. Crupper-fastening	446,380	Feb. 10	1436	353	54	798
Davis, George H., assignor of one-half to S. H. Barlow, Lacona, N. Y. Rein-holder	450,994	Apr. 21	2101	518	55	422
Davis, George M., Chicago, Ill. Indicating device for water-tanks	462,837	Nov. 10	985	255	57	750
Davis, George R. C., Manchester, N. H. Collapsible staging-bracket	464,243	Dec. 1	372	90	57	1204
Davis, George W., Memphis, Tenn. Gin-saw gummer and sharpener	458,124	Aug. 18	1946	506	56	918
Davis, George W., Memphis, Tenn. Grate attachment	464,930	Dec. 8	1405	354	57	1413
Davis, George W., assignor of one-half to T. H. Moore, Poplar Bluff, Mo. Ratchet hand-power	459,677	Sept. 15	1801	453	56	1429
Davis, Henry, and A. H. Stokes, Derby, England. Commutator for dynamo-electric generators and motors	453,858	June 9	1044	273	55	1355
Davis, Henry A., et al. (See Magney, Joseph P., assignor.)						
Davis, Henry T., New York, N. Y. Quilting-frame for sewing-machines	453,179	June 2	4	1	55	1149
Davis Hiram B., assignor of five-eighths to A. S. Whitaker and E. M. Griffith, Denver, Colo. Tug-fastener	463,775	Nov. 24	2478	647	57	1054
Davis, Homer S., Stillwater, Minn. Ore-washer	464,431	Dec. 1	630	160	57	1258
Davis, Ina C., Newark, and J. Brown, Kearney, assignors to Kerr Thread Company, Newark, N. J. Machine for printing peripheries of spools and other circular bodies	452,598	May 19	1869	470	55	943
Davis, Jephtha P., and G. B. Harwell, Mansfield, Ark. Combined bin and sifter	465,356	Dec. 15	2165	554	57	1564
Davis, Jesse R. (See Nash, Stout, and Davis.)						
Davis, John A., Buffalo, Mo. Flood-fence	446,852	Feb. 24	2190	545	54	969
Davis, John H., assignor of one-third to Y. Bickham, Findlay, Ohio. Regulator for electro-therapeutic apparatus	450,577	Apr. 14	1392	{ 343 344	{ 55	275
Davis, John R., Racine, Wis. Whiffletree-hook	445,804	Feb. 3	499	120	54	609
Davis, John R., Bluford, Ill. Swinging gate	461,999	Oct. 27	2366	586	57	476
Davis, John S., Cleveland, Ohio. Harvester-tongue	457,185	Aug. 4	387	{ 99 100	{ 56	607
Davis, John T., assignor of three-fourths to P. A. Campbell, A. Walrath, San Francisco, Cal., and M. Connell, Lynchburg, Va. Treating cocconut-husks	456,241	July 21	1491	.....	56	302
Davis, John T., assignor of one-half to C. J. Moffett, St. Louis, Mo. Type-writing machine	458,522	Aug. 25	2611	{ 635 636	{ 56	1049
Davis, John V., assignor to Automatic Electric Scale Company, Ashland, Ky. Automatic electric weighing-scale	449,468	Mar. 31	3593	905	54	1833
Davis, John W., Janesville, Wis. Shuttle-binder for looms	446,113	Feb. 10	963	242	54	711
Davis, John W., and J. B. Farrington, New York, N. Y. Electric motor	459,678	Sept. 15	1802	453	56	1430
Davis, Jonathan D., Bridgeport, Conn. Hinge	458,100	Aug. 18	1912	497	56	912
Davis, Joseph, San Francisco, Cal. Newspaper-cover	449,210	Mar. 31	3133	790	54	1749
Davis, Julia H. (See Davis, Theodore D., assignor.)						
Davis, Junius H., assignor to Davis & Galt, Philadelphia, Pa. Making handles for scissors, shears, &c.	453,548	June 2	578	147	55	1257
Davis, L. L., et al. (See Bliss, Henry S., assignor.)						
Davis, La Fayette L. (See Cunningham, Wilbur J., assignor.)						
Davis, Leonard D., Erie, Pa. Sectional steam-boiler	450,998	Sept. 22	2290	574	56	1529
Davis, Leonard D., Erie, Pa. Valve-gear for steam-engines	461,406	Oct. 13	1356	341	57	270
Davis, Maynard O., et al. (See Lovett, Eliphalet R., assignor.)						
Davis, Miles L., Lancaster, Pa. Furnace for burning garbage	462,035	Oct. 27	2420	600	57	486
Davis, Milton G., West Somerville, Mass., assignor, by mesne assignments, to Municipal Signal Company, Portland, Me. Signal-box	451,689	May 5	378	93	55	651
Davis-Moore Sewing Machine Company. (See Cummings, Henry H., assignor.)						
Davis-Moore Sewing Machine Company. (See Cutten, James H., assignor.)						
Davis, Nathan. (See Ziv, Jonas, assignor.)						
Davis, Robert, Modesto, Cal. Attachment for thrashers	465,357	Dec. 15	2166	{ 554 555	{ 57	1564
Davis, Robert C., and R. R. Brown, Columbus, Ohio. Aerial ventilator	446,813	Feb. 17	2117	526	54	946
Davis, Robert J., Chicago, Ill. Arm-support	459,134	Sept. 8	926	223	56	1253
Davis, Salome P., and J. H. Dicks, San José, Cal. Baby-carriage	455,909	July 14	985	257	56	197
Davis, Samuel and F. G., Las Vegas, N. Mex. Ter. Wool-washing apparatus	458,315	Aug. 25	2271	555	56	984
Davis, Solomon, New York, N. Y. Distance-instrument	456,404	July 21	1748	{ 462 463	{ 56	350
Davis, Spencer L., Chicago, Ill. Safety-platform for railway-cars	446,129	Feb. 10	1012	250	54	717
Davis, Stewart K., A. F. Stockley, and W. I. Barnett, Buena Vista, Colo. Mail-bag fastening	446,770	Feb. 17	2049	510	54	931
Davis, Taiton T., Marion, Kans. Rectal speculum	466,004	Dec. 29	3232	820	57	1786
Davis, Theodore D., assignor to J. H. Davis, Syracuse, N. Y. Knob attachment	461,975	Oct. 27	2332	578	57	469
Davis, Thomas A., Mount Holly, N. C. Attachment for warping-machines	452,127	May 12	1104	{ 281 282	{ 55	790
Davis, Thomas D. (See Fisher, Charles B., assignor.)						
Davis, Thomas S., Brooklyn, N. Y. Steam-engine	455,311	July 7	22	5, 6	56	7
Davis, W. I. (See Walsh, Dormer, assignor.)						
Davis, Wells R., assignor of one-half to E. A. Trenary, Alberta, Mo. Snap-hook	454,034	June 16	1288	336	55	1409
Davis, William, et al. (See Hoskins, Silas E., assignor.)						
Davis, William B., Newport, N. Y. Tanner's oil	449,437	Mar. 31	3539	.....	54	1823
Davis, William C., Denver, Colo. Brake for hoisting-drums	466,158	Dec. 29	3460	884	57	1835
Davis, William H., Evansburg, Ohio. Automatic switch for railways	461,495	Oct. 20	1554	381	57	313
Davis, William H., assignor of one-half to R. L. Adams, Chapel Hill, Tex. Combination-plow	448,414	Mar. 17	1884	473	54	1495

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Davis, William H., assignor of one-half to R. L. Adams, Chapel Hill, Tex. Corn-planter and fertilizer-distributor	455,682	July 7	615	{ 161 162 }	{ 56 }	119
Davis, William H., and R. P. Howard, La Crosse, Wis. Cultivator-tooth	465,358	Dec. 15	2168	555	57	1565
Davis, William W., Penn's Park, Pa. Car-coupling	453,382	June 2	310	81	55	1206
Davis, Winfield S., Florence, Mass. Bit-stock	443,989	Jan. 6	3	1	54	3
Davis, Zebulon, Cleveland, Ohio. Apparatus for vaporizing and feeding hydrocarbon	456,510	July 21	1921	508	56	383
Davison, Charles C., <i>et al.</i> (See Fongère, Angus, assignor.)						
Davison, Joseph C. (See McIlhenny and Davison.)						
Davison, Samuel. (See Willcock, Stephen, assignor.)						
Davisson, William W., Mineral Point, Wis. Checkrein for harness	444,975	Jan. 20	1615	413	54	331
Davnie, James, Hallock, Minn. Bag-holder	452,216	May 12	1249	316	55	818
Day, Charles, Sheffield, England. Gear for controlling the speed of pumping-engines	447,146	Feb. 24	2709	671	54	1063
Day, Charles, Sheffield, England. Governing-gear for the pumping-engines of hydraulic forging or other presses	447,147	Feb. 24	2711	672	54	1063
Day, Robert B., San Diego, Cal. Wave-motor	455,743	July 14	734	193	56	150
Daw, Albert W. and Z. W., Laurvig, Norway. Rock-drill	447,666	Mar. 3	627	{ 155 156 634 635 636 }	{ 54 }	1236
Daw, Albert W. and Z. W., Laurvig, Norway. Valve for rock-drills	456,801	July 28	2409	{ 634 635 636 }	{ 56 }	484
Daw, Harry H., Chicago, Ill. Heating apparatus	463,186	Nov. 17	1539	402	57	866
Daw, Zacharias W. (See Daw, Albert W. and Z. W.)						
Dawdy, Andrew J., Goshen, Ind. Support for photographic-printing frames	452,766	May 19	2140	532	55	995
Dawes, Alfred, Chelsea, Mass. Electric-light support	444,424	Jan. 13	697	182	54	146
Dawes, Charles K., Trenton, N. J. Machine for drilling iron	447,562	Mar. 3	480	118	54	1207
Dawes, John C., Kingston, assignor of one-half to W. A. Russell, Boston, Mass. Bottomless measure	457,498	Aug. 11	958	243	56	718
Dawson, Edward, Terre Haute, Ind. Screw-driver	456,300	July 21	1582	418	56	319
Dawson, James L., Tuscola, Ill. Indicator	445,271	Jan. 27	2082	537	54	430
Dawson, Thomas C. (See Gaffney and Dawson.)						
Dawson, William, Ogontz, Pa. Apparatus for raising bread	460,238	Sept. 29	2660	663	56	1608
Dawson, William M., St. Louis, Mo. Plastering compound	464,116	Dec. 1	164	57	57	1168
Day, Benjamin H., Jr., West Hoboken, N. J. Absorbent bottle-collar	447,635	Mar. 3	589	145	54	1229
Day, Charles T., assignor to himself and E. Spaeth, Newark, N. J. Skate	451,032	Apr. 28	2160	533	55	442
Day, Cornelius R., Blackstone, Mass. Spring-scale	465,246	Dec. 15	1968	503	57	1529
Day, Edwin T. (See Wastell and Day.)						
Day Elevated Railway Plant Company. (See Day, St. John V., assignor.)						
Day, George W., Haverhill, Mass., assignor, by mesne assignments, to Ball Turn Machine Company, of Maine. Manufacture of boots or shoes	463,947	Nov. 24	2755	715	57	1106
Day, George W., Haverhill, Mass., assignor, by mesne assignments, to Ball Turn Machine Company, of Maine. Machine for trimming the edge of the upper at the toe of a boot or shoe	463,948	Nov. 24	2756	715	57	1107
Day, George W., Haverhill, assignor to F. L. Washburn, Melrose, and R. H. Jones, Boston, Mass. Sole-trimming machine	463,949	Nov. 24	2759	715	57	1107
Day, Henry, assignor to J. Day, Fairview, N. J. Railway	464,455	Dec. 1	686	168	57	1265
Day, Henry K., Elyria, Ohio. House-door letter-box	460,117	Sept. 29	2479	619	56	1573
Day, James. (See Day, Henry, assignor.)						
Day, John H., Albany, N. Y. Process of and machine for spreading viscous substances	452,466	May 19	1672	419	55	905
Day, John Q., Red Cliff, Colo. Screw-driver	454,929	June 30	2721	694	55	1693
Day, John W., Baird, Tex. Harrow	448,506	Mar. 17	2023	506	54	1521
Day, Joseph, New Haven, Conn. Corset-clasp	459,562	Sept. 15	1609	404	56	1393
Day, Raymond H. (See Andrews and Day.)						
Day, St. John V., St. Louis, Mo. Armature for dynamos and electric motors	464,216	Dec. 1	330	80	57	1196
Day, St. John V., assignor to Day Elevated Railway Plant Company, Chicago, Ill. Elevated-railway plant	458,116	Aug. 18	1932	{ 502 503 }	{ 56 }	915
Dayton Antographic Register Company. (See Yoe, Philip, assignor.)						
Dayton, Charles A., Preston, Conn. Electric stop-motion	451,649	May 5	315	77	55	639
Dayton, George A. (See Sill, Joseph M., assignor.)						
Dayton, George H. (See Phillips and Dayton.)						
Dayton, Melville E. (See Hardy, Lewis W., assignor.)						
Dayton, William H., Torrington, Conn. Wire-swaging machine	460,566	Oct. 6	35	9	57	9
Dayton, William H., assignor to Excelsior Needle Company, Torrington, Conn. Machine for polishing needle-points	449,313	Mar. 31	3314	836	54	1781
De Atley, John W., Blue Springs, Mo. Coffee or tea pot	462,656	Nov. 3	677	172	57	682
De Barr, Milton, San José, Cal. Invalid's bathing appliance	445,327	Jan. 27	2152	558	54	446
De Berry, William G., Mount Gilead, assignor of one-half to C. C. and W. T. Wade, Wadeville, N. C. Fertilizer-distributor	448,135	Mar. 10	1397	357	54	1393
De Bord, Albert M. (See Bourne, Jane, assignor.)						
De Butts, John, near Centerville, Md. Wheel for corn-planters and markers	445,713	Feb. 3	323	86	54	576
De Camp, Alfred H., Boonton, N. J. Tramway-rail joint	450,614	Apr. 21	1469	361	55	296
De Camp, Alfred H., Boonton, N. J. Aerial tramway	460,567	Oct. 6	37	9	57	9
De Camp, Charles C., Durand, Mich. Track-gage	460,467	Sept. 29	3008	753	56	1674
De Canio, Felix. (See Pagliughi and De Canio.)						
De Celles, Ernest. (See Kirstein and De Celles.)						
De Clements, Eldersley D., Detroit, assignor of one-half to H. P. Glover, Ypsilanti, Mich. Metallic tie for railways	446,405	Feb. 10	1490	366	54	807
De Frehn, Charles H. and R. A., Mount Union, Pa. Chair-bottom	457,637	Aug. 11	1162	297	56	758
De Frehn, Robert A. (See De Frehn, Charles H. and R. A.)						
De Fries, John D., <i>et al.</i> (See Herrington, William S., assignor.)						
De Gaetano, Stephen, Long Island City, N. Y. Billiard-cushion	457,529	Aug. 11	997	255	56	726
De Good, Joseph L., assignor of one-half to L. A. Randall, Detroit, Mich. Musical instrument	445,978	Feb. 10	754	185	54	670
De Goller, Harry C., assignor of one-half to F. P. Ewing, Lone Elm, Kans. Boot-jack	453,737	June 9	880	228	55	1323
De Graffenried, William C., Jasper, Fla. Cultivator	454,036	June 16	1290	336	55	1409
De Hass, Thomas W., <i>et al.</i> (See Faris, Lafayette, assignor.)						
De Haven, Hugh. (See Holmgreen, Emil F., assignor.)						
De La Granja, Edward, <i>et al.</i> (See Hines, David, assignor.)						
De la Nux, Léon A. (See Bredo and De la Nux.)						
De la Roche, Charles, Paris, France, assignor of one-fourth to F. Irsch, New York, N. Y. Chemical retting and ungumming of textile fibers	446,983	Feb. 24	2412	.....	54	1009
De La Vergne Bottle and Seal Company. (See Clemens, Ernest V., assignor.)						
De La Vergne Bottle and Seal Company. (See Siebert, Alfred, assignor.)						
De Lang, Felix V., Louisville, Ky. Can-opener	459,224	Sept. 8	1065	259	56	1279

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De Long, Charles F., <i>et al.</i> (See Whiting, William S., assignor.)						
De Long, Frank E., <i>et al.</i> (See Whiting, William S., assignor.)						
De Long, Frank E., assignor to Richardson & De Long Brothers, Philadelphia, Pa. Garment-hook	462,472	Nov. 3	402	98	57	627
De Long, Frank E., assignor to A. A. C. Richardson, J. E. and I. De Long, Philadelphia, Pa. Garment-hook	462,473	Nov. 3	403	99	57	627
De Long, Ida, <i>et al.</i> (See De Long, Frank E., assignor.)						
De Long, Jane E., <i>et al.</i> (See De Long, Frank E., assignor.)						
De Long, Oscar A., Wichita, Kans., assignor to Commercial Envelope Company, Limited, of New York. Remailing sample envelope	458,117	Aug. 18	1936	503	56	916
De Loria, Louis, assignor of one-half to J. Bayorgeou and M. Rabillard, Minneapolis, Minn. Fireman's ladder	444,878	Jan. 20	1447	376	54	299
De Loria, George N., Chicago, Ill. Boneless-ham-stuffing machine	454,112	June 16	1395	365	55	1429
De Lyons, Thaddeus, Washington, D. C. Removable attachment for horseshoes	457,260	Aug. 4	527	138	56	630
De Mars, Joseph, assignor to De Mars Sash Lock Company, Albuquerque, New Mexico. Sash-fastener	463,494	Nov. 17	2019	529	57	959
De Mars Sash Lock Company. (See De Mars, Joseph, assignor.)						
De Mill, Peter E., Jr., Detroit, Mich. Apparatus for the manufacture of gas	447,506	Mar. 3	397	97	54	1192
De Neut, John H., assignor of one-half to Richmond & Seymour Manufacturing Company, Grand Rapids, Mich. Lavatory	457,262	Aug. 4	530	{ 138 139 }	{ 56 631 }	
De Pauw Company, W. C. (See Scheffold, Frank, assignor.)						
De Puy, Louis J., Phoenix, Ariz. Ter., assignor of one-half to R. A. Gray, Colusa, Cal. Safety-guard for cars	453,768	June 9	930	241	55	1332
De Quilfeldt, Charles, Amityville, N. Y. Trap shooting device	466,257	Dec. 29	3610	924	57	1862
De Roberts, Charles, assignor of one-half to F. E. Alexander Omaha, Nebr. Car-coupling	452,862	May 26	2283	573	55	1032
De Sloovere, Louis C., Salem, Mass. Fare-register	454,902	June 30	2652	680	55	1681
De Tamble, Peter. (See Kail, John L., assignor.)						
De Wilde, Prosper, and A. Reyckler, Brussels, Belgium. Making chlorine	463,767	Nov. 24	2469		57	1052
De Witt, Hardenburgh, Owasco, N. Y. Neck-yoke	446,665	Feb. 17	1883	468	54	897
De Wolfe, Edward R., New York, N. Y. Air-valve for inflatable wheel-tires	460,714	Oct. 6	295	72	57	58
De Wolfe, Edward R., assignor to G. R. Bidwell, New York, N. Y. Cyclometer	447,540	Mar. 3	450	110	54	1202
De Wolfe, Edward R., assignor to himself and G. R. Bidwell, New York, N. Y. Velocipede-saddle	455,014	June 30	2876	731	55	1724
De Wolfe, Edward R., assignor to himself and G. R. Bidwell, New York, N. Y. Ball-bearing for cyclometers	458,710	Sept. 1	250	59	56	1113
Deacon, Samuel, Lynn, Mass., and M. J. Wightman, Hartford, Conn., assignors to Thomson-Houston Electric Company, of Connecticut. Socket for incandescent lamps	451,656	May 5	325	79	55	640
Deacon, Sidney R., Electric, Cal. Weather-strip	465,735	Dec. 22	2788	712	57	1695
Deakin, Thomas, Eccles, England. Valve-gear for regulating the speed of motors	464,661	Dec. 8	1003	{ 250 251 }	{ 57 1337 }	
Deal, Alonzo C., Glenwood, W. Va. Nut-lock	457,772	Aug. 18	1380	337	56	810
Deau, Albert H., Bridgeport, Conn. Magazine-holder for cartridges	466,298	Dec. 29	3679	940	57	1875
Dean, Francis W., Cambridge, Mass. Reheater for compound engines	457,078	Aug. 4	232	59	56	577
Dean, Francis W., Cambridge, Mass. Compound engine	459,779	Sept. 22	1958	494	56	1466
Dean, George R., Mayville, N. Y. Siding for houses	464,172	Dec. 1	248	61	57	1182
Dean, Kate M., Memphis, Tenn. Baking or cooking vessel	463,492	Nov. 17	2017	529	57	959
Dean, James H., assignor to B. D. Southard, Minneapolis, Minn., and W. Perkins, Armada, Mich. Electric switch-box	449,362	Mar. 31	3408	857	54	1797
Dean, John L., Winterset, Iowa. Hoisting-machine	450,143	Apr. 14	732	184	55	149
Dean, Seward A., Buffalo, Minn. Type-writing machine	463,968	Nov. 24	2785	723	57	1112
Dean, William R., and W. H. Barnett, Ottawa, Kans.; said Barnett assignor of one-half to said Dean. Tag-fastener	445,441	Jan. 27	2315	601	54	478
Dear, Joseph A., Jersey City, N. J. Feeding paper to printing-presses, folding-machines, &c.	452,024	May 12	900	231	55	756
Dear, Joseph A., Jersey City, N. J. Machine for cutting sheets from webs of paper	452,025	May 12	902	231	55	757
Dear, Somerville. (See Lawson and Dear.)						
Dearborn, Gilbert K. (See Folger and Dearborn.)						
Dearborn, Gilbert K., Somerville, assignor to Boston Sanitary Specialty Co., West Somerville, Mass. Lever-support for water-closet tanks	465,839	Dec. 29	2921	748	57	1731
Dearth, William L., Frankfort, Ind. Washing-machine	448,134	Mar. 10	1396	356	54	1393
Debarle, Louis, Paris, France. Floating dam	464,350	Dec. 1	543	132	57	1237
Debatin, Michael. (See Somerlad, Philip W., assignor.)						
Decarie, Felix L., and P. Lord, assignors to said Decarie and J. Lee, Montreal, Canada. Combined pipe-coupling and stop-valve	464,620	Dec. 8	939	232	57	1324
Decatur Leader Manufacturing Company. (See Brown, Davis, assignor.)						
Deck, Henry. (See Brann and Deck.)						
Decker, Clara L. (See Decker and Goebel, assignors.)						
Decker, Earle H., assignor to A. J. Reach, Philadelphia, Pa. Catcher's glove	447,233	Feb. 24	2862	710	54	1093
Decker, Earle H., assignor to A. J. Reach, Philadelphia, Pa. Catcher's glove	450,366	Apr. 14	1102	270	55	217
Decker, Harison, Horseheads, N. Y. Game apparatus	463,271	Nov. 17	1676	438	57	893
Decker, Joel C., Laboratory, Pa. Oil for general painting	454,035	June 16	1289		55	1409
Decker, John A., and J. Goebel, Berlin Falls, N. H.; said Decker assignor to C. L. Decker. Apparatus for regulating the consistency of wood pulp	449,251	Mar. 31	3200	{ 806 807 }	{ 54 1762 }	
Decker, Peter, Norwalk, Conn. Insulator for marine condensers	454,717	June 23	2340	601	55	1616
Decker, Thomas O., Chicago, Ill. Velocipede	463,302	Nov. 17	1719	449	57	901
Deckert, Josef. (See Kretschmann, Michael, assignor.)						
Decœur, Alexandre, Bendlikon, near Zurich, Switzerland. Sounding toy	457,259	Aug. 4	527	138	56	630
Decouffé, Anatole E., Paris, France. Tube-carriage for cigarette-machines	456,192	July 21	1405	373	56	287
Dedel, Louis, New Orleans, La. Weight-power	455,662	July 7	591	155	56	114
Dederick, Ezra, Milwaukee, Wis. Street-car locomotive	461,466	Oct. 20	1457	366	57	296
Dederick, Ezra, Milwaukee, Wis. Hook	464,473	Dec. 1	714	174	57	1271
Dederick, Levi, Albany, N. Y. Extension fire-ladder	444,820	Jan. 20	1315	{ 341 342 }	{ 54 274 }	
Dederick, Peter K., Loudonville, N. Y. Baling-press	457,631	Aug. 11	1152	294	56	756
Dederick, Peter K., Loudonville, N. Y. Baling-press and method of baling	457,632	Aug. 11	1153	295	56	757
Dederick, Peter K., Loudonville, N. Y. Baling-press	457,633	Aug. 11	1156	{ 295 296 }	{ 56 757 }	
Dederick, Peter K., Loudonville, N. Y. Incased bale of cotton or like material	457,634	Aug. 11	1158	296	56	757
Dederick, Peter K., Loudonville, N. Y. Baling-press	457,635	Aug. 11	1158	{ 296 297 }	{ 56 757 }	
Dederick, Peter K., Loudonville, N. Y. Baling-press	457,636	Aug. 11	1161	297	56	758
Dee, Andrew G., Westbrook, Conn. Stove	456,357	July 21	1669	440	56	336
Dee, Thomas, Concord, N. H. Car-coupling	453,549	June 2	580	148	55	1357

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Deeds, John B., assignor of one-half to F. J. Biel, Terre Haute, Ind. Piston meter	449,617	Mar. 31	3837	960	54	1878
Deemer, Selden S., Chester, Pa. Nail or spike	450,861	Apr. 21	1892	462	55	382
Deen, John B., Louisville, Ky. Automatic fire-alarm	445,930	Feb. 3	675	165	54	644
Deere & Company. (See Moore, Gilpin, assignor.)						
Deere & Company. (See Moore and Pope, assignors.)						
Deering & Company, William. (See Rice, George L., assignor.)						
Deering & Company, William. (See Williams, Farmer R., assignor.)						
Deering, Mark L., Cleveland, Ohio. Machine for molding pulp	455,097	June 30	3022	{ 768 769 364 365 }	{ 55 57 }	1752 834
Dees, Mark A., Moss Point, Miss. Machine for laying and nailing shingles	463,106	Nov. 10	1407			
Deeves, John F., assignor to New Orleans Manufacturing Company, New Orleans, La. Foldable mail-box	452,071	May 12	1005	254	55	772
Defiance Machine Works. (See Seymour, Charles, assignor.)						
Degelleke, James, assignor of one-half to W. Degelleke, Jr., Sodus, N. Y. Clothes-drier ..	446,853	Feb. 24	2191	546	54	969
Degelleke, William, Jr. (See Degelleke, James, assignor.)						
Degenhardt, Frederick E., Chicago, Ill. Electric-railway appliance	457,836	Aug. 18	1482	{ 386 387 }	{ 56 }	829
Degenhardt, Frederick E., Chicago, Ill. Conduit for electric railways	458,619	Sept. 1	111	25	56	1087
Degenhardt, Frederick E., Chicago, Ill. Electric trolley or contact wheel	458,620	Sept. 1	114	25	56	1088
Degenhardt, Frederick E., Chicago, Ill., assignor to Standard Underground Cable Company, Pittsburg, Pa. Electric conductor	458,316	Aug. 25	2273	555	56	985
Degenhardt, Frederick E., Chicago, Ill., assignor to Standard Underground Cable Company, Pittsburg, Pa. Electric conductor	463,107	Nov. 10	1414	365	57	835
Dégremont, Benjamin. (See Schloesing and Dégremont.)						
Deimel, Gustave, Hancock, Mich. Game-counter	453,078	May 26	2648	668	55	1102
Deimel, Menning A., Herkimer, N. Y. Bed	450,737	Apr. 21	1683	407	55	344
Deiner, Catharine, Lebanon, Pa. Rolling-pin	448,476	Mar. 17	1980	497	54	1513
Deisher, Alfred, Fleetwood, Pa. Preserving eggs	445,164	Jan. 27	1915	494	54	398
Deissler, Peter and W., Philadelphia, Pa. Ventilating-sash	459,834	Sept. 22	2048	{ 514 515 }	{ 56 }	1484
Deissler, Peter and W., Philadelphia, Pa. Meat-cutter	464,184	Dec. 1	268	66, 67	57	1186
Deissler, William. (See Deissler, Peter and W.)						
Deitrick, John, Acasto, Mo. Thill-coupling	459,074	Sept. 8	827	200	56	1233
Dejonne, Max E., Stapleton, N. Y. Anti-corrosive and anti-fouling compound	457,342	Aug. 11	704		56	669
Dejulio, John, Batavia, N. Y. Clock-case	458,445	Aug. 25	2484	604	56	1024
Dekum, Frank, trustee, <i>et al.</i> (See Low, Philip M., assignor.)						
Del Valle, Eliseo, Brooklyn, N. Y. Toy	447,284	Feb. 24	2943	731	54	1111
Dela Mar, Joseph, Poughkeepsie, assignor of one-half to F. Bostwick, Pine Plains, N. Y. Cigar-bunching machine	461,072	Oct. 13	812	{ 207 208 209 }	{ 57 }	163
Delafor, Maurice, assignor to Jacob Frères & Co., Paris, France. Conduit for electric cables	456,376	July 21	1713	454	56	344
Delahanty, Joseph P., West Pittston, Pa. Dyeing-machine	446,854	Feb. 24	2192	546	54	969
Delain, William, Earlham, Iowa. Tension device for wire-fence machines	462,303	Nov. 3	138	34	57	577
Delamare-Deboutville, Edouard, and L. Malandin, Fontaine-le-Bonrg, France. Means for governing or regulating the action of gas or other like explosive engines	448,136	Mar. 10	1399	357	54	1393
Delamater, Almond, Meadville, Pa. Thill-support	453,438	June 2	417	108	55	1226
Delane, Anson W., San Diego, assignor of one-half to A. H. Judson, J. H. Burks, and A. G. Hinckley, Los Angeles, Cal. Faucet	464,276	Dec. 1	434	103	57	1217
Delaney, John T. (See McElroy, Joseph F., assignor.)						
Delaney, Richard R., Charleston, W. Va. Roofing-seamer	455,177	June 30	3170	803	55	1780
Delangie, Joseph and P., Newark, N. J. Forge	456,232	July 21	1473	392	56	298
Delangie, Peter. (See Delangie, Joseph and P.)						
Delano, Charles H. (See Richards, Percival D., assignor.)						
Delano, William J. (See Wilson and Delano.)						
Delany, James H., South Orange, N. J., assignor to Edison General Electric Company, New York, N. Y. Coupler for electric wires	461,568	Oct. 20	1673	410	57	335
Delany, Patrick B., New York, N. Y. Means for communicating information	450,615	Apr. 21	1470	361	55	297
Delarue, Joseph. (See Westman and Delarue.)						
Delaware Hard Fibre Company. (See Dewes and Frist, assignors.)						
Delaware Hard Fibre Company. (See Frist, Robert P., assignor.) (Reissue.)						
Delee, James, assignor of one-half to J. O'Connor, Troy, N. Y. Beer-faucet	452,695	May 19	2021	505	55	973
Delehanty, William E., Albany, N. Y. Trap for water-basins, &c	462,304	Nov. 3	139	34	57	577
Delehanty, William E., Albany, N. Y. Trap for bath-tubs, &c	462,305	Nov. 3	140	34, 35	57	577
Delmage, Edgar C., Fort Worth, assignor of two-thirds to F. C. Zanetti, Bryan, Tex. Pipe or cigar holder	456,943	Aug. 4	34	7	56	539
Delisle, Charles H., <i>et al.</i> (See Wood, William G., assignor.)						
Dellenbangh, Frederick S., Mount Vernon, N. Y. Lamp	450,508	Apr. 14	1307	{ 320 321 }	{ 55 }	258
Dellieres, Louis, and W. H. Romick, Kansas City, Kans.; said Romick assignor of one-half to said Dellieres. Car-door	443,990	Jan. 6	4	1	54	3
Dellinger, John, assignor to H. C. Albro, Buffalo, N. Y. Ventilator-cap	445,522	Jan. 27	2438	635	54	500
Dellone, August F., Baltimore, Md. Feed-hopper	463,493	Nov. 17	2018	529	57	959
Dellwik, Carl, Rogers Park, Ill. Tinting incandescents	450,960	Apr. 21	2048		55	413
Dellwik, Carl, Rogers Park, Ill. Treating incandescents	450,961	Apr. 21	2049		55	413
Delort, Elie T. H. (See Baudouin and Delort.)						
Delplace, Emile and J., Aubervilliers, France. Apparatus for making sulphuric acid	446,060	Feb. 10	901	219	54	695
Delplace, Jules. (See Delplace, Emile and J.)						
Delrue, Charles, Brussels, Belgium. Machine for soaping and polishing glass	460,632	Oct. 6	160	40	57	34
Delsarte Corset Company. (See Swartwout, Emma J., assignor.)						
Delvalle, Jules, Foster, La. Combined hoe and rake handle	463,108	Nov. 10	1415	365	57	835
Delventhal, John W., <i>et al.</i> (See Hoss, Henry W., assignor.)						
Demarest, Benjamin W. (See Ayers and Demarest.)						
Demarest, David C. (See Tulloch, James, assignor.)						
Dement, Genevieve, Chicago, Ill. Manicure implement	466,076	Dec. 29	3329	850	57	1809
Demers, Dominique, Holton, Wis. Colter-clearer	449,669	Apr. 7	36	9	55	9
Demers, Henry J., North Adams, Mass. Hame-tug	446,733	Feb. 17	1998	498	54	920
Dening, Charles G., Woodstock, N. Y., assignor to Consolidated Safety Pin Company, Bloomfield, N. J. Safety-pin	457,261	Aug. 4	529	138	56	631
Dening, Edward, Brooklyn, assignor of two-thirds to A. Kaufmann and I. Stern, New York, N. Y. Automatic safety electric system for locomotives	452,871	May 26	2296	576	55	1034
Dening, Edward, Brooklyn, assignor of two-thirds to A. Kaufmann and I. Stern, New York, N. Y. Automatic safety electric system for railways	452,872	May 26	2297	{ 577 578 }	{ 55 }	1035

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Deming, Edward, Brooklyn, assignor of two-thirds to A. Kaufmann and I. Stern, New York, N. Y. Automatic electric safety system for railway-switches and draw-bridges.	432,873	May 26	2299	578 579 580	55	1035
Deming, Edward, Brooklyn, assignor of two-thirds to A. Kaufmann and I. Stern, New York, N. Y. Automatic electric safety system for railway-crossings.	432,874	May 26	2301	580 581 582	55	1035
Demorest, Albert F., Muscatine, Iowa. Post-office box and pigeon-hole.	461,324	Oct. 13	1204	307	57	241
Demuth & Co., William. (See Thürfelder, Hermann, assignor.)						
Demuth & Co., William. (See Walwyk, Ernest, assignor.)						
Deneker, Ferdinand D., and F. Erhardt, assignors to Taxameter-Fabrik Westendarp & Pieper, Hamburg, Germany. Fare-registering apparatus.	450,602	Apr. 14	1441	354	55	283
Denham, Richard F. (See Nye, Denham, and Knudson.)						
Denison, Charles H. (See Barritt, Franklin, assignor.)						
Denison, James, Washington, D. C. Device for teaching arithmetic.	452,302	May 12	1376	342	55	842
Deniston, Thomas B., Peru, Ind. Throat-piece for scroll and other saws.	461,325	Oct. 13	1205	307	57	241
Denmead, David T. (See Harmon, Lois, assignor.)						
Denn, Charles, assignor to Globe Machine Works, Philadelphia, Pa. Cut-marker and stop-motion for warping-machines.	450,509	Apr. 14	1309	321 322	55	258
Denn, William A., Philadelphia, Pa. Machine for linking and double linking warps.	460,098	Sept. 22	2446	612	56	1559
Dennau, Peter, Sr., Montague, Mich. Vehicle-wheel.	450,144	Apr. 14	733	184	55	149
Denne, Mark C., Eastbourne, and T. J. Denne, Hemel-Hempstead, England. Shoe-sewing machine.	454,718	June 23	2341	601 602	55	1616
Denne, Thomas J. (See Denne, Mark C. and T. J.)						
Dennes, Donald, Deadwood, S. D. Combined chlorinating and filtering vessel.	465,654	Dec. 22	2641	674	57	1666
Dennes, Donald, Denver, Colo., assignor of one-half to R. H. Thorburn, Chicago, Ill. Leaching-vat for separating precious metals from their ores.	463,120	Nov. 10	1435	371	57	839
Denney, Harmer, Brooklyn, N. Y. Tube.	444,233	Jan. 6	412	102	54	81
Denney, Harmer, Brooklyn, N. Y. Machine for making paper tubing.	445,135	Jan. 20	1855	480 481	54	378
Denney, Harmer, Brooklyn, N. Y. Making paper tubing.	446,663	Feb. 17	1882	467	54	897
Denney, Harmer, Brooklyn, N. Y. Clutch.	446,664	Feb. 17	1882	468	54	897
Denney, Harmer, Brooklyn, N. Y. Paste-pot.	449,670	Apr. 7	37	9	55	9
Denney, Harmer, assignor to Interior Conduit and Insulation Company, New York, N. Y. Machine for making tubing from paper strips.	444,950	Jan. 20	1575	404 405	54	323
Denney, Samuel L., Chicago, Ill., assignor of one-half to H. Kirkwood, Minneapolis, Minn. Car-axle.	448,639	Mar. 24	2247	564	54	1571
Denney, Samuel L., Chicago, Ill., assignor of one-half to H. Kirkwood, Minneapolis, Minn. Car-axle.	448,640	Mar. 24	2248	564	54	1571
Denney, William H., Lancaster, Pa. Spool-holder.	461,701	Oct. 20	1891	468	57	376
Dennis, George A., and R. Evans, Mitchell, S. D. Clothes-line reel.	462,818	Nov. 10	951	248	57	744
Dennis, John D., et al. (See Leeman, Horace E., assignor.)						
Dennis, Joseph, W. S. Metcalfe, and J. A. Sherman, Worcester, Mass. Envelope-machine.	458,691	Sept. 1	224	53	56	1108
Dennis, Joseph, W. S. Metcalfe, and J. A. Sherman, assignors to Whitcomb Envelope Company, Worcester, Mass. Drier for envelope-machines.	462,208	Oct. 27	2689	676	57	537
Dennis, Joseph, W. S. Metcalfe, and J. A. Sherman, assignors to Whitcomb Envelope Company, Worcester, Mass. Gunning mechanism for envelope-machines.	462,209	Oct. 27	2690	677	57	537
Dennis, Joseph, W. S. Metcalfe, and J. A. Sherman, assignors to Whitcomb Envelope Company, Worcester, Mass. Envelope-machine.	462,210	Oct. 27	2692	677 678 679	57	537
Dennis, Joseph, W. S. Metcalfe, and J. A. Sherman, assignors to Whitcomb Envelope Company, Worcester, Mass. Machine for making envelopes.	463,399	Nov. 17	1892	493	57	933
Dennis, Thomas J., Newark, N. J. Shade-roller bracket.	446,640	Feb. 17	1850	459	54	891
Dennis, William B. (See Stilwell, Henry C., assignor.)						
Dennison, Edwin B., Pine Grove, Cal. Fluid-pressure brake.	458,101	Aug. 18	1913	497	56	912
Dennison, William E. (See Edwards, Granville M., assignor.)						
Dennison, William H., Hinsdale, Ill. Egg-boater.	454,165	June 16	1477	388	55	1446
Denny, Lewis, assignor of one-half to N. Graybill, Advance, Ind. Hoe.	444,393	Jan. 6	644	167	54	126
Dennys, Nicholas B., London, England. Anti-fouling paint.	444,665	Jan. 13	1066		54	218
Denslow, William H., Ulster, Pa. Combined hot-air, steam, and hot-water heater.	446,163	Feb. 10	1083	266	54	727
Denslow, William H., Ulster, Pa. Combined steam and hot-air heater.	459,395	Sept. 15	1343	336	56	1343
Densmore, Amos. (See Barron, Walter J., assignor.)						
Densmore, Amos. (See Merritt, Charles E., assignor.)						
Densmore, Amos, New York, N. Y. Method of and means for forming screw-threads on tubular articles.	463,444	Nov. 17	1949	508	57	945
Densmore, Amos, New York, N. Y. Method of and means for producing screw-threaded bolts or screws.	463,445	Nov. 17	1950	508 509	57	945
Densmore, Amos, New York, N. Y. Type-writing machine.	464,752	Dec. 8	1156	287	57	1363
Densmore, Edwin, Caronado, Cal. Veneer-cutting machine.	446,585	Feb. 17	1767	436	54	876
Denton, Alonzo, et al. (See Gillmore, Harmon, assignor.)						
Denton, Jaret W., Henderson, Ky. Scraping and grading machine.	448,415	Mar. 17	1885	473 474	54	1495
Dény, Charles E. A., Paris, France. Lock.	448,912	Mar. 24	2675	753	54	1653
Denzer, Albert, New York, N. Y. Hat conformator and stretcher.	456,286	July 21	1559	412	56	315
Depp, Otis J., St. Louis, Mo. Electric contact.	449,348	Mar. 31	3375	851	54	1791
Derby Silver Company. (See Berry, Henry, assignor.)						
Derby, Thomas N., Round Lake, N. Y. Foot-rest.	450,557	July 28	2003	529	56	407
Dermigny, Paul L., New York, N. Y. Cooler and freezer.	455,663	July 7	592	155	56	115
Dermigny, Paul L., New York, N. Y. Cooking apparatus.	463,495	Nov. 17	2020	529	57	959
Deruell, Herman F., Athens, N. Y. Sleigh-truck.	464,818	Dec. 8	1250	313	57	1382
Derouin, Alfred, Gatineau Point, Canada. Wood-turning machine.	453,965	June 9	1187	310	55	1383
Derosse, Louis T. (See Gaul, William F., assignor.)						
Des Brisay, James, New York, N. Y. Electric switch.	454,995	June 30	2848	724	55	1718
Desant, William F. Z., New York, N. Y. Electric cash indicator and recorder.	449,108	Mar. 31	2972	751	54	1720
Desant, William F. Z., New York, N. Y. Electrical railway signaling apparatus.	460,524	Sept. 29	3114	779	56	1695
Desant, William F. Z., New York, N. Y. Electric railway-signal.	460,525	Sept. 29	3116	779	56	1696
Desant, William F. Z., New York, N. Y. Electric connector.	465,430	Dec. 15	2269	582	57	1586
Descamps, Edouard, assignor of one-half to L. Lombard, Utica, N. Y. Car-replacer.	448,137	Mar. 10	1401	358	54	1394
Descamps, Gaston, Havana, Cuba, assignor of one-half to G. Descamps, New Orleans, La. Apparatus for manufacturing alcohol from sugar-cane.	451,679	May 5	359	88, 89	55	647
Descamps, Georges. (See Descamps, Gaston, assignor.)						
Deshayes, Adolphe V., Paris, France. Embroidering-machine.	462,858	Nov. 10	1017	262 263	57	757
Deshler, Charles, New Brunswick, N. J. Radiometer.	454,719	June 23	2343	602	55	1617
Desmond, Dennis G. (See Patterson and Desmond.)						
Desmond, John, Bridgeport, Conn., assignor to Hayden & Derby Manufacturing Company, New York, N. Y. Steam-injector.	445,831	Feb. 3	532	129	54	615

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Desmond, John, Bridgeport, Conn., assignor to Hayden & Derby Manufacturing Company, New York, N. Y. Steam-injector	464,339	Dec. 1	522	127	57	1233
Desoe, Edward G., West Springfield, Mass. Brake for railway-cars	464,753	Dec. 8	1157	288	57	1364
Desroziers, Edmond, Paris, France. Dynamo-electric machine	459,610	Sept. 15	1684	421 422 423 424	56	1407
Dessoir, Julius, Dallas, Tex. Shoe-fastening	459,270	Sept. 8	1133	277	56	1293
Detar, Lewis, and L. D. Munshower, Sheloceta, Pa. Screening-machine	462,810	Nov. 10	940	245	57	742
Detharding, George W. (See Smith, Stephen R., assignor.)						
Detlef, Julius, Grand Mound, Iowa. Windmill-tower	456,193	July 21	1407	373	56	287
Detrich, Eoline, and W. J. Walker, St. Louis, Mo. Wash-boiler	448,507	Mar. 17	2024	506	54	1521
Detrick, Jacob S., Baltimore, Md. Sheet-metal-drawing press	462,628	Nov. 3	640	161 162	57	674
Detroit Can Company. (See Edgar, Malcolm W., assignor.)						
Detroit Electrical Works. (See Rao, Frank B., assignor.)						
Detroit Motor Company. (See Blades, Harry H., assignor.)						
Detwiler, Alfred E., assignor to Milwaukee Gas Stove Company, Milwaukee, Wis. Gas oven or kiln	464,761	Dec. 8	1170	291	57	1366
Detwiler, Joseph R. (See Chine and Detwiler.)						
Deuscher, Henry P., and F. J. Becker, assignors to H. P. Deuscher Manufacturing Company, Hamilton, Ohio. Fertilizer-distributor	444,394	Jan. 6	644	168	54	126
Deuscher Manufacturing Company, H. P. (See Deuscher and Becker, assignors.)						
Devall, William J., Pittsfield, Mass. Trimming mechanism for sewing-machines	454,010	June 9	1252	326	55	1396
Devenport, Arthur K., assignor of one-half to S. Heyser & Sons, Jackson, Mich. Sandpapering-machine	445,749	Feb. 3	385	98	54	589
Devereux, Arthur F., Cincinnati, Ohio. Valve for steam-engines	460,200	Sept. 29	2609	651	56	1597
Dévine, Antoine F., and J. P. Durand, La Cour-du-Pin, France. Weft stop-motion for looms	449,283	Mar. 31	3248	822 823 408 409	54	1770
Dévine, Antoine F., and J. P. Durand, Lyons, France. Shedding mechanism for looms	452,451	May 19	1635		55	900
Devine, H. S. (See Devine, James J., assignor.)						
Devine, James J., Clifton Heights, assignor of one-half to H. S. Devine, Chestnut Hill, Pa. Trousers	455,920	July 14	1002	260	56	201
Devinney, Caleb N., and S. Hafner, Philadelphia, Pa. Mechanism for operating automatically engine-tender scoops	463,109	Nov. 10	1416	366	57	835
Devlin Automatic Car Coupling Company. (See Devlin, James C., assignor.)						
Devlin, James C., assignor to Devlin Automatic Car Coupling Company, Hernando, Miss. Car-coupling	465,556	Dec. 22	2490	636	57	1637
Devney, Peter, Boston, Mass. Car-coupling	448,942	Mar. 24	2714	685	54	1661
Devoe, Benjamin G., Lima, Ohio. Hydrocarbon-burner	445,692	Feb. 3	291	77	54	570
Devoll, Andrew J., assignor to Woods, Sherwood & Co., Lowell, Mass. Adjustable strainer	462,076	Oct. 27	2474	614	57	496
Devonshire, Easton, assignor to Revolving Purifier Company, Limited, London, England. Apparatus for purifying water	458,887	Sept. 1	535	130	56	1167
Devonshire, Easton, assignor to Revolving Purifier Company, Limited, London, England. Water-purifier	458,946	Sept. 1	617	152	56	1185
Devonshire, Easton, assignor to Revolving Purifier Company, Limited, London, England. Water-purifier	462,537	Nov. 3	499	122	57	646
Devore, James K., assignor of one-half to R. L. Braden, Jewett, Ohio. Chimney-platform	458,416	Aug. 25	2440	594	56	1017
Devore, Levi M., et al. (See Redlinger, Michael, assignor.)						
Devore, Levi M., Freeport, Ill. Curry-comb	445,165	Jan. 27	1915	494	54	398
Devore, Levi M., Freeport, Ill. Handle	448,477	Mar. 17	1981	497	54	1513
Devore, Levi M., Freeport, Ill. Key-ring	461,326	Oct. 13	1207	307	57	241
Devore, Morris H., assignor of two-thirds to P. G. Fisher and T. F. Rider, Birmingham, Ala. Journal-bearing for railway-axes	449,109	Mar. 31	2975	752	54	1720
Dewald, Edward G., Dayton, Ohio. Roller-mill	447,745	Mar. 10	795	198	54	1276
Dewes, Abednego, Brooklyn, N. Y., and R. P. Frist, assignors to Delaware Hard Fibre Company, Wilmington, Del. Washer-cutter	465,840	Dec. 29	2922	748	57	1731
Dewey, Adelbert M., et al. (See Schofield, Andrew B., assignor.)						
Dewey, Andrew G., Carlyle, Ill. Harrow	450,060	Apr. 7	605	152	55	117
Dewey Corporation. (See Dewey, Mark W., assignor.)						
Dewey, Henry E., assignor to himself and J. H. Johnson, South Haven, Mich. Bridge-gate	447,636	Mar. 3	590	146	54	1229
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric soldering and cementing cans	445,770	Feb. 3	422	105 106	54	595
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Apparatus for soldering and cementing cans by electricity	445,771	Feb. 3	427	106	54	596
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric fire-engine	446,703	Feb. 17	1946	485 486	54	909
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric-welding apparatus	447,104	Feb. 24	2610	649	54	1046
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric heating apparatus	448,879	Mar. 24	2626	660	54	1643
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric heating apparatus	449,404	Mar. 31	3479	876	54	1811
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. System for electrically supplying hot water for consumption and heating purposes	451,239	Apr. 28	2494	615	55	507
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Method of and apparatus for electrically supplying hot water for consumption and heating purposes	451,240	Apr. 28	2497	615	55	508
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric railway	452,099	May 12	1057	267 268	55	781
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric fire-engine	464,244	Dec. 1	373	91	57	1204
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric hose-carriage	464,245	Dec. 1	376	91	57	1205
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electrically-propelled vehicle	464,246	Dec. 1	378	91	57	1206
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electric heating apparatus	464,247	Dec. 1	381	92	57	1206
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Electrically-propelled vehicle	464,248	Dec. 1	384	92	57	1207
Dewey, Mark W., assignor to Dewey Corporation, Syracuse, N. Y. Converter system for electric railways	465,359	Dec. 15	2169	555	57	1565
Dewhurst, G. & R. (See Duxbury, John, assignor.)						
Dexter, Avelyn I., Whitewater, Wis. Refrigerator	459,037	Sept. 8	773	188	56	1223
Dexter, Himan C., New York, N. Y. Insect-catcher	454,720	June 23	2344	602	55	1617
Dexter, Simon B., Glendale, Mont. Ash-pan	450,005	Apr. 7	532	133	55	103

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Dexter, Talbot C., Fulton, N. Y. Paper-folding machine	461,422	Oct. 20	1379	349	57	281
Dial, Wilbur F., assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Sewing-machine	446,830	Feb. 17	2143	533	54	951
Dial, Wilbur F., assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Seam-trimmer for sewing-machines	466,272	Dec. 29	3634	929	57	1867
Diamond Furniture Company. (See Doubler, John W. H., assignor.)						
Diamond Paper Bag Company. (See Stevens, Arthur L., assignor.)						
Dibb, James C., Jackson, Mich. Stretching device for bolting-cloths	457,638	Aug. 11	1163	297	56	759
Dibble Manufacturing Company. (See Gallagher, John L., assignor.)						
Dibble, William H., Brooklyn, N. Y. Dental mallet	452,665	May 19	1971	{ 494 495 }	55	963
Dice, Jacob G. (See Houck and Dice.)						
Dick, Albert B., Chicago, Ill. Paper-file	447,067	Feb. 24	2562	636	54	1036
Dick, Albert B., Chicago, Ill. Paper-punch	450,224	Apr. 14	857	215	55	172
Dick, Isaac N., Millville, Ohio. Traction-wheel	455,481	July 7	287	73	56	58
Dick, John W., and A. L. Eastin, St. Louis, Mo. Autographic manifolding and register- ing machine	462,665	Nov. 3	689	{ 174 175 }	57	683
Dick, Robert. (See Kennedy, Rankin, assignor.)						
Dickelman, Joseph L., Forest, Ohio. Sheet-metal roofing	446,217	Feb. 10	1168	286	54	743
Dicken, Egbert P., Kansas, Ohio. Hay-rack	464,632	Dec. 8	957	236	57	1328
Dickerman, Fletcher W. (See Recker, John P., assignor.)						
Dickerson, Edward N. (See Mackenzie-Hughes, Edward W., assignor.)						
Dickerson, Edward N. (See Messinger and Vortmann, assignors.)						
Dickerson, Freeman B. (See Shawhan, Jabea F., assignor.)						
Dickerson, J. C., et al. (See Merry, George G., assignor.)						
Dickey, Aaron F., Friedens, Pa. Wire fence	463,446	Nov. 17	1951	509	57	945
Dickey, Aaron F., O. P. Shaver, H. Stahl, and E. C. Welch, Friedens, Pa. Wire fence	456,022	July 14	1160	304	56	228
Dickey, Charles E., et al. (See Hamilton, Thomas H., assignor.)						
Dickey, Charles H., et al. (See Hamilton, Thomas H., assignor.)						
Dickey, Edward J. (See Grover, Arthur C., assignor.)						
Dickey, Foster, assignor of one-half to H. C. Wright, Schuyler, Nebr. Car-coupling	452,774	May 26	2150	539	55	1006
Dickey, George W., Des Moines, assignor of one-half to S. S. Wilson, Colfax, and C. C. Donnell, Otley, Iowa. Car-coupling	454,427	June 16	1877	491	55	1522
Dickey, James A., et al. (See Wiley, Edgar C., assignor.)						
Dickey, John S., Blanket, Tex. Churn-power	450,722	Apr. 21	1666	402	55	341
Dickey, William C., et al. (See Elliott, Mahlon E., assignor.)						
Dickinson, C. E. (See Trowbridge, Frank, assignor.)						
Dickinson, Charles B., Brooklyn, N. Y. Syringe	455,939	July 14	1029	269	56	205
Dickinson, Charles W., Belleville, N. J. Chromatic-printing machine	448,807	Mar. 24	2512	629	54	1622
Dickinson, Daniel A., St. Paul, Minn. Steam and hot-water generator	449,150	Mar. 31	3037	768	54	1731
Dickinson, Daniel A., St. Paul, Minn. Steam or hot-water generator	454,459	June 23	1922	502	55	1539
Dickinson, E. Haring, et al. (See Edgerly, Jason H., assignor.)						
Dickinson, Elizabeth. (See Dickinson, Emanuel, assignor.)						
Dickinson, Emanuel, assignor to E. Dickinson, Philadelphia, Pa. Lamp-burner	459,492	Sept. 15	1494	375	56	1372
Dickinson, Herbert Y., London, county of Middlesex, England. Figure toy	444,088	Jan. 6	170	43	54	36
Dickinson, James W., Milwaukee, Wis. Sidewalk-nail	464,961	Dec. 15	1472	370	57	1437
Dickinson, John Q. (See Ward, Andrew W., assignor.)						
Dickinson, Joseph L., Dubuque, Iowa. Shingle-sawing machine	450,995	Apr. 21	2102	{ 518 519 }	55	423
Dickinson, Joseph L., assignor to Novelty Iron Works Company, Dubuque, Iowa. Shingle- machine	450,996	Apr. 21	2103	519	55	423
Dickinson, Paul, Chicago, Ill. Chimney	445,714	Feb. 3	325	86	54	576
Dickinson, Paul, Chicago, Ill. Chimney	457,910	Aug. 18	1614	422	56	852
Dickinson, Robert, Sr., Millgrove, N. Y. Dinner-pail	460,432	Sept. 29	2953	{ 738 739 }	56	1663
Dickman, George. (See Jefferys and Dickman.)						
Dickover, Joseph B., et al. (See Dickover and Scott, assignors.)						
Dickover, Joshua C., and W. Scott, assignors of one-half to J. B. Dickover and C. G. Fargo, Hot Springs, S. D. Railway time-signal	456,023	July 14	1161	304	56	229
Dicks, James H. (See Davis and Dicks.)						
Dicks, James J., Toronto, Canada. Lawn-chair	445,012	Jan. 20	1669	428	54	342
Dicks, James J., Toronto, Canada. Hammock	445,049	Jan. 20	1728	445	54	353
Dickson, Archibald A., Côte St. Antoine, Canada. Apparatus for the manufacture of peat fuel	451,462	May 5	25	6, 7	55	583
Dickson, Archibald A., Côte St. Antoine, Canada. Peat-machine	451,463	May 5	26	7	55	584
Dickson, Archibald A., Côte St. Antoine, Canada. Machine for reducing crude peat to fuel	451,464	May 5	28	7, 8	55	584
Dickson, Charles J. (See Smith, Julius G., assignor.)						
Dickson, Charles T., Cincinnati, Ohio. Telephone-receiver	452,775	May 26	2152	539	55	1006
Dickson, David S. (See Sproul, Robert B., assignor.)						
Dickson, George, Toronto, and D. A. Jones, Beeton, Canada, assignors to J. W. Spencer, Atlanta, Ga. Extinguishing fires	458,561	Sept. 1	21	4	56	1070
Dickson, Gilbert J., assignor to G. J. Dickson Manufacturing Company, Albany, N. Y. Transom-operator	463,141	Nov. 17	1466	381	57	853
Dickson, James, Jr., Watertown, Pa. Shoe-fastening	460,743	Oct. 6	339	83	57	67
Dickson, William C. (See Shover and Dickson.)						
Diden, Edward T., Anniston, Ala. Turbine water-wheel	458,336	Aug. 25	2310	564	56	993
Didero, Joseph M., Lorain, Ohio. Fastening for ax-handles	456,802	July 28	2413	{ 636 637 }	56	485
Diebold, Anton, Harrison, N. J. Horse-tail holder	461,496	Oct. 20	1555	382	57	313
Diebold, Charles. (See Diebold, John W., assignor.)						
Diebold, John W., assignor to C. Diebold, Pittsburg, Pa. Method of and apparatus for producing railway-ballast from furnace-slag	465,572	Dec. 22	2513	{ 641 642 }	57	1642
Diebold Safe and Lock Company. (See Kirks, Albert, assignor.)						
Diefenderfer, Thomas F., et al. (See Good, Israel F., assignor.)						
Diehl, Philip, Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey, Feeding mechanism for sewing-machines	460,954	Oct. 13	645	166	57	133
Diehl, Philip, Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Presser-foot-lifting mechanism for sewing-machines	460,955	Oct. 13	646	167	57	133
Diehl, Philip, Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Take-up mechanism for sewing-machines	462,398	Nov. 3	293	72, 73	57	606
Diehl, Philip, Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Needle-clamp for sewing-machines	464,013	Dec. 1	17	5	57	1139
Diehl, Philip, Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Treadle mechanism for sewing-machines	464,277	Dec. 1	435	{ 103 104 }	57	1217

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Diehl, Philip, Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Shuttle-race for sewing-machines	465,362	Dec. 15	2175	557	57	1566
Diehl, Philip, Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Mechanical movement	465,363	Dec. 15	2176	557	57	1567
Diehl, Philip, Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Sewing-machine	465,557	Dec. 22	2492	636	57	1638
Diehl, Philip, Elizabeth, and E. H. Bennett, Jr., Bayonne, N. J. Electric fan	465,360	Dec. 15	2172	555 556 557	57	1565
Diehl, Philip, Elizabeth, and E. H. Bennett, Jr., Bayonne, N. J. Electric fan	465,361	Dec. 15	2173	555 556 557	57	1566
Diekman, Louis C. (See Daniel, Thomas J., assignor.)						
Dies, Charles A., assignor of one-half to J. Hart, Chicago, Ill. Velocipede	450,997	Apr. 21	2104	519	55	423
Dieterich, Carl A. (See Burst, Leonhart, assignor.)						
Dieterich, Fred G., assignor to J. U. O'Meara, Washington, D. C. Vending-machine	452,635	May 19	1927	484 485	55	954
Dieterich, Gustave, assignor of one-half to S. B. Wortmann, New York, N. Y. Artist's kit.	458,155	Aug. 25	1999	518	56	935
Dieterich, William. (See Fuchs, Robert, assignor.)						
Dieterle, Wilhelm, assignor to I. Hauff, Feuerbach, near Stuttgart, Germany. Removing lime from hides	450,930	Apr. 21	1983		55	401
Dieterle, Wilhelm, assignor to I. Hauff, Feuerbach, near Stuttgart, Germany. Tanning-material	450,998	Apr. 21	2105		55	423
Dieterich, Elias, Rochester, N. Y. Railway-tie	450,145	Apr. 14	734	184	55	149
Diétrich, Selena, et al. (See Dunn, Adam, assignor.)						
Dietz, Byron J., Central Bridge, N. Y. Clothes-brush	461,604	Oct. 20	1794	422	57	345
Dietz, Conrad, et al. (See Hofmann, Johann, assignor.)						
Dietz, Frederick, assignor to R. E. Dietz Company, New York, and Steam Gauge and Lantern Company, Syracuse, N. Y. Lamp or lantern	451,109	Apr. 28	2262	561	55	464
Dietz, Frederick, assignor to R. E. Dietz Company, New York, and Steam Gauge and Lantern Company, Rochester, N. Y. Tubular lantern	453,760	June 9	918	238	55	1329
Dietz, Frederick, assignor to R. E. Dietz Company, New York, and Steam Gauge and Lantern Company, Syracuse, N. Y. Burner-fastening for lanterns	464,496	Dec. 8	752	184	57	1287
Dietz, John F., et al. (See Hofmann, Johann, assignor.)						
Dietz, John G., et al. (See Ward, Alexander F., assignor.)						
Dietz, Joseph, Owatonna, Minn. Automatic grain-measurer	455,744	July 14	735	194	56	150
Difany, Francis M., Marion, Ohio. Nut-lock	449,311	Mar. 31	3133	790	54	1749
Digeon, Louis, Paris, France. Call system	448,322	Mar. 17	1735	439	54	1467
Dilatash, Walter S., et al. (See Kunkle, Kenton C., assignor.)						
Dill, Ellsworth. (See Kadell and Dill.)						
Dille, Henry H., Richmond, Ind. Lawn-mower	460,433	Sept. 29	2954	739	56	1663
Dille, Henry H., and E. W. McGuire, assignors to Dille & McGuire Manufacturing Company, Richmond, Ind. Lawn-mower	446,329	Feb. 10	1366	332 333	54	783
Dille & McGuire Manufacturing Company. (See Dille and McGuire, assignors.)						
Dillehay, Alonzo A., et al. (See Jones, Washington S., assignor.)						
Dillenhack, Clarence, Syracuse, N. Y. Toy parachute	456,944	Aug. 4	35	7	56	539
Dillenburg, Michel, San Francisco, Cal. Pipe-coupling	455,178	June 30	3171	803	55	1781
Diller, Samuel B. (See Wilfong, Joseph, assignor.)						
Dillie, Francis M. (See Bennett, George H., assignor.)						
Dillmann, Victor C. (See McHale and Dillmann.)						
Dillman, William C., Brooklyn, assignor to O. Walsh, New York, N. Y. Annunciator	456,803	July 28	2444	637	56	485
Dillman, William C., Brooklyn, assignor to O. Walsh, New York, N. Y. Annunciator	458,947	Sept. 1	618	152	56	1186
Dillman, William C., Brooklyn, assignor to O. Walsh, New York, N. Y. Annunciator	460,159	Dec. 29	3461	885	57	1835
Dillon, Alvira, Canton, Mo. Channel-scouring device	461,935	Oct. 27	2278	564	57	459
Dillon, Joseph, Larchmont, assignor of one-half to H. J. Reilly, New York, N. Y. Connection for electric conductors	457,761	Aug. 11	1364	352	56	801
Dillon, Joseph, Larchmont, assignor of one-half to H. J. Reilly, New York, N. Y. Connection for electric conductors	461,195	Oct. 13	1003	256	57	199
Dillon, Peter, assignor of one-half to J. H. Home, Lawrence, Mass. Drying-machine	448,181	Mar. 10	1470	374 375	54	1407
Dillon, Thomas, assignor of one-half to J. Caven, Indianapolis, Ind. Mast-arm for electric lamps	454,166	June 16	1478	388	55	1446
Dimity, Engelhard, and W. F. Griffin, Clay Centre, Kans. Weed-cutter for listed corn	464,819	Dec. 8	1251	313	57	1382
Dimmock, William C., Baltimore, Md. Sad-iron	449,845	Apr. 7	309	80	55	61
Dimond, Charles. (See Goodwillie, Walter S., assignor.)						
Dimond, George H., assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Feeding mechanism for sewing-machines	466,273	Dec. 29	3635	930	57	1867
Dimond, Henry P., et al. (See Nichols, Emory I., assignor.)						
Dingee, John F., Bedford Station, N. Y. Window or door button	462,474	Nov. 3	403	99	57	627
Diniun, Ferral C., Jr. (See Calkins, Almon B., assignor.)						
Dinkelman, Christian H., St. Louis, Mo. Gymnastic apparatus	447,811	Mar. 10	884	220	54	1292
Dinsmore, Adriance S. (See Cooper, George N., assignor.)						
Dinsmore, Alfred S., Boston, Mass. Sewing-machine	450,225	Apr. 14	857	215	55	172
Dinsmore, Alfred S., Boston, Mass. Apparatus for treating cloth	458,224	Aug. 25	2111	548	56	956
Dinsmore, Robert, assignor of one-half to A. Greenstein, Weston, W. Va. Magazine-gun with pneumatically-operated magazines	444,666	Jan. 13	1066	277 278	54	218
Dinsmore, Robert, assignor of one-half to A. Greenstein, Weston, W. Va. Magazine fire-arm	455,034	June 30	2910	740	55	1730
Dinsmore, Robert, assignor of one-half to A. Greenstein, Weston, W. Va. Pipe and shaft coupling	462,894	Nov. 10	1080	280	57	769
Dinwiddie, Henry R. (See Henninger and Dinwiddie.)						
Dion, Léon O., Natick, Mass. Electric railway	458,844	Sept. 1	460	110 111	56	1154
Dion, Léon O., Natick, Mass. Means for supplying motive power to cars or other vehicles	461,895	Oct. 27	2201	543	57	444
Dion, Léon O., Natick, Mass. Electric-railway system	464,557	Dec. 8	845	208 209	57	1305
Dippry, Gideon S., Canton, Ohio. Curtain-stretcher	463,303	Nov. 17	1720	450	57	901
Dirkes, Henry A., New York, N. Y. Combined dust-arrester and ventilator for cars	451,465	May 5	31	8	55	585
Dirksen, Richard D., Freeport, Ill. Door-hanger	445,466	Jan. 27	2350	610	54	484
Dismukes, Elisha P. (See Weakley, Loyd L., assignor.)						
Disston & Sons, Henry. (See Wallwork, John, assignor.)						
Disston, Thomas S., Philadelphia, Pa. Saw-setting machine	453,040	May 26	2577	651	55	1089
Ditchy, Peter, Sandusky, Ohio. Hoisting apparatus	458,802	Sept. 1	381	91	56	1138
Dithridge, George W., New York, N. Y. Metallic railway-car	464,314	Dec. 1	490	117	57	1226
Dittmar, Allen A., and H. Falkenhausen, assignors of one-third to A. L. Reinmann, New York, N. Y. Electric air-pump	457,762	Aug. 11	1367	353	56	801

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Dittrich, George. (See Finnerty, Michael F., assignor.)						
Dittrich, Julius C., New York, N. Y. Preparing ozone water	450,404	Apr. 14	1159	-----	55	228
Dittrich, William, Erie, Pa. Pipe-tongs	465,558	Dec. 22	2494	637	57	1638
Divis, Jan V., Preloce, Austria-Hungary. Specific-gravity apparatus	465,841	Dec. 29	2924	748	57	1732
Dix, James A. (See Heldreth and Dix.)						
Dixon, Alexander H., assignor to A. Dixon, Toronto, Canada. Organ	448,508	Mar. 17	2025	{ 506 507 }	{ 54	1521
Dixon, Annie. (See Dixon, Alexander H., assignor.)						
Dixon, Ellis W., near Forest Grove, Oreg. Fire-escape	465,464	Dec. 22	2324	597	57	1606
Dixon, Frederic N., Philadelphia, Pa. Traveling crane	451,269	Apr. 28	2542	{ 627 628 }	{ 55	518
Dixon, Frederic N., Philadelphia, Pa. Traveling crane	465,109	Dec. 15	1755	444	57	1488
Dixon, Frederic N. and J. H. F., Philadelphia, Pa. Filing-band	463,380	Nov. 17	1852	484	57	926
Dixon, George E., Beacon, Iowa. Wire-reel	444,314	Jan. 6	522	136	54	105
Dixon, George E., Beacon, Iowa. Wire reel and stretcher	456,985	Aug. 4	93	23	56	551
Dixon, Henry, and E. Leoty, Dayton, Ohio. Roll-paper manufolding-tablet	460,201	Sept. 29	2610	651	56	1597
Dixon, Hugh, Sr., Harrison, N. J. Carding-machine	451,920	May 12	740	186	55	726
Dixon, J. R. (See Darling, Naaman L., assignor.)						
Dixon, James. (See Lowdon and Dixon.)						
Dixon, James H. F. (See Dixon, Frederic N. and J. H. F.)						
Dixon, James H. F. (See Fitler and Armstrong, assignors.)						
Dixon, John W., Carlisle, Ohio. Window-washer	448,758	Mar. 24	2440	610	54	1608
Dixon, Laurens P., assignor to L. Dixon, Toledo, Ohio. Steam-pump	458,771	Sept. 1	333	81	56	1129
Dixon, Lettie. (See Dixon, Laurens P., assignor.)						
Dixon, Preston A., Iverson, La. Horse-detacher	455,179	June 30	3172	803	55	1781
Dixon, Robert H. (See Perry and Dixon.)						
Dixon, Robert H., Stillwater, Minn. Mowing-machine	455,482	July 7	288	73	56	58
Dixon, Robert H., and J. F. Steward, Chicago, Ill. Self-binding grain-harvester	452,836	May 26	2240	{ 562 563 }	{ 55	1024
Dixon, Robert M., East Orange, N. J., assignor to Safety Car Heating and Lighting Company, New York, N. Y. Car-heating apparatus	457,706	Aug. 11	1964	326	56	778
Dixon, Samuel W., Findlay, Ohio. Cremation-furnace	461,327	Oct. 13	1208	{ 307 308 }	{ 57	242
Dixon, Walter L., assignor to Hopedale Machine Screw Company, Hopedale, Mass. Making dies for threading-tools	451,890	May 5	672	170	55	706
Dixon, William, Radersburg, Mont. Car-coupling	458,948	Sept. 1	620	153	56	1186
Dixon, William E., Chicago, Ill. Sash-fastener	447,068	Feb. 24	2563	636	54	1036
Dixon-Woods Company. (See Miksch, Wenzel A., assignor.)						
Doak, Egbert O., Steamboat Rock, Iowa. Traction-wheel	458,290	Aug. 25	2232	546	56	977
Doan, Ellis H., Coatesville, Pa. Ledger, bill, or account file	465,465	Dec. 22	2325	597	57	1606
Doan, William E., Jr., et al. (See Jenkins, Sylvester, assignor.)						
Doane, David J., Vinal Haven, Me. Sliding gage for stone-cutters' use	459,679	Sept. 15	1804	453	56	1430
Doane, William H., Cincinnati, Ohio. Planing and matching machine	463,577	Nov. 17	2159	{ 570 571 }	{ 57	986
Dobbel, Frederick W., Purissima, Cal. Wagon-brake	457,544	Aug. 11	1020	261	56	731
Dobbel, Frederick W., Purissima, Cal. Sight for fire-arms	462,475	Nov. 3	404	99	57	627
Dobbie, Robert S., Jersey City, N. J. Electric motor for wheeled vehicles	452,992	May 26	2507	635	55	1075
Dobbie, Robert S., Brooklyn, N. Y. Arc-lighting system	461,569	Oct. 20	1675	410	57	366
Dobbins, Edwin A., New York, N. Y. Cash indicator and recorder	456,287	July 21	1561	{ 412 413 }	{ 56	315
Dobbins, Horace G., et al. (See Purdy, Albert L., assignor.)						
Dobbs, Ely R., Poughkeepsie, N. Y. Suspender-hook	452,217	May 12	1250	316	55	818
Dobeck, Frank H., assignor of two-thirds to J. T. Robinson and G. E. Stokes, Omaha, Nebr. Shield for sewing-machine gear	461,497	Oct. 20	1556	382	57	314
Dobson, Alexander, Beaverton, Canada. Bolting-reel	453,439	June 2	418	109	55	1226
Dobson & Barlow. (See Dobson and Bromiley, assignors.)						
Dobson, Benjamin A., and W. I. Bromiley, assignors to Dobson & Barlow, Bolton, Eng-land. Traveling-flat carding-engine	452,993	May 26	2509	{ 635 636 }	{ 55	1075
Dobson, William, London, England. Grinding the flats of traveling-flat carding-engines	455,983	July 14	1095	288	56	217
Dockstader, Preston, C., Colorado Springs, Colo. Lock-rail joint	462,399	Nov. 3	294	73	57	607
Dodd, Abial M., Stillwater, Minn. Preserving eggs	452,994	May 26	2512	636	55	1076
Dodd, Alvin H., Greeley, Colo. Steam vacuum-pump	452,994	May 19	2112	532	55	990
Dodd, Bion H., Rosendale, Wis. Window-screen	450,792	Apr. 21	1772	431	55	361
Dodd, Charles E., Williamsport, Pa. Letter-copying moistener	451,400	Apr. 28	2730	678	55	553
Dodd, Charles E., Williamsport, Pa. Hand copying-roller	451,401	Apr. 28	2731	678	55	553
Dodd, David. (See Mulford, Ichabod H., assignor.)						
Dodd, James, Boston, Mass. Music-chart	452,995	May 26	2513	636	55	1076
Dodd, Matthew M., Portsmouth, Va. Automatic governor for air-brakes	462,966	Nov. 10	1191	309	57	790
Dodd, Stephen G., Fort Assinaboine, Mont. Lamp	458,826	Sept. 1	434	105	56	1148
Dodd, Willis G., San Francisco, Cal. Water-wheel bucket	454,638	June 23	2224	573	55	1592
Dodge, Albert J., Peterborough, N. H. Thermometer	465,054	Dec. 15	1654	421	57	1469
Dodge Coal Storage Company. (See Dodge, James M., assignor.)						
Dodge, Eugene A. (See Little, Joseph A., assignor.)						
Dodge, Frank G., Wiscoy, and D. C. Starks, Warsaw, N. Y.; said Dodge assignor to said Starks. Land-roller	450,006	Apr. 7	533	133	55	103
Dodge, George P., Great Neck, N. Y., assignor to Mineralized Rubber Company, of New York. Belting	450,999	Apr. 21	2106	519	55	424
Dodge, George T. (See Dodge, Oscar L. and G. T.)						
Dodge, Horace L., Hornellsville, N. Y. Door-check	444,338	Jan. 6	557	143	54	111
Dodge, James M., Philadelphia, Pa. Machinery for handling coal	446,814	Feb. 17	2118	527	54	946
Dodge, James M., Philadelphia, Pa. Piling and removing machinery for coal	453,966	June 9	1189	310	55	1383
Dodge, James M., Philadelphia, Pa. Pulley	464,795	Dec. 8	1225	305	57	1377
Dodge, James M., Philadelphia, Pa., assignor to Dodge Coal Storage Company, Naugatuck, Conn. Conveyer-trough bottom	446,436	Feb. 17	1543	379	54	830
Dodge, Joseph D., Rowley, Mass. Marsh-horseshoe	464,558	Dec. 8	847	209	57	1305
Dodge, Miles B., San Francisco, Cal. Fuel-saving device	444,976	Jan. 20	1616	413	54	331
Dodge, Miles B., San Francisco, Cal. Steam-engine	450,780	Apr. 21	1753	{ 425 426 }	{ 55	357
Dodge, Oscar L. and G. T. Inwood, N. Y. Wrench	458,337	Aug. 25	2312	564	56	993
Dodge, Philip T., et al. (See Freeman, James P., assignor.)						
Dodge, Philip T., trustee. (See Emmner, Julius, Jr., assignor.)						
Dodge, Philip T., Washington, D. C. Type-composing mechanism	444,294	Jan. 6	494	129	54	98
Dodge, Philip T., Washington, D. C. Mechanism for justifying matrices, type, &c.	444,337	Jan. 6	555	143	54	111
Dodge, Philip T., Washington, D. C. Erasing attachment for phonographs	449,349	Mar. 31	3376	851	54	1791

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Dodge, Philip T., Washington, D. C. Linotype-machine.	449,872	Apr. 7	343	88	55	68
Dodge, Richard S., <i>et al.</i> (See Gilman, Willard H., assignor.)						
Dodge, Wallace H., Mishawaka, Ind. Pulley.	456,722	July 28	2273	603	56	460
Dodge, Walter S., Washington, D. C. assignor to Remington Standard Type Writer Manufacturing Company, New York, N. Y. Type-writing machine.	446,381	Feb. 10	1437	353	54	798
Dodge, William B. (See Purdy, Zachariah V., assignor.)						
Dodge, William C. (See Dodge, William L. and W. C.)						
Dodge, William L. and W. C.; said William L. Dodge assignor to O. E. Mickel, Haverhill, Mass. Cylinder-cock.	445,979	Feb. 10	755	185	54	670
Dodge, Willis, Blaine, Mo. Car-coupling.	466,160	Dec. 29	3462	885	57	1835
Dodson, Charles M., Des Moines, Iowa. Road-grading machine.	456,966	Aug. 4	94	23	56	551
Dodson, Darien W., Wilkes-Barré, Pa. Air-escape for radiators.	463,291	Nov. 17	1697	443	57	897
Doe, Calvin W., Big Rapids, Mich. Broom-press.	464,094	Dec. 1	134	33	57	1162
Doebler, Charles F. (See Street, Albert F., assignor.)						
Doeff, Abram. (See Glikson and Doeff.)						
Doehn, Otto, Cleveland, Ohio. Magnesium flash-light.	451,853	May 5	614	152	55	696
Doellé, Marie, New York, N. Y. Separable bath-tub.	446,164	Feb. 10	1085	267	54	727
Doenitz, August, assignor of one-half to J. Moser and E. Moeckel, Ashland, Wis. Adjustable extension-screen.	457,639	Aug. 11	1164	298	56	759
Doerfel, Max, Klingenthal, Germany. Harmonica.	449,755	Apr. 7	174	43	55	36
Doering, John H. (See Hashup, William, assignor.)						
Doering, Phaon P., Antwerp, Ohio. Express-car.	460,744	Oct. 6	339	83.84	57	67
Doffmeyer, James J., and C. H. Wolfe, Keokuk, Iowa. Educational device.	445,759	Feb. 3	402	102	54	592
Doggett, John, Plain City, Ohio. Telegraph-key.	445,442	Jan. 27	2315	601	54	478
Doig, William S., Brooklyn, N. Y. Box-nailing machine.	461,013	Oct. 13	728	188 189	57	149
Doig, William S., Brooklyn, N. Y. Nailing-machine.	461,014	Oct. 13	733	189	57	150
Dolby, Thomas G. F., Elgin, Ill. Uniting solderable surfaces with aluminum.	459,611	Sept. 15	1690	424	56	1408
Dold, Albert W., <i>et al.</i> (See Conroy, Thomas, assignor.)						
Dolen, Kearn, Onalaska, Wis. Gang-saw guide.	450,007	Apr. 7	534	133	55	104
Dolge, Alfred. (See Millet, John W., assignor.)						
Dolivo-Dobrowolsky, Michael von, assignor to Allgemeine Elektrizitäts-Gesellschaft, Berlin, Germany. Transmission of alternating currents of different phase.	455,683	July 7	617	162 163	56	120
Dolivo-Dobrowolsky, Michael von, assignor to Allgemeine Elektrizitäts-Gesellschaft, Berlin, Germany. Alternating-current motor.	456,804	July 28	2416	637	56	485
Doll, Arnold. (See Kaffenberger, Gustav, assignor.)						
Dollar, William M., Henvolton, N. Y. Ladder.	445,980	Feb. 10	756	185	54	670
Doloire, Louis, and C. Golay, Paris, France. Mill.	462,372	Nov. 3	246	61	57	597
Dolph Company, A. M. (See Slack, John H., assignor.)						
Dolph, Fred A., Aurora, Ill. Type-writing machine.	457,308	Aug. 4	609	159 160 161	56	646
Dolphin, Matthew J., Brooklyn, N. Y. Inking device.	449,110	Mar. 31	2977	752	54	1791
Dolphin, Matthew J., Brooklyn, N. Y. Inking device.	449,405	Mar. 31	3481	876	54	1812
Dolphin, Matthew J., Brooklyn, N. Y. Letter-marking machine.	449,406	Mar. 31	3485	876 877	54	1812
Dolson, John L., Charlotte, Mich. Vehicle-gearing.	446,437	Feb. 17	1546	379	54	831
Don, Alexander, Mount Healthy, assignor to Globe Company, Cincinnati, Ohio. Paper-file.	450,097	Apr. 7	659	167	55	129
Don, Alexander, Mount Healthy, assignor to Globe Company, Cincinnati, Ohio. Paper or bill file.	451,729	May 5	437	106	55	662
Donan, Herman C., Oshkosh, Wis. Hose-coupling.	461,781	Oct. 20	2019	498	57	400
Domer, Albert, and O. C. Hagemann, London, England, assignors to J. S. Kirk & Co., Chicago, Ill. Recovering glycerine and salt from spent soap-lye.	455,180	June 30	3172	804	55	1781
Domestic Hydrocarbon Heat Company. (See Abbott, Warren M., assignor.)	453,829	June 9	1013		55	1348
Domestic Sewing Machine Company. (See Hebert, Joseph K., assignor.)						
Domestic Sewing Machine Company. (See Huntington, Thomas S., assignor.)						
Donnermuth, John C. (See Schlager and Donnermuth.)						
Donahue, Charles W., Trenton, N. J. Manufacture of pins for potters' use.	452,435	May 19	1610	400	55	896
Donahue, Bernard, assignor, by mesne assignments, to K. F. Donahue, Yonkers, N. Y. Wrench.	454,612	June 23	2183	563	55	1585
Donahue, Francis O., Grand Rapids, Mich. Machine for cleaning car-cushions.	458,949	Sept. 1	620	153	56	1186
Donald, Frank, assignor to himself and N. S. Ernst, Denison, Tex. Hay-press.	444,667	Jan. 13	1074	278	54	220
Donaldson, John E., Montezuma, and E. C. Elder, Indianapolis, Ind. Roofing-tile.	465,364	Dec. 15	2176	557 558	57	1567
Donaldson-Macrae Electric Company. (See Macrae, Roderick, assignor.)						
Donaldson, Walter, Washington, D. C., assignor to L. C. Martin, Iola, Kans. Washing-machine.	451,757	May 5	486	120	55	670
Donally, Amalia M., New York, N. Y. Bottle-filling apparatus.	445,882	Feb. 3	607	149	54	631
Donauer, Joseph, assignor of one-half to J. Gonska, Duluth, Minn. Shoe holder and detacher.	459,680	Sept. 15	1805	453	56	1430
Donham, Benjamin E., Saulnierville, Canada. Liniment.	454,334	June 16	1722		55	1493
Donisthorpe, Worlsworth, Bayswater, and W. C. Crofts, Westminster, England. Producing instantaneous photographs.	452,966	May 26	2464	622 623	55	1067
Donne, Morgan. (See Hearn and Donne.)						
Donnell, Cassius C., <i>et al.</i> (See Dickey, George W., assignor.)						
Donnell, Edward P. (See Grunich, Edward, assignor.)						
Donnell, Edward P. (See Little, Robert H., assignor.)						
Donnellan, Charles E., Chicago, assignor of one-half to J. M. Thompson, Joliet, Ill. Straw-binding harvester.	462,306	Nov. 3	141	35 36 37	57	577
Donnellan, James S., Dubuque, Iowa. Oil-cup feeder.	447,300	Mar. 3	26	7	54	1123
Donnelly, Charles J., Philadelphia, Pa. Match-making machine.	450,405	Apr. 14	1160	283	55	228
Donnelly, John, London, England. Method of and apparatus for manufacturing axle-boxes.	459,999	Sept. 22	2291	574 575	56	1529
Donnelly, John M., Neihart, Mont. Car-replacer.	464,432	Dec. 1	651	160	57	1258
Donnelly, Samuel A., Chicago, Ill. Bicycle.	447,234	Feb. 24	2863	710 711	54	1093
Donnelly, Samuel A., Chicago, Ill. Bicycle.	448,509	Mar. 17	2026	507	54	1522
Donnelly, William E., <i>et al.</i> (See Scott, Elmer D., assignor.)						
Donovan, James, Goshen, N. Y. Road-cart.	461,158	Oct. 13	932	241	57	186
Donovan, Robert M., Portland, Oreg. Compound for coloring broom-corn.	444,229	Jan. 6	406		54	80

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Donovan, Thomas J., assignor to W. G. Goodrich, Chicago, Ill. Electric heater	446,831	Feb. 17	2146	533	54	952
Donovan, William H., Boston, Mass. Ticket-punch	451,180	Apr. 28	2377	591	55	487
Doolan, Thomas, Chicago, Ill. Machine for thrashing flax	458,269	Aug. 25	2201	538	56	972
Dooley, Clarence H. and H. L., Bloomington, Ill. Disk corn-planter	448,943	Mar. 24	2716	685	54	1661
Dooley, Harry L. (See Dooley, Clarence H. and H. L.)						
Dooley, Hammond P., Forrest City, Ark. Cotton-picker	458,751	Sept. 1	305	75	56	1123
Dooley, Thomas B., Malden, Mass. Machine for molding carbon points	452,599	May 19	1870	470	55	943
Dooley, Thomas B., Malden, Mass. Autograph-recorder	465,466	Dec. 22	2326	597	57	1606
Doolin, William R., Knox Point, La. Grease-box for vehicle-wheels	456,024	July 14	1163	304	56	229
Doolittle, Joseph B., Doolittle's Mills, Ind. Butter-lifter	452,044	May 12	950	242	55	765
Dootson, William, Athens, Ga. Tension-regulating device for spindle-driving bands	447,301	Mar. 3	27	8	54	1123
Dora, Alvin T., Hutchinson, Kans. Salt-pan	461,740	Oct. 20	1945	483	57	385
Dorenwend, Christian H., Toronto, Canada. Electric belt	459,681	Sept. 15	1805	454	56	1430
Doremus, Willard D., Washington, D. C., assignor of one-half to J. H. Stotsenburg, New Albany, Ind. Lighting mechanism for lamps	450,483	Apr. 14	1272	311	55	249
Doremus, Willard D., Washington, D. C., assignor to Corbin Cabinet Lock Company, New Britain, Conn. Padlock	451,110	Apr. 28	2263	561	55	465
Dorman, John F. W., Baltimore, Md. Power-press for vulcanizing rubber, &c.	445,426	Jan. 27	2300	596 597	54	475
Dorman, Willis A. (See Jones, William A., assignor.)						
Dormitzer, Anna, New York, N. Y. Step-ladder	449,846	Apr. 7	310	80	55	61
Dornbier, Jacob, Sandusky, Ohio. Temporary binder	444,695	Jan. 13	1115	288	54	228
Dorrance, Charles J., Chicago, Ill. Movable grate-bar	451,615	May 5	2159	62, 63	55	629
Dorsett, Walter B. (See Atkinson, Joseph, assignor.)						
Dorsey, Vernon M., assignor to G. G. Schroeder, Washington, D. C. Water-purifier	448,416	Mar. 17	1887	474	54	1496
Dort, Josiah D., Flint, Mich. Road-cart	448,855	Mar. 24	2593	651	54	1637
Dorwart, George, Philadelphia, Pa. Pegging-jack	461,328	Oct. 13	1209	308	57	242
Dose, Henry C., and J. Ronkowski, Sr., Stoddard, Wis. Car-coupling	458,998	Sept. 8	702	172	56	1210
Dottermann, Thomas, Allegheny, Pa. Faucet-tool	460,956	Oct. 13	648	167	57	133
Doty, Albert J., New York, N. Y. Broiling-stove	447,750	Mar. 3	758	189	54	1262
Doty, Edwin A., Lockport, N. Y. Steam-generator	457,640	Aug. 11	1165	298	56	759
Doty, H. Walter (See Roedel, Augustus, Jr., assignor.)						
Doty, Wallace W., Pueblo, Colo. Sash-lock	452,776	May 26	2153	539	55	1007
Doty, William M., Chicago, Ill. Washing-machine	461,147	Oct. 13	915	237	57	183
Doubler, John W. H., assignor to Diamond Furniture Company, Rockford, Ill. Chair	460,568	Oct. 6	42	10	57	10
Doublier, Hyppolite, Paris, France. Child's hoop	464,151	Dec. 1	216	51	57	1177
Doucet, Felix, Montreal, Canada. Sewing-machine	457,578	Aug. 11	1073	275	56	742
Doucet, Stanislaus J., Shippegan, Canada. Automatic railway signaling apparatus	452,072	May 12	1006	254	55	773
Doudna, Lewis B., Dayton, Ohio. Gage-knife	450,738	Apr. 21	1683	408	55	344
Dougherty, George C., assignor to J. T. Smith, S. H. Whitsitt, L. H. Berger, and L. G. Ost, Quincy, Ill. Freight or grain car door	450,559	Apr. 14	1371	338	55	270
Dougherty, William J. (See Phillips, James B., assignor.)						
Doughty, Charles W., Augusta, Ga. Fertilizer	462,476	Nov. 3	406		57	627
Doughty, Joshua J., Augusta, Ga. Harrow	455,181	June 30	3175	804	55	1781
Dougine, James T., Chicago, Ill. Dumping-wagon	445,981	Feb. 10	757	185 186	54	671
Douglas, Alanson S., Washington, D. C. Buttoner	457,475	Aug. 11	914	234	56	709
Douglas, James, <i>et al.</i> (See Morgan and Crowley, assignors.)						
Douglas, James, New York, N. Y. Furnace for calcining ores	458,102	Aug. 18	1915	498	56	912
Douglass, J. Walter. (See Bormann, Hermann, assignor.)						
Douglass, J. Walter. (See Kerbaugh, Minor C., assignor.)						
Douglass, James, <i>et al.</i> (See Crowley, Richard J., assignor.)						
Douglass, Samuel W., assignor to M. C. Bullock, Chicago, Ill. Rock core drilling apparatus	462,400	Nov. 3	297	74	57	607
Douglass, Samuel W., and M. C. Bullock, Chicago, Ill. Drilling apparatus	462,428	Nov. 3	338	83	57	615
Douillet, Louis A., New York, N. Y., assignor to Consolidated Fastener Company, Portland, Me. Fastening device for gloves	460,911	Oct. 6	586	148	57	114
Doulton, Henry L. (See Leech and Doulton.)						
Doulton, Henry L., and S. H. Leech, Lambeth, England. Forming undercut projections and recesses in tiles, &c.	462,895	Nov. 10	1081	280 281	57	769
Downe, Thomas R., London, England. Electric fire-indicator	455,931	Feb. 3	677	165	54	644
Douty, Harry W. (See Barrett, Cornelius T., assignor.)						
Dover, Samuel B. (See Tyden and Dover.)						
Dover, Samuel B., Adairsville, Ga. Car-coupling	459,960	Sept. 22	2238	562	56	1519
Dover Stamping Company. (See Whitney and Kirby, assignors.)						
Dow, Frank L., assignor to Rochester Hosiery Company, Rochester, N. Y. Automatic circular-knitting machine	465,842	Dec. 29	2925	748 749	57	1732
Dow, Herbert H., Cleveland, Ohio. Extracting bromine	460,370	Sept. 29	2875	717 718	56	1648
Dow Manufacturing Company. (See Greenlaw, William P., assignor.)						
Dow, Wason E., Orange, Vt. Butter-box	462,241	Nov. 3	32	7	57	558
Dow, Willard E., Braintree, Mass. Drop for electric lamps	451,996	May 12	858	219	55	749
Dow, Willard E., Braintree, Mass. Fusible cut-out for electric connections	451,997	May 12	860	219	55	749
Dowd, John E., Chicago, Ill. Exercising apparatus	457,400	Aug. 11	797	205	56	689
Dowdell, Thomas. (See Kimmings and Dowdell.)						
Dowell, Frances S., Eureka Springs, Ark. Washing-machine	462,629	Nov. 3	642	162	57	675
Dowell, Lawson H., Walton, Tex. Self-setting trap	455,313	July 7	24	6	56	7
Dowling, John, Wilkes-Barre, Pa. Washing-machine	465,168	Dec. 15	1853	470	57	1506
Dowling, Thomas, <i>et al.</i> (See Hayes, Edward, assignor.)						
Downes, William A., assignor to Penberthy Injector Company, Detroit, Mich. Oil-cup	446,250	Feb. 10	1242	303	54	758
Downey, Alvey C., and A. H. Green, Tousey, Ky. Harrow	446,251	Feb. 10	1243	304	54	758
Downey, George M. (See Davies and Downey.)						
Downey, George W., Hyattsville, Md. Lighting-rod	446,130	Feb. 10	1013	250	54	717
Downey, Silas C., Chicago, Ill. Plumb-level	460,388	Sept. 29	2897	724	56	1652
Downey, Thomas F., assignor of one-half to F. P. Byrne, Detroit, Mich. Gas-burner for cooking stoves or ranges	456,139	July 21	1323	348	56	270
Downham, Fletcher W., and B. M. Blauvelt, Deshler, Ohio. Liquid-measure	456,436	Nov. 17	2021	530	57	959
Downie, John G. (See Downie, Robert M. and J. G.)						
Downie, John G., Beaver Falls, Pa. Steam-pump	454,857	June 30	2564	660	55	1664
Downie, Robert M., New Brighton, Pa. Apparatus for molding patterns on hollow bricks, tiles, &c.	444,628	Jan. 13	1008	263 263	54	208
Downie, Robert M. and J. G., Beaver Falls, Pa. Pumping-engine	444,627	Jan. 13	1006	262	54	208
Downie, Robert M. and J. G., Beaver Falls, Pa. Valve	454,613	June 23	2125	564	55	1586

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Downing, Andrew J. (See Pimlott and Downing.)						
Downing, Arnold M., Kansas City, Mo. Dust-pan	452,696	May 19	2022	506	55	973
Downing, Ellsworth P., Mount Pulaski, Ill. Windmill-governor	464,064	Dec. 1	87	22	57	1154
Downing, George H., New York, N. Y. Fire-extinguisher	465,922	Dec. 29	3059	784	57	1757
Downing, Joseph C., Bowling Green, Mo. Wire-fence machine	462,630	Nov. 3	642	162	57	675
Downing, Philip B., Boston, Mass. Street letter-box	462,092	Oct. 27	2500	621	57	501
Downing, Philip B., Boston, Mass. Letter-box	462,093	Oct. 27	2501	621	57	501
Downs, James W., Bowdon, Ga. Cultivator	448,323	Mar. 17	1737	439	54	1468
Downward, Thomas, Philadelphia, Pa., assignor of one-half to T. H. Downward, Washington, D. C. Spinning-machine	461,628	Oct. 20	1772	436	57	353
Downward, Thomas H. (See Downward, Thomas, assignor.)						
Dowse, William B. H. (See Wilson, Horace M., assignor.)						
Doyle, Alexander, New York, N. Y. Developing-dish for photographers	454,518	June 23	2014	522	55	1556
Doyle, Edward C. (See Seror, John, assignor.)						
Doyle, James F., Detroit, Mich. Pipe-bending machine	462,538	Nov. 3	501	122	57	646
Doyle, William J. C., Aspen, Colo. Hoisting apparatus	460,000	Sept. 22	2224	575	56	1530
Dozier, Orion T., Birmingham, Ala. Device for affixing mailing-labels	465,092	Dec. 15	1721	437	57	1482
Drabble, George T., Shelburne Falls, Mass. Combined pocket-knife and pencil-guard	444,094	Jan. 6	177	45	54	38
Driffin, Jesse J., and W. P. Nelson, Idaville, Tenn. Cotton or hay elevator	448,641	Mar. 24	2249	564	54	1571
Drader, Joseph, and A. B. McKay, London, Canada; said McKay assignor to said Drader. Rotary plow	450,714	Apr. 21	1657	399	55	330
Drainage Construction Company. (See Waring, George E., Jr., assignor.)						
Drake, Edwin L., Winchester, Tenn. Ice-cream freezer	458,543	Aug. 25	2636	642	56	1055
Drake, George W., assignor of one-half to W. S. Lane, Cleveland, Ohio. Friction-clutch	448,777	Mar. 24	2470	617	54	1614
Drake, Henry T., Wadesborough, N. C. Barrel-making machine	452,666	May 19	1973	495	55	963
Drake, I. N. (See Young and Robinson, assignors.)						
Drake, James H., St. Paul, Minn. Composition paving-block	451,466	May 5	33	8	55	585
Drake, Thomas F. (See Martini and Drake.)						
Drake, William H., Hackettstown, N. J. Steam-boiler	464,065	Dec. 1	89	23	57	1154
Draper, Alvin L., assignor to J. B. Handy, Ellsworth, Kans. Feed-water heater	462,631	Nov. 3	643	163	57	675
Draper, Eben S., assignor to G. Draper & Sons, Hopedale, Mass. Support for spinning-spindles	447,400	Mar. 3	206	54	54	1157
Draper, Francis M., assignor of one-half to G. Elder, Dana, Ind. Measuring-faucet	458,701	Sept. 1	238	57	56	1111
Draper, Frederick G., St. Paul, Minn. Combined hinge and adjustable clamp	453,627	June 9	712	184	55	1291
Draper, George O., Hopedale, Mass. Ring-rail	465,247	Dec. 15	1969	503	57	1529
Draper, George O., assignor to G. Draper & Sons, Hopedale, Mass. Loom-shuttle	454,796	June 23	2455	631	55	1638
Draper, Jason F., Ashland, N. H. Ball-catcher's glove	459,441	Sept. 15	1414	354	56	1357
Draper, Jason F., Ashland, N. H. Base-ball catcher's glove or mitten	461,819	Oct. 27	2088	515	57	421
Draper, John, and A. Holmgren, assignors of one-half to H. R. Mount and J. Barnes, Brooklyn, N. Y. Incrustation-preventive	453,882	June 9	1078		55	1360
Draper & Sons, George. (See Chappell, Charles A., assignor.)						
Draper & Sons, George. (See Draper, Eben S., assignor.)						
Draper & Sons, George. (See Draper, George O., assignor.)						
Draper & Sons, George. (See Draper, William F., assignor.)						
Draper & Sons, George. (See Draper and Durkin, assignors.)						
Draper & Sons, George. (See Draper and Northrop, assignors.)						
Draper & Sons, George. (See Getchell, Charles E., assignor.)						
Draper & Sons, George. (See Green, Daniel J., assignor.)						
Draper & Sons, George. (See Mayor, Thomas, assignor.)						
Draper & Sons, George. (See McCarty, Charles, assignor.)						
Draper & Sons, George. (See Northrop, James H., assignor.)						
Draper & Sons, George. (See Peckham, James M., assignor.)						
Draper & Sons, George. (See Rhoades, Alonzo E., assignor.)						
Draper & Sons, George. (See Richardson, John S., assignor.)						
Draper & Sons, George. (See Speakman, Thomas H., assignor.)						
Draper, William F. (See Darling, Edwin A., assignor.)						
Draper, William F. (See White, Rollin, assignor.)						
Draper, William F., assignor to G. Draper & Sons, Hopedale, Mass. Loom-shuttle	454,797	June 23	2457	631	55	1639
Draper, William F., Hopedale, and D. Durkin, Grafton, assignors to G. Draper & Sons, Hopedale, Mass. Loom	454,564	June 23	2083	537	55	1560
Draper, William F., and J. H. Northrop, assignors to G. Draper & Sons, Hopedale, Mass. Loom	462,919	Nov. 10	1112	290	57	775
Draper, William F., E. S. Stimpson, and J. H. Northrop, assignors to Dutcher Temple Company, Hopedale, Mass. Loom-temple	464,193	Dec. 1	287	70	57	1189
Drawbaugh, Daniel, Eberly's Mill, Pa., assignor to M. Marx, Brooklyn, N. Y. Pneumatic tool	458,291	Aug. 25	2234	546	56	978
Drawbaugh, Daniel, Eberly's Mill, Pa., assignor, by mesne assignments, to Pneumatic and Electric Tool Company, of New Jersey. Pneumatic tool for rock-cutting	464,820	Dec. 8	1252	517	57	1383
Drawbaugh, Daniel, Eberly's Mill, Pa., assignor to Pneumatic and Electric Tool Company, of New Jersey. Pneumatic tool for rock-cutting	464,821	Dec. 8	1256	314	57	1383
Dredge, Albert H., assignor of one-half to J. C. Goodrich, Detroit, Mich. Hame-tug	451,891	May 5	674	170	55	707
Drees, John, Little Rock, Ark. Door-check	449,618	Mar. 31	3838	901	54	1879
Dreesman, Udo, and S. H. Puterbaugh, Tremont, Ill. Scaldier	458,603	Sept. 1	352	92	56	1138
Dreher, Emil, New York, N. Y. Magazine fire-arm	465,248	Dec. 15	1970	503	57	1529
Dreisörner, Jacob, St. Louis, Mo. Duplex eccentric-valve for heaters, &c	453,109	May 26	2699	680	55	1113
Dreisörner, Jacob, St. Louis, Mo. Valve	459,271	Sept. 8	1134	277	56	1293
Drennen, Joseph O., Des Moines, Iowa. Flue-cleaner	464,788	Dec. 8	1214	302	57	1375
Dresskell, William M., Brainerd, Minn. Electric motor	445,499	Jan. 27	2403	627	54	494
Dressler, Charles E. (See Friedburg, Ludwig H., assignor.)						
Drew, Charles W., and E. R. Francis, Minneapolis, Minn.; said Francis assignor to said Drew. Electric heater	454,979	June 30	2812	715	55	1711
Drew, Charlie L., Dubberly, La. Combined plow, harrow, and cultivator	464,602	Dec. 8	911	224	57	1319
Drew, George T., Omaha, Neb. Sand-box for cars	458,621	Sept. 1	115	26	56	1088
Drew, Henry P., New York, N. Y. Insulating swing-joint	451,300	Apr. 28	2590	639	55	527
Drew, Laura S. (See Slaughter, Triplett L., assignor.)						
Drew, Oscar F., Nowburyport, Mass. Can for cement	445,832	Feb. 3	534	130	54	616
Drew, William W. (See Webster and Drew.)						
Drey, Oscar, Manchester, England. Apparatus employed in the cutting of weft pile fabrics	445,620	Feb. 3	161	43	54	543
Drey, Oscar, Manchester, England. Apparatus employed in cutting weft pile fabrics	450,692	Apr. 21	1626	390	55	333

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Dreher, Robert, Halle-on-the-Saale, Prussia, Germany. Apparatus for the manufacture of lamp-black	444,315	Jan. 6	523	{ 136 137 }	54	105
Dreyer, William C., trustee. (See Rothermel, Curtis J., assignor.)						
Driller, John H., Los Angeles, Cal. Separator	454,940	June 30	2740	698	55	1697
Drinker, Robert W., Kilbourn City, Wis. Car-mover	455,035	June 30	2914	741	55	1731
Driscoll, Timothy, assignor of one-half to G. L. Hunt, Minneapolis, Minn. Self-lubricating electric trolley	458,785	Sept. 1	357	86	56	1133
Driver, Charles H., assignor to F. D. Aiken and A. A. Rowland, Brunswick, Ga. Wrench	449,793	Apr. 7	237	60	55	48
Driver, John, San Leandro, Cal. Vehicle-wheel	458,999	Sept. 8	703	173	56	1210
Drolet, Elzear. (See Catudal and Drolet.)						
Drom, Fred, <i>et al.</i> (See Dunn, John P., assignor.)						
Drosten, Frederick W. (See Murnane and Drosten.)						
Drosten, Frederick W. (See Tracy, Milton S., assignor.)						
Drummer, Peter, Corning, N. Y. Apparatus for shaking dice	455,390	July 7	150	38	56	32
Drummond, George, Philadelphia, Pa. Chart for drafting patterns for garments	451,553	May 5	102	39, 40	55	610
Drummond, Ward B., <i>et al.</i> (See Westerfield, Newton C., assignor.)						
Drury, Alfred C., assignor of one-half to M. N. Ralph, Canton, N. Y. Sewer-trap	452,750	May 19	2116	532	55	991
Drury, Clinton H. (See Creighton and Drury.)						
Drury, Clinton H., Hartford, Ohio. Cash-register	446,330	Feb. 10	1370	{ 333 334 }	54	783
Drury, F. E. (See Robinson, Darius S., assignor.)						
Drury, Francis E., and O. C. Clark, Cleveland, Ohio. Hinge for school-desk seats	463,622	Nov. 24	2245	591	57	1011
Dryden, George J., Brussels, Mo. Carrying-belt for harvesters	463,110	Nov. 10	1417	366	57	836
Drysdale, George A., <i>et al.</i> (See Yates, Alexander R., assignor.)						
Drysdale, William A., Philadelphia, Pa. Electric display-burner for oil-lamps	453,041	May 26	2579	652	55	1089
Du Bois, Frederick N. (See Renton, George W., assignor.)						
Du Bois, Henry L., assignor to Standard Hub Company, Limited, Philadelphia, Pa. Sea-soning hub-blocks, spokes, &c.	461,329	Oct. 13	1212	{ 308 309 }	57	242
Du Fresno, Harry, Portland, Oreg. Shade-adjuster	449,579	Mar. 31	3753	942	54	1863
Du Laney, Charles F. (See Du Laney, James W. and C. F.)						
Du Laney, George L., deceased, New York, N. Y.; J. W. Du Laney administrator. Pneumatic-railway system	450,700	Apr. 21	1639	{ 393 394 }	55	336
Du Laney, James W., administrator. (See Du Laney, George L.)						
Du Laney, James W., Canton, Ohio. Circuit-closer for clock-winding mechanism	461,424	Oct. 20	1382	349	57	281
Du Laney, James W. and C. F., Canton, Ohio. Electric clock-winder	461,423	Oct. 20	1381	349	57	281
Du Shane, James, South Bend, Ind. Curry-comb	450,562	Apr. 14	1375	339	55	271
Du Shane, James, South Bend, Ind. Curry-comb	455,182	June 30	3176	804	55	1782
Du Shane, James, South Bend, Ind. Wrench	455,183	June 30	3176	805	55	1782
Duane, James J., Hartford, Conn. Match-box	460,118	Sept. 29	2481	619	56	1573
Dubbs, Jesse A., assignor of three-fourths to S. M. Boyd, Allegheny, Pa. Furnace for the manufacture of gas	464,934	Dec. 8	1411	356	57	1414
Dubé, Cyprien, New York, N. Y. Steam or hot-water heater	451,813	May 5	559	138	55	685
Dubé, Edward A., Brooklyn, N. Y. Sand, emery, or analogous paper or cloth	449,930	Apr. 7	429	107	55	84
Dubey, Edward A., assignor of one-half to J. Langan, Brooklyn, N. Y. Sealed reply-postal	448,478	Mar. 17	1982	{ 497 498 }	54	1513
Dubiel, Julius, assignor of one-third to E. Stein, Waukegan, Ill. Manufacture of glucose or sugar	456,481	July 21	1876	495	56	374
Dubois, Austin A., assignor to M. Hart, Brooklyn, N. Y. Illuminated clock	448,510	Mar. 17	2027	507	54	1522
Dubrule, Joseph D. O., Montreal, Canada. Expanding mandrel	447,667	Mar. 3	629	156	54	1237
Duc, Henry A., Jr., Charleston, S. C. Grinding-mill	451,111	Apr. 28	2265	561	55	465
Duc, Henry A., Jr., Charleston, S. C. Grinding-mill	451,112	Apr. 28	2268	562	55	465
Duc, Henry A., Jr., Charleston, S. C. Grinding-mill roller-mounting	451,392	Apr. 28	2717	675	55	551
Duchemin, William, Newburyport, Mass., assignor of one-half to H. W. Blair, Manchester, N. H. Shuttle for sewing-machines	459,814	Sept. 22	2015	505	56	1477
Duchemin, William, Newburyport, Mass., assignor of one-half to H. W. Blair, Manchester, N. H. Cop	460,745	Oct. 6	342	84	57	68
Duchemin, William, Newburyport, Mass., assignor of one-half to H. W. Blair, Manchester, N. H. Thread-winding machine	463,142	Nov. 17	1468	{ 381 382 }	57	853
Duck, Joseph T., Geneva, N. Y. Hoof-pad	445,050	Jan. 20	1729	445	54	354
Duckham, Frederic E., London, England. Pneumatic grain-conveyer	462,539	Nov. 3	502	123	57	647
Duckwall, Elias R., Bantam, Ohio. Automatic safety-stop for inclined cable railways	454,858	June 30	2566	660	55	1665
Ducommun, Armand, Chippewa Falls, Wis. Watch-regulator	460,957	Oct. 13	648	167	57	134
Dudden, Alfred, Santa Barbara, Cal. Knife-sharpener	444,522	Jan. 13	853	222	54	178
Dudden, Alfred, San Francisco, Cal. Pneumatic door-check	456,945	Aug. 4	36	8	56	539
Dudgeon, Richard H., and J. Weeks, New York, N. Y.; said Weeks assignor to said Dudgeon. Tube-expander	459,176	Sept. 8	997	244	56	1266
Dudley, Mason A., Buffalo Forge, Va. Railway-frog	447,235	Feb. 24	2865	711	54	1094
Dudley, Robert M., Metamora, Mich. Band-cutter and feeder	466,225	Dec. 29	3559	911	57	1853
Dudley, W. W., <i>et al.</i> (See Brown, Harrison, B., assignor.)						
Dudley, Walter J. (See Menns and Dudley.)						
Dudley, Walter J., Everett, Mass. Independent electric clock	447,105	Feb. 24	2612	649	54	1047
Dudley, Walter J., Somerville, Mass. Independent electric clock	465,655	Dec. 22	2642	674	57	1666
Dudley, William W., <i>et al.</i> (See Brown, Harrison B., assignor.)						
Dudley, William W., <i>et al.</i> (See Cottrell, George R., assignor.)						
Dudoire, Narcise, Watervliet, N. Y., assignor, by mesne assignments, to M. E. Van Osdel, Chicago, Ill. Stuffing-box	464,935	Dec. 8	1412	356	57	1414
Dueber, John C. (See Kinehan, Charles R., assignor.)						
Dueber, John C., Newport, Ky. Watch-movement box	465,843	Dec. 29	2930	749	57	1732
Duener, Louis, Hamilton, Ohio. Open-front stove	460,119	Sept. 29	2482	619	56	1573
Duennner, Henry, assignor of one-half to F. Bleiler, Boston, Mass. Commutator for electric motors	449,774	Apr. 7	202	51, 52	55	41
Duff Manufacturing Company. (See Barrett, Josiah, assignor.)						
Duffey, Frank B., Fort Scott, Kans., and A. L. Kitzelman, Ridgeville, Ind. Fence	457,044	Aug. 4	165	41	56	565
Duffield, James, Ashfield, England. Apparatus for cambering rails	447,051	Feb. 24	2533	{ 629 630 }	54	1030
Duffy, Alexander M. (See Polley, William, assignor.)						
Duffy, Joseph, Paterson, N. J. Spindle supporting and driving device for spinning-frames	445,500	Jan. 27	2404	628	54	494
Dugan, James F., St. Louis, Mo. Vehicle-brake	459,272	Sept. 8	1136	{ 277 278 }	56	1294
Dugan, James F., and T. Sauerbrunn, St. Louis, Mo. Ambulance	459,273	Sept. 8	1138	278	56	1294
Dugan, Rees W. (See King, John H., assignor.)						
Duggan, John A., Quincy, Mass. Bracket for supporting electric conductors	465,365	Dec. 15	2179	558	57	1567

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Duguid, John, <i>et al.</i> (See Eggeman, Frederick J., assignor.)						
Duguid, John, <i>et al.</i> (See Eggeman, Godfrey S., assignor.)						
Duhamel, Paul. (See Smither and Duhamel.)						
Duhart, Thomas H. (See Smith and Duhart.)						
Dührkop, Fritz, New York, N. Y. Baker's oven	465,923	Dec. 29	3060	{ 784 785 }	57	1758
Duisberg, Carl, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany.						
Violet dye	447,302	Mar. 3	29	-----	54	1123
Duisberg, Carl, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany.						
Orange dye	447,303	Mar. 3	29	-----	54	1124
Duke, Harry K., Cumberland, Md. Combined pen-wiper and paper-weight	458,156	Aug. 25	2000	518	56	935
Dula, Robert B., St. Louis, Mo. Apparatus for handling tobacco	460,001	Sept. 22	2296	576	56	1530
Dula, Robert B., St. Louis, Mo. Machine for cleaning tobacco-racks	460,002	Sept. 22	2297	576	56	1530
Dula, Robert B., St. Louis, Mo. Tobacco-racking device	460,003	Sept. 22	2299	576	56	1531
Duley, Benjamin, assignor of two-thirds to W. H. Smith and E. E. Stults, Huntington, Ind. Fence-making machine	454,260	June 16	1613	424	55	1472
Dummer, Bessie P. (See Dummer, Samuel R., assignor.)						
Dummer, Samuel R., New York, N. Y. Package-carrier	448,210	Mar. 17	1531	392	54	1428
Dummer, Samuel R., New York, assignor to B. P. Dummer, Flushing, N. Y. Package-carrier						
	457,499	Aug. 11	958	243	56	718
Dunavan, Emma S., assignor of one-half to W. J. Dunavan, Dayton, Ill. House-door letter-box	450,226	Apr. 14	860	216	55	173
Dunavan, William J. (See Dunavan, Emma S., assignor.)						
Dunbar, Henry D., North Hartland, Vt. Extension smoke-stack for locomotives	447,106	Feb. 24	2615	649	54	1047
Dunbar, William, Larabee, Pa., assignor of one-half to J. J. Newman, Buffalo, N. Y. Saw	465,969	Dec. 29	3139	805	57	1772
Dunbar, William O., Altoona, Pa. Dust and lubricant guard for journal-boxes	448,211	Mar. 17	1532	392	54	1428
Duncan, Amos R., <i>et al.</i> (See Brooks, Benjamin F. C., assignor.)						
Duncan, Charles W., assignor of eleven-twentieths to J. A. Baumgartner, St. Louis, Mo. Car-brake	463,598	Nov. 17	2198	579	57	993
Duncan, Daniel O., Greenfield, Ohio. Wagon end-gate	460,851	Oct. 6	484	123	57	96
Duncan, George, Liverpool, and J. Salmon, Manchester, England. Apparatus for finishing printed sheets of paper						
	445,938	Feb. 3	691	168	54	648
Duncan, George S., Melbourne, Victoria. Cable-gripper	462,378	Nov. 3	257	63, 64	57	600
Duncan, George S., Melbourne, Victoria. Cable-pulley	462,379	Nov. 3	259	64	57	600
Duncan, Harrie E., Newtonville, assignor to American Waltham Watch Company, of Massachusetts. Watch-movement box						
	456,358	July 21	1670	441	56	336
Duncan, James, Selby, England. Treating molasses to improve its flavor	455,295	June 30	3369	-----	55	1820
Duncan, John B., Fayette, Mo. Barrel-rack	453,079	May 26	2651	668	55	1102
Duncan, Joseph M., Silver Springs, N. Y. Evaporating-pan	460,702	Oct. 6	280	68	57	55
Duncan, Robert P. (See Clayton and Duncan.)						
Duncan, Sylvester F., Chicago, Ill. Stay for wire fences	451,033	Apr. 28	2161	534	55	443
Duncan, Thomas J., and D. McMann, Leadville, Colo. Pipe-wrench	446,592	Feb. 17	1776	438	54	877
Duncan, William, Allegheny, Pa. Electric-car trolley	454,536	June 23	2048	530	55	1562
Duncan, William, Allegheny, Pa. Self-lubricating trolley-wheel	463,733	Nov. 24	2424	635	57	1044
Duncan, Wilson, assignor of one-half to G. Carson, Council Bluffs, Iowa. Chin rifle-rest	455,827	July 14	873	229	56	176
Dunckel, John F. (See Quin and Dunckel.)						
Dungan, Jesse H., Harrisville, Ohio. Grapple	454,335	June 16	1723	449	55	1493
Dunham, Benjamin F., Brockton, Mass. Skiving-machine	452,996	May 26	2515	637	55	1076
Dunham, Charles H., <i>et al.</i> (See McGlinchey, Charles E., assignor.)						
Dunham, Charles S., Waterbury, Conn. Sectional odorless kettle or steamer	450,328	Apr. 14	1029	254	55	204
Dunham, Curtis, assignor of one-half to L. E. Stein, New York, N. Y. Device adapted for the attachment of suspenders						
	458,544	Aug. 25	2638	642	56	1055
Dunham, Frank, <i>et al.</i> (See Toucey, Ferris D., assignor.)						
Dunham, Ichabod P., Woodbridge, N. J. Bread-cutter	456,268	July 21	1526	405	56	309
Dunham, Joseph M., and J. McKemie, Holyoke, assignors to Metallic Drawing Roll Company, Indian Orchard, Mass. Drawing-head for fibrous material						
	460,083	Sept. 22	2423	606	56	1555
Dunham, Joseph W., Englewood, G. W. and F. P. Kisinger, Danville, Ill. Dumping-wagon	449,212	Mar. 31	3134	790	54	1749
Dunham Manufacturing Company. (See Hix, Oliver P., assignor.)						
Dunham Manufacturing Company. (See Holmes, William W., assignor.)						
Dunlap, Charles H. (See Dunlap, Steward, assignor.)						
Dunlap, Edward W., assignor of one-half to G. A. Maxwell, New Castle, Del. Sash-fastener	455,708	July 7	667	176	56	129
Dunlap, James, Philadelphia, Pa. Manufacturing figured pile carpets	446,141	Feb. 10	1033	{ 254 255 }	54	719
Dunlap, Steward, assignor of one-half to C. H. Dunlap, Ashley, Pa. Oil-can	465,467	Dec. 22	2328	598	57	1607
Dunlap, Thomas, Toledo, Ohio. Propelling-wheel	461,669	Oct. 20	1834	453	57	365
Dunlop, John B., Belfast, Ireland. Wheel-tire for cycles. (Reissue)	11,153	Mar. 24	2952	748	54	1707
Dunlop, John B., Belfast, assignor to Pneumatic Tyre and Booth's Cycle Agency, Limited, Dublin, Ireland. Tire for vehicle-wheels						
	453,550	June 2	582	148	55	1258
Dunlop, John B., Belfast, assignor to Pneumatic Tyre and Booth's Cycle Agency, Limited, Dublin, Ireland. Air-valve						
	455,899	July 14	970	253	56	194
Dunn, Adam, assignor of two-thirds to S. Dietrich and F. D. Palmer, Galt, Canada. Rake	458,270	Aug. 25	2203	539	56	972
Dunn, Broady. (See Crommie and Dunn.)						
Dunn, Eli H., Elma, Iowa. Preparing flour	449,794	Apr. 7	238	-----	55	48
Dunn, George F., assignor of one-half to F. L. Stone, Brockton, Mass. Welt-making machine						
	458,046	Aug. 18	1835	478	56	895
Dunn, John P., Beatrice, Nebr., assignor to J. E. Field, F. Lynde, S. T. Hnebner, C. T. White, S. W. Wadsworth, W. H. Stryker, F. Drom, T. H. Fitton, J. F. Huntling, D. Althen, W. A. Watson, and L. Achenback. Corn harvester and husker	448,417	Mar. 17	1888	{ 474 475 }	54	1496
Dunn, Lawrence, Fort Smith, Ark. Electric signal for railway-trains	460,958	Oct. 13	649	{ 167 168 }	57	134
Dunn, Michael J., and W. H. Montgomery, assignors to Ohio Tool Company, Columbus, Ohio. Bench-plane	461,166	Oct. 13	944	244	57	188
Dunn, Robert N. (See Kerstau, John F., assignor.)						
Dunn, William A., Beauregard, Miss. Cabinet	453,883	June 9	1079	{ 281 282 }	55	1360
Dunn, William J., Emsworth, Pa. Extensible brace for excavations	456,649	July 28	2155	571	56	437
Dunnachie, James, Glenboig, Scotland. Brick-kiln	462,036	Oct. 27	2423	601	57	487
Dunne, Hugh T., New York, N. Y. Machine for calcimining or removing calcimine	459,486	Sept. 15	1485	373	56	1370
Dunne, Thomas P., New York, N. Y. Artificial-stone laundry-tub	457,111	Aug. 4	275	71	56	586
Dunnell, Frederick W. (See Bean, Dunnell, and Noyes.)						
Dunnett, William W., assignor of one-half to N. M. Rittenhouse, Baltimore, Md. Composition of matter	450,560	Apr. 14	1373	-----	55	271

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Dunning, James G., <i>et al.</i> , executors. (See Merritt, Charles E.)	450,739	Apr. 21	1684	408	55	344
Dunning, Theodore R., Middletown, N. Y. Metallic railway-tie	460,912	Oct. 6	587	149	57	115
Dunott, Joseph, assignor of one-fourth to F. J. Richards, Philadelphia, Pa. Cable-crossing.	449,284	Mar. 31	3249	{ 823 824 }	54	1771
Dunsmuir, Hugh, Govau, Scotland. Multiple expansion-engine	452,100	May 12	1061	268	55	782
Dunston, William M., Marion, Ill. Back-band for harness	444,378	Jan. 6	614	158	54	121
Duplessis, Elouild, assignor of one-half to J. Laliue and E. A. Marchildon, St. Hyacinthe, Canada. Weighing-scales for railway-cars						
Duplex Printing Press Company. (See Cox, Joseph L., assignor.)						
Duplex Printing Press Company. (See Warner, Austin P., assignor.)						
Duplex Rotary Engine Company. (See Meyer, Frederick, assignor.)						
Duplex Rotary Engine Company. (See Meyer, Kiehl, and Grant, assignors.)						
Duplex Street Railway Track Company. (See Gibbon, Thomas H., assignor.)						
Dupuy, Victor S., and F. J. Fortier, Syracuse, N. Y. Fifth-wheel	452,997	May 26	2517	637	55	1077
Durand, David L., assignor to Osborne & Cheesman Company, Birmingham, Conn. Buckle.	451,758	May 5	487	120	55	670
Durand, Henry S., Rochester, N. Y. Portable siphon	453,628	June 9	713	184	55	1291
Durand, Frank S., Peoria, Ill. Gas or oil burner	455,483	July 7	289	73	56	58
Durand, Huguenin & Co., L. (See Mohler and Mayer, assignors.)						
Durand, Jean P. (See D��vigne and Durand.)						
Durand, Jules V., St. Chamond, France. Metal frame for saws	458,827	Sept. 1	436	105	56	1148
Durant, Payette B. (See King, John H., assignor.)						
Durfee, Bradford K., <i>et al.</i> (See Hartley, Charles J., assignor.)						
Durfee, William F., and N. B. Wittman, Birdsborough, Pa. Apparatus for removing gases from molten metal	448,944	Mar. 24	2717	686	54	1661
Durfee, William F., and N. B. Wittman, Birdsborough, Pa. Vacuum-casting apparatus	448,945	Mar. 24	2720	686	54	1662
Durham, George H., <i>et al.</i> (See Low, Philip M., assignor.)						
Durham, Lillie E., Brooklyn, N. Y. Baby-jumper	452,998	May 26	2518	637	55	1077
Durie, David E., and A. Begg, Seattle, Wash. Vending-machine	458,682	Sept. 1	209	49	56	1105
Durie, David E., and A. Begg, Seattle, Wash. Vending-machine	458,681	Sept. 1	211	49	56	1106
Duringer, Robert E. (See Hale and Duringer.)						
Durkee, George B., assignor to Lyon & Healy, Chicago, Ill. Tail-piece for musical instruments	447,946	Mar. 10	1107	278	54	1335
Durkee, George B., assignor to Lyon & Healy, Chicago, Ill. Banjo	447,947	Mar. 10	1108	278	54	1335
Durkee, George B., assignor to Lyon & Healy, Chicago, Ill. Zither	447,948	Mar. 10	1111	279	54	1335
Durkin, Daniel. (See Draper and Durkin.)						
Durnbaugh, Joseph A., Washington, D. C. Registering beer-faucet	450,561	Apr. 14	1373	{ 338 339 }	55	271
Durner, Edward G., Philadelphia, Pa. Musical instrument	457,707	Aug. 11	1265	327	56	778
Durr, Albert W., Philadelphia, Pa. Machine for making ornamental cord	449,038	Mar. 24	2859	727	54	1690
D��rr, Fritz, Munich, Germany. Apparatus for the reduction of petroleum into gas	445,982	Feb. 10	760	186	54	671
D��rr, Ludwig, Bremen, Germany. Oil-vapor lamp	453,440	June 2	419	109	55	1226
Durst, William, Brooklyn, N. Y. Socket for curtain-poles and the like	455,435	July 7	220	56	56	45
Duryea, Charles E., Washington, D. C. Vessel holder or support for lamp-stoves	452,897	May 26	2346	593	55	1044
Duryea, Charles E., Rockaway, N. J., assignor to Rouse-Duryea Cycle Company, Peoria, Ill. Wheel for velocipedes	459,699	Sept. 15	1833	461	56	1436
Duryea, Charles E., assignor to E. H. Bond, Washington, D. C. Heating attachment for gas-burners	465,623	Dec. 22	2597	659	57	1657
Duryea, Edgar E., <i>et al.</i> (See Griffiths, Herbert M., assignor.)						
Duryea, George, <i>et al.</i> (See Griffiths, Herbert M., assignor.)						
Duryea, Louis T., <i>et al.</i> (See Griffiths, Herbert M., assignor.)						
Duryee, George, Orange, N. J. Device for rendering logs buoyant	447,668	Mar. 3	630	157	54	1237
Dustin, Frank J., assignor to H. E. Webster and A. J. Lane, Manchester, N. H. Luggage-carrier for bicycles	466,064	Dec. 29	3316	846	57	1806
Dutcher, George L., Douglas, and C. W. Boyle, Bradley, assignors to C. H. Adams and E. T. Van Ostrand, Allegan, Mich. Feed-regulator	449,580	Mar. 31	3754	{ 942 943 }	54	1863
Dutcher Temple Company. (See Brous, Lewis F., assignor.)						
Dutcher Temple Company. (See Draper, Stimpson, and Northrop, assignors.)						
Dutcher Temple Company. (See Littlefield, Charles A., assignor.)						
Dutcher Temple Company. (See Sadler, William H., assignor.)						
Dutcher Temple Company. (See Stimpson, Edward S., assignor.)						
Dutcher, William L., Rome, N. Y. Bolt-cutter	448,324	Mar. 17	1738	439	54	1468
Dutto, Peter, Brooklyn, N. Y. Capsuling-machine	460,321	Sept. 29	2798	697	56	1634
Dutton, Albert, Watertown, Mass. Torch	462,692	Nov. 10	753	197	57	704
Dutton, Chauncey N., Pittsburg, Pa. Balance-lock for water-ways	457,528	Aug. 11	991	{ 254 255 }	56	725
Dutton, Chauncey N., assignor to Fuel Gas and Manufacturing Company, Pittsburg, Pa. Gas-meter	459,328	Sept. 8	1218	{ 298 299 300 }	56	1311
Dutton, Chauncey N., assignor to Fuel Gas and Manufacturing Company, Pittsburg, Pa. Fluid-meter	460,084	Sept. 22	2425	{ 606 607 }	56	1555
Dutton, George G., and J. Lee, Chester, Pa. Auger-handle	451,867	May 5	637	159	55	699
Dutton, Rufus, New York, N. Y. Machine for grinding mower-knives	457,079	Aug. 4	233	59, 60	56	578
Duval, Alexander, and H. Nelson, Paris, France. Covering for the bulbs or globes of electric or other lamps	462,477	Nov. 3	406	99	57	628
Duval Automatic Switch Company. (See Duval, Joseph N. and C. F., assignors.)						
Duval, Charles F. (See Duval, Joseph N. and C. F.)						
Duval, George R., assignor to Benicia Agricultural Works, Benicia, Cal. Traction-wheel	450,484	Apr. 14	1274	311	55	249
Duval, Henry R., <i>et al.</i> (See Lasserre, Charles H., assignor.)						
Duval, Joseph N. and C. F., assignors to Duval Automatic Switch Company, Boston, Mass. Switch-operating mechanism	444,426	Jan. 13	699	{ 182 183 }	54	146
Duvall, Gertrude. (See Sloane, John D., assignor.)						
Duvall, Grafton H., assignor to himself and P. R. Wells, Philadelphia, Pa. Sash-cord pliers	464,860	Dec. 8	1309	328	57	1395
Duxbury, John, assignor to G. & R. Dewhurst, Manchester, England. Machine for marking folded woven goods with trade-marks, &c.	448,212	Mar. 17	1534	393	54	1428
Dwelle, Charles W., Denver, Colo. Wooden pipe	441,339	Jan. 6	558	144	54	111
Dwelle, Charles W., Denver, Colo. Coupling-shoe	444,340	Jan. 6	560	144	54	111
Dwelly, Charles H., West Hanover, assignor of one-half to S. N. Turner, Hanover, Mass. Wagon-jack	457,309	Aug. 4	613	161	56	647
Dwight, William B., Poughkeepsie, N. Y. Machine for cutting or slicing minerals	445,983	Feb. 10	761	{ 186 187 188 189 190 }	54	671
Dwyer, John T., Montreal, Canada. Combined shoulder-strap bag or knapsack	447,669	Mar. 3	632	157	54	1237

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Dwyer, John T., Montreal, Canada. Trunk.....	465,366	Dec. 15	2179	558	57	1567
Dwyer, Patrick, <i>et al.</i> (See Weeden, Charles L., assignor.)						
Dybbie, Julius A., Chicago, Ill. Clutch mechanism.....	454,261	June 16	1614	424	55	1472
Dye, William H., Minneapolis, Minn., assignor of three-fourths to E. J. Patnode and F. K. Wade. Truck.....	454,460	June 23	1923	502	55	1539
Dye, William H., Minneapolis, Minn., assignor of three-fourths to E. J. Patnode and F. K. Wade. Hand-truck.....	454,461	June 23	1924	502	55	1539
Dyer, Charles M., Cloverdale, Ind. Rail-support.....	461,741	Oct. 20	1946	483	57	386
Dyer, Frank E. (See Hagen and Dyer.)						
Dyer, James M., San Francisco, assignor of one-fourth to A. Sciaroni, Newtown, Cal. Wave-power.....	460,371	Sept. 29	2877	718	56	1649
Dyer, John, and C. O. Malmgren, Chicago, Ill.; said Malmgren assignor to said Dyer. Ticket-printing apparatus.....	464,194	Dec. 1	288	70, 71	57	1189
Dyer, Lucius, Millbridge, Me. Buckle.....	462,939	Nov. 10	1156	300	57	783
Dyett, James H., Ilion, N. Y. Awning.....	448,759	Mar. 24	2441	611	54	1608
Dyke, Actaeon L., Akron, Ohio. Machine for molding marbles.....	451,855	May 5	616	153	55	696
Dyke, Samuel C., assignor to American Marble and Toy Manufacturing Company, Akron, Ohio. Machine for molding marbles from plastic material.....	463,418	Nov. 17	1916	501	57	939
Dykes, Hugh J., Peralta, Cal. Pump.....	462,666	Nov. 3	691	175	57	684
Dyson, John H., Mazomanie, Wis., assignor of one-half to H. O. Wetherell, Centralia, Ill. Calipers.....	454,569	June 23	2091	539	55	1570
E. C. Atkins & Company. (See Roberts, Nate H., assignor.)						
E. Howard Watch and Clock Company. (See Smith, Frank E., assignor.)						
E. H. Pease Manufacturing Company. (See Adams, Walter G., assignor.)						
E. & H. T. Anthony & Company. (See Barker, Erastus B., assignor.)						
E. & H. T. Anthony & Company. (See Hare and Johnson, assignors.)						
E. & H. T. Anthony & Company. (See Mills, Charles, assignor.)						
E. & H. T. Anthony & Company. (See Packard, Cullen C., assignor.)						
E. & H. T. Anthony & Company. (See Spaulding, Frank M., assignor.)						
E. & H. T. Anthony & Company. (See Trueman, William, assignor.)						
E. L. Bushnell Spring Company. (See Bushnell, Edwin L., assignor.)						
E. W. Bliss Company. (See Cayley and Courtman, assignors.)						
Eaby, Jackson L., assignor of one-half to W. S. Underwood, West Chester, Pa. Wire-working tool.....	455,828	July 14	874	229	56	176
Eagan, Richard, Syracuse, N. Y. Measuring milk-can.....	444,903	Jan. 20	1487	384	54	307
Eagen, James, Wyoming, Pa. Drill.....	464,497	Dec. 8	753	184	57	1287
Eagle Lock Company. (See Roche, James, assignor.)						
Eagle Pencil Company. (See McIntyre, Frank, assignor.)						
Eagleton, Joseph, assignor of one-half to W. Welsh, Orient, Ohio. Cutter and feeder for thrashing-machines.....	450,098	Apr. 7	660	167 168	55	129
Eames, Charles J., New York, N. Y. Process of and apparatus for the reduction of ore.....	455,458	July 7	251	63, 64	56	50
Eames, Elisha D., Watertown, N. Y., assignor to Consolidated Brake Adjuster Company, Chicago, Ill. Slack-adjuster for brakes.....	453,062	May 26	2617	661	55	1096
Eames, Elisha D., Watertown, N. Y., assignor to Consolidated Brake Adjuster Company, Chicago, Ill. Automatic adjuster for brakes.....	463,716	Nov. 24	2400	629	57	1039
Eames, Ryland W., assignor of one-half to C. H. Brown, Denver, Colo. Oilier for reciprocating engines.....	453,580	June 2	627	160	55	1265
Eames Vacuum Brake Company. (See Massey, Albert P., assignor.)						
Earl, Edwin T., Los Angeles, Cal. Ventilator and combined ventilator and refrigerator car.....	465,615	Dec. 22	2583	656	57	1654
Earle, Charles R., <i>et al.</i> (See Hollingworth, Louis, assignor.)						
Earle, George H., Jr., <i>et al.</i> (See La Roche, Frederick A., assignor.)						
Earle, James T., Covington, J. J. Good and H. Redmon, Cynthiana, Ky. Machine for folding strips of paper, &c.....	465,522	Dec. 22	2426	619	57	1626
Earle, Morris, trustee. (See Schneider, William E., assignor.)						
Earle, Salyer R., Belleville, Canada. Steam and air injector for furnaces.....	447,563	Mar. 3	482	118	54	1208
Earle, Salyer R., Belleville, Canada. Combined air injector and exhauster.....	453,831	June 9	1015	264 265	55	1349
Earle, Theodore O., Binghamton, N. Y. Lace-hole cutter for belts.....	457,708	Aug. 11	1266	327	56	779
Earle, William, Boston, Mass. Cooking-rack.....	446,855	Feb. 24	2194	546	54	969
Earle, William L., <i>et al.</i> (See Park, Joseph, Jr., assignor.)						
Earley, Thomas H. (See Nimmo, Archibald, assignor.)						
Earll, Frederick D., assignor of one-half to J. F. Wollensak, Chicago, Ill. Marking letters to indicate that they have been copied.....	458,225	Aug. 25	2116	549	56	957
Earnest, Marcus B., Fort Madison, Iowa. Nut-lock.....	461,605	Oct. 20	1725	422	57	345
Earngey, Thomas R. (See Ricker, Henry E., assignor.)						
Earnhart, Frank, Fairbury, Ill. Hay-loader.....	451,467	May 5	34	9	55	585
Earp, Joseph. (See Swinden and Earp.)						
Easley, William A. (See Warren and Easley.)						
Eason, Thomas G., Junction City, Tex. Plow.....	446,965	Feb. 24	2384	593	54	1003
Eason, William J., Woodbury, Ga. Planter and fertilizer-distributer.....	462,759	Nov. 10	852	223	57	724
East End Marble Company. (See Lang, Matthew, assignor.)						
Easte, Charles H., Arlington, Mass. Combined chair and desk.....	446,632	Feb. 17	1833	454	54	888
Easterbrook, Thomas S., St. Paul, Minn. Signal-lantern.....	445,606	Feb. 3	138	36	54	538
Easterbrook, William, Philadelphia, Pa. Hame.....	452,600	May 19	1872	471	55	944
Eastern Electrical Manufacturing Company. (See Gould, Claude C., assignor.)						
Eastern Paper Bag Company. (See Purvis, William B., assignor.)						
Eastin, Arthur L. (See Dick and Eastin.)						
Eastman, Joseph, Chicago, Ill. Fire-proof building material.....	457,984	Aug. 18	1743	458	56	877
Eastman, Joseph, Chicago, Ill. Floor-arch for fire-proof buildings.....	457,985	Aug. 18	1745	458	56	878
Eastman, Orville D. (See Mankey and Eastman.)						
Eastman, Walter H., Indianapolis, Ind. Sales-rack for wall-paper.....	449,734	Apr. 7	141	35	55	29
Eastman, William E., Boston, Mass. Automatic valve-operating mechanism and thermostatic index and controlling device therefor.....	458,226	Aug. 25	2117	549	56	957
Eastwood, William, Leeds, and A. Ambler, Bradford, England. Apparatus for washing wool.....	460,852	Oct. 6	486	124	57	96
Easton, James W., New York, N. Y., assignor to P. M. Smith, Plainfield, N. J., and W. D. Perry, Brooklyn, N. Y. Electric-arc lamp.....	445,546	Feb. 3	27	7	54	516
Easton, James W., New York, N. Y., assignor to P. M. Smith, Plainfield, N. J., and W. D. Perry, Brooklyn, N. Y. Electric-arc lamp.....	448,418	Mar. 17	1890	475	54	1497
Easton, James W., New York, N. Y., assignor to P. M. Smith, Plainfield, N. J., and W. D. Perry, Brooklyn, N. Y. Shade for electric lights.....	449,407	Mar. 31	3488	877	54	1813
Easton, James W., New York, N. Y., assignor to P. M. Smith, Plainfield, N. J., and W. D. Perry, Brooklyn, N. Y. Support for electric lamps.....	449,902	Apr. 7	390	98	55	76

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Easton, James W., New York, N. Y., assignor to P. M. Smith, Plainfield, N. J., and W. D. Perry, Brooklyn, N. Y. Lightning-arrester	449,903	Apr. 7	391	99	55	77
Easton, Lucien F., La Crosse, Wis. Temperature-regulator. (Reissue)	11,148	Mar. 3	765	190	54	1263
Easton, William H., Washington, D. C. Roundabout	445,851	Feb. 3	561	137	54	621
Eastwick, Edward P., Jr., New York, N. Y. Toy mortar	455,184	June 30	3178	805	55	1782
Eastwick, Edward P., Jr., New York, N. Y., assignor to G. S. Eastwick, New Orleans, La. Car-coupling	454,721	June 23	2345	602	55	1617
Eastwick, Edward P., Jr., New York, N. Y., assignor to G. S. Eastwick, New Orleans, La. Car-coupling	454,722	June 23	2347	603	55	1618
Eastwick, Edward P., Jr., New York, N. Y., assignor to G. S. Eastwick, New Orleans, La. Car-coupling	454,723	June 23	2348	603	55	1618
Eastwick, George S. (See Eastwick, Edward P., Jr., assignor.)						
Eaton, Alice R., Louisville, Ky. Comb-cleaner	452,365	May 19	1496	370	55	874
Eaton & Co., George H. (See Perkins and Norcross, assignors.)						
Eaton, Edwin D., Fairfield, assignor of one-half to R. M. Fairfield, Holyoke, Mass. Hand-truck	461,820	Oct. 27	2029	515	57	421
Eaton, George H. and J. L. Patch, Boston, Mass.; said Patch assignor to said Eaton. Collapsible opera-glass	463,660	Nov. 24	2308	606	57	1022
Eaton, Howard F. (See Chase and Eaton.)						
Eaton, Howard F. (See Noyes and Eaton.)						
Eaton, Howard F., Quincy, assignor to G. W. Gregory, Boston, Mass. Signaling apparatus	455,873	July 14	931	245	56	187
Eaton, John, Stockport, England. Machine for punching holes in hats	464,117	Dec. 1	164	41	57	1168
Eaton, Joshua P., Woburn, Mass. Pattern for shoes	460,569	Oct. 6	43	10	57	10
Eaton, Marshall E., assignor of one-half to A. G. Cromer, Chicago, Ill. Combined exhaust-head and smoke-cleaner	453,143	May 26	2754	694	55	1123
Eaton & Prince Company. (See Eaton, Thomas W., assignor.)						
Eaton, Samuel, <i>et al.</i> (See Kauffert, John E., assignor.)						
Eaton, Thomas W., assignor to Eaton & Prince Company, Chicago, Ill. Hydraulic elevator	446,620	Feb. 17	1815	449	54	884
Eaton, Thomas W., assignor to Eaton & Prince Company, Chicago, Ill. Brake for elevators	446,621	Feb. 17	1817	449	54	884
Eaves, Louis S., Polkville, N. C. Motor for churns	447,670	Mar. 3	632	157	54	1237
Eberhardt, Ernest G., assignor to E. Lilly & Company, Indianapolis, Ind. Suppository	445,984	Feb. 10	776	190	54	674
Eberhardt, Frederick L. (See Eberhardt, Ulrich and F. L.)						
Eberhardt, Henry E. (See Eberhardt, Ulrich and H. E.)						
Eberhardt, Henry E. (See Eberhardt, Ulrich, H. E., and U., Jr.)						
Eberhardt, Theophilus C., Cuero, Tex. Device for handling and cleaning seed-cotton by atmospheric suction	452,552	May 19	1799	452 453 651 652	55	929
Eberhardt, Theophilus C., Cuero, Tex. Apparatus for handling cotton	460,202	Sept. 29	2611	652	56	1598
Eberhardt, Ulrich, Newark, N. J. Tool-holder	455,391	July 7	151	38	56	32
Eberhardt, Ulrich and H. E., Newark, N. J. Drilling or spinning machine	447,541	Mar. 3	452	111	54	1202
Eberhardt, Ulrich and F. L., Newark, N. J. Column drill-press	461,951	Oct. 27	2298	569 570 571	57	463
Eberhardt, Ulrich, H. E., and U., Jr., Newark, N. J. Gear-cutter or milling-machine	461,952	Oct. 27	2301	570 571	57	463
Eberhart, Adolphus. (See Beiger and Eberhart.)						
Eberhart, Lloyd, Joliet, Ill. Seed-sower	460,120	Sept. 29	2483	620	56	1573
Eberhart, Lloyd, Joliet, Ill. Seed-sower	460,121	Sept. 29	2487	620 621	56	1574
Eberle, Charles E., Columbus, Ohio. Drill-chuck	457,889	Aug. 18	1584	412	56	847
Eberle, Josef, Vienna, Austria-Hungary. Stone-protector for lithographic printing-presses	448,642	Mar. 24	2251	564 565	54	1572
Eberly, Sylvester, Ottokoe, assignor of one-half to G. Kessler, Wauseon, Ohio. Wire-fence-stay fastening	460,913	Oct. 6	588	149	57	115
Eddy, Albert. (See Lewis, Russell H., assignor.)						
Eddy, Arthur H. (See Spencer, Christopher M., assignor.)						
Eddy, Arthur H., Hartford, assignor of one-half to C. M. Spencer, Windsor, Conn. Slotting attachment for screw-machines	447,010	Feb. 24	2450	610 611	54	1015
Ebert, Gustav, assignor to Farbwerke, vormals Meister, Lucius & Brünig, Höchst-am-Main, Germany. Making phenylethylmethylpyrazolone	464,861	Dec. 8	1310		57	1395
Ebert, Hermann, Stuttgart, Germany. Filtering-cock	456,242	July 21	1492	396	56	302
Ebert, John L., Farmington, N. Y. Block and tackle	454,962	June 30	2770	706	55	1703
Ebert, William H., assignor of one-half to J. C. Beekman, New York, N. Y. Electric-current tester	453,323	June 2	223	58	55	1190
Ebnetter, Johann J., Newark, N. J. Fabric-holding frame for embroidering-machines	457,814	Aug. 18	1447	376	56	823
Ecaubert, Frederic, Brooklyn, N. Y. Tool for ornamenting watch-case centers or other articles	454,557	June 23	2073	536	55	1567
Ecaubert, Frederic, Brooklyn, N. Y. Watch-case	457,147	Aug. 4	328	84	56	596
Ecaubert, Frederic, Brooklyn, N. Y. Knife-sharpener	457,148	Aug. 4	329	85	56	596
Ecaubert, Frederic, Brooklyn, N. Y. Mechanism for making watch-cases	457,149	Aug. 4	330	85	56	596
Ecaubert, Frederic, Brooklyn, N. Y. Ornamenting watch-cases, &c.	457,150	Aug. 4	332	85	56	597
Eccles, Richard, Auburn, N. Y. Coupling for sleighs	458,103	Aug. 18	1917	498	56	913
Eckardt, Johannes C., Stuttgart, Württemberg, Germany. Mechanism for turning Christmas-trees with musical accompaniment	453,110	May 26	2700	680 681 100 101 102	55	1113
Eckerson, David I., Worcester, N. Y. Printing-press	457,186	Aug. 4	389	101 102	56	607
Eckerson, David I., Worcester, N. Y. Delivery mechanism for printing-presses	457,187	Aug. 4	392	102 103	56	607
Eckerson, David I., Worcester, N. Y. Feed mechanism for printing-presses	457,188	Aug. 4	395	103	56	608
Eckert, Andreas, Newark, N. J. Transom-lock	452,777	May 26	2155	540	55	1007
Eckler, Henry, and J. Woerner, Seymour, Ind. Road-wagon	461,073	Oct. 13	817	209	57	164
Eckley, Matthew, Pettisville, Ohio. Wire-tightener	465,169	Dec. 15	1854	470	57	1506
Ecklund, Peter A., Dracut, Mass. Table-leaf support	466,005	Dec. 29	3223	821	57	1787
Eckstein, Fred, Jr., Cincinnati, Ohio. Drive-chain	459,038	Sept. 8	774	188	56	1224
Eckstein, Friedrich, Vienna, Austria-Hungary. Composition of matter for use as a substitute for glass, &c.	458,157	Aug. 25	2001	518	56	935
Eckstrom, Andrew M., St. Louis, Mo. Wardrobe-bedstead	460,468	Sept. 29	3010	754	56	1674
Eckstein, William G., Chicago, Ill. Washing compound	454,154	June 16	1464		55	1443
Economic Gas and Coke Company. (See Jones, Frederick J., assignor.)						
Economy Dryer Company. (See Birkholz, Richard, assignor.)						
Eddy, Arthur H., Hartford, Conn. Steam-generator	455,314	July 7	26	7	56	7

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Eddy, Charles A. (See Morrell and Eddy.)						
Eddy, Earl D., San Mateo, Cal. Attachment for dental engines	462,896	Nov. 10	1082	281	57	769
Eddy, George W., Saratoga, N. Y. Fish-plate connection for rail-joints	463,419	Nov. 17	1917	501	57	939
Eddy, Jerome. (See North, Alfred C., assignor.)						
Edelman, Philip, Altamont, N. Y. Guard-rail clamp for railway-tracks	454,639	June 23	2225	573	55	1592
Edelmann, Albert, Austin, Tex. Fuel produced from lignite	465,249	Dec. 15	1972		57	1530
Edelstein, Joseph, New York, N. Y. Velocipede	449,111	Mar. 31	2980	{ 752 753 }	54	1721
Edens, G. W., et al. (See George, Albert F., assignor.)						
Eder, Eleanore, St. Louis, Mo. Fire-escape ladder	444,607	Jan. 13	982	255	54	203
Eder, Elenore, St. Louis, Mo. Baby-carriage body	461,742	Oct. 20	1947	483	57	386
Edey, Charles E. C., assignor of one-half to E. P. Sheerer, D. M. Fike, and W. P. Graham, Des Moines, Iowa. Car-coupling	450,578	Apr. 14	1394	344	55	275
Edgar, Alden, assignor to A. D. Edgar, Watkins, N. Y. Parcel-carrier	460,772	Oct. 6	378	93	57	74
Edgar, Alden, assignor to A. D. Edgar, Watkins, N. Y. Fruit-carrier	462,242	Nov. 3	33	7	57	558
Edgar, Alma D. (See Edgar, Alden, assignor.)						
Edgar, Daniel, Adrian, Mich. Spring bed-bottom	458,655	Sept. 1	171	40	56	1098
Edgar, Dennis P., Manchester, Mich. Refrigerator	465,055	Dec. 15	1654	{ 421 422 }	57	1469
Edgar, Ellis F., Woodbridge, N. J. Burning fuel in furnaces	450,616	Apr. 21	1471	361	55	297
Edgar, Ellis F., Woodbridge, N. J. Furnace	454,037	June 16	1291	{ 336 337 }	55	1410
Edgar, Joseph M., assignor to J. Z. Roraback, Kansas City, Mo. Indicator-lock	449,314	Mar. 31	3316	836	54	1781
Edgar, Joseph M., assignor to J. Z. Roraback, Kansas City, Kans. Indicator-lock	458,125	Aug. 18	1948	506	56	918
Edgar, Malcolm W., assignor to Detroit Can Company, Detroit, Mich. Can-heading machine	464,297	Dec. 1	470	{ 112 113 }	57	1223
Edgar, Silas D., Wilkes-Barré, Pa. Torpedo-placer	463,858	Nov. 24	2610	679	57	1080
Edgecomb, John S., Grotton, Conn., and G. E. Sanborn, New York, N. Y.; said Edgecomb assignor to said Sanborn. Paper-trimming machinery	465,656	Dec. 22	2648	{ 674 675 }	57	1667
Edge and Heel Blacking Machine Company. (See Nagle, Richard, assignor.)						
Edge, Frank, Grand Rapids, Mich. Saw-filing machine	454,011	June 9	1254	{ 326 327 }	55	1396
Edge, Horace L., assignor to Niagara Stamping and Tool Company, Buffalo, N. Y. Shears for cutting sheet metal	464,652	Dec. 8	992	247	57	1334
Edgerly, Frank E. and C. E. Gould, Leominster, Mass.; said Gould assignor to said Edgerly. Hair-pin machine	452,778	May 26	2156	540	55	1007
Edgerly, Jason H., assignor of two-thirds to E. H. Dickinson and T. B. Eldridge, Chicago, Ill. Shoe-turning machine	460,526	Sept. 29	3117	779	56	1696
Edgerton, Charles, Philadelphia, Pa. Steam-heating apparatus	445,396	Jan. 27	2251	584	54	465
Edgerton, Edward M., Chicago, Ill. Electric alarm-clock	448,325	Mar. 17	1740	440	54	1468
Edgerton, H. O., et al. (See Kilbourn, Washington H., assignor.)						
Edgerton, Nathan H., Philadelphia, Pa. Secondary battery	462,693	Nov. 10	754	197	57	704
Edgren, August H., Lincoln, Nebr. Adjustable book-stand	446,331	Feb. 10	1372	334	54	784
Edinburgh Foundry and Machine Company. (See Paine, Luther E., assignor.)						
Edinburg, James H., Eddytown, N. Y. Grape trimming and packing table	447,041	Feb. 24	2518	625	54	1027
Edison Electric Light Company. (See Edison, Thomas A., assignor.)						
Edison Electric Light Company. (See Marshall, John T., assignor.)						
Edison General Electric Company. (See Andrews, William S., assignor.)						
Edison General Electric Company. (See Andrews and Warren, assignors.)						
Edison General Electric Company. (See Ball, Henry P., assignor.)						
Edison General Electric Company. (See Delany, James H., assignor.)						
Edison General Electric Company. (See Henderson and Sargent, assignors.)						
Edison General Electric Company. (See Johnson, Edward H., assignor.)						
Edison Machine Works. (See Frietsch, Karl G., assignor.)						
Edison Phonograph Company. (See Edison, Thomas A., assignor.)						
Edison, Thomas A., Llewellyn Park, N. J. Leading-in wire for incandescent electric lamps	444,530	Jan. 13	866	225	54	181
Edison, Thomas A., Llewellyn Park, N. J. Telegraph	448,779	Mar. 24	2473	619	54	1615
Edison, Thomas A., Llewellyn Park, N. J. Turning-off device for phonographs	448,781	Mar. 24	2476	619	54	1615
Edison, Thomas A., Llewellyn Park, N. J. Phonograph-recorder	450,740	Apr. 21	1685	408	55	345
Edison, Thomas A., Llewellyn Park, N. J. Phonograph	453,741	June 9	885	230	55	1324
Edison, Thomas A., Llewellyn Park, N. J. Incandescent-lamp filament	454,262	June 16	1617	424	55	1473
Edison, Thomas A., Llewellyn Park, N. J. Phonograph recorder or reproducer	454,941	June 30	2742	699	55	1697
Edison, Thomas A., Llewellyn Park, N. J. Phonograph	454,942	June 30	2743	699	55	1697
Edison, Thomas A., Llewellyn Park, N. J. Phonograph-doll	456,301	July 21	1583	418	56	319
Edison, Thomas A., Llewellyn Park, N. J. Phonograph	456,302	July 21	1585	418	56	320
Edison, Thomas A., Llewellyn Park, N. J. Magnetic belting	457,343	Aug. 11	705	181	56	669
Edison, Thomas A., Llewellyn Park, N. J. Smoothing-tool for phonogram-blanks	457,344	Aug. 11	706	181	56	670
Edison, Thomas A., Llewellyn Park, N. J. Phonogram-blank carrier	460,123	Sept. 29	2496	622	56	1575
Edison, Thomas A., Llewellyn Park, N. J. Incandescent electric lamp	462,540	Nov. 3	503		57	647
Edison, Thomas A., Llewellyn Park, N. J. Extracting copper pyrites	465,250	Dec. 15	1972		57	1530
Edison, Thomas A., Llewellyn Park, N. J. Bricking fine ores	465,251	Dec. 15	1974		57	1530
Edison, Thomas A., Llewellyn Park, N. J. Armature connection for motors or generators	465,970	Dec. 29	3140	805	57	1772
Edison, Thomas A., Llewellyn Park, N. J. Phonograph	465,972	Dec. 29	3143	806	57	1773
Edison, Thomas A., Llewellyn Park, N. J. Armature for dynamos or motors	465,973	Dec. 29	3147	806	57	1774
Edison, Thomas A., Menlo Park, N. J. Locomotive for electric railways	446,667	Feb. 17	1886	468	54	898
Edison, Thomas A., Menlo Park, N. J. Process of and apparatus for generating electricity	460,122	Sept. 29	2494	621	56	1575
Edison, Thomas A., Menlo Park, N. J. Means for transmitting signals electrically	465,971	Dec. 29	3141	805	57	1772
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. System of electric lighting	446,666	Feb. 17	1884	468	54	898
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. Electric-arc light	446,668	Feb. 17	1887	469	54	898
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. Manufacture of filaments for incandescent electric lamps	446,669	Feb. 17	1889	469	54	899
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. Electric railway	448,778	Mar. 24	2472	618	54	1614
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. Incandescent electric lamp	454,558	June 23	2077	536	55	1567
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. Manufacture of incandescent electric lamps	459,835	Sept. 22	2049	515	56	1484
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. System of distributing electricity	464,822	Dec. 8	1258	315	57	1384
Edison, Thomas A., Menlo Park, N. J., assignor to Western Union Telegraph Company, New York, N. Y. Sextuplex telegraph	452,913	May 26	2468	{ 599 600 }	55	1047

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Edison, Thomas A., Menlo Park, N. J., assignor to Western Union Telegraph Company, New York, N. Y. Sextuplex telegraph	453,601	June 2	659	{ 169 170 }	55	1272
Edison, Thomas A., Llewellyn Park, N. J., assignor to Edison Phonograph Company, of New Jersey. Device for turning off phonogram-blanks	448,780	Mar. 24	2475	619	54	1615
Edland, Joe L., Brooklyn, N. Y. Type-writing machine	456,025	July 14	1164	305	56	229
Edleblute, Lucius S., assignor of one-half to F. Mueller, Sheboygan, Wis. Mechanical movement	451,113	Apr. 28	2270	562	55	466
Edleblute, Lucius S., assignor of one-half to F. Mueller, Sheboygan, Wis. Mechanical movement	451,114	Apr. 28	2271	562	55	466
Edmand, Fred B., Toronto, Canada. Cloth-measuring machine	462,940	Nov. 10	1158	300	57	783
Edmonds, Charles J., assignor to Mason & Davis Company, Chicago, Ill. Cooking-stove	461,953	Oct. 27	2304	571	57	464
Edmonds, Charles J., and A. C. Mason, assignors to Mason & Davis Company, Chicago, Ill. Water-heater for gas or vapor stoves	460,703	Oct. 6	282	68	57	55
Edmonds, Frank A., et al. (See Hatcher, Singleton D., assignor.)						
Edmonds, Robert S., Bradford, Pa. Oil-pump	446,734	Feb. 17	1999	498	54	920
Edmondson, Algernon G., San Buenaventura, Cal. Railway-rail joint	464,699	Dec. 8	1074	266	57	1348
Edson, Henry T., Rochester, N. Y. Curtain or shade guide	451,665	May 5	340	83	55	643
Edson, James H., Rutland, assignor of one-half to Vermont Marble Company, Proctor, Vt. Apparatus for tooling marble or other material	466,161	Dec. 29	3464	885	57	1835
Edson, Nathaniel T., New Orleans, La. Portable furnace	452,118	May 12	1089	277	55	787
Edson, Nathaniel T., New Orleans, La. Vertical float-paddle	453,180	June 2	5	1, 2	55	1150
Edson, Walter C. (See Wilson, James C., assignor.)						
Edson, William, Boston, Mass., assignor to Beacon Vacuum Pump and Electrical Company, of Maine. Electric-fuse box	453,111	May 26	2702	681	55	1114
Edward P. Allis Company. (See Birkholz, Hans, assignor.)						
Edward P. Allis Company. (See Gerard, John J., assignor.)						
Edward P. Allis Company. (See Gray, William D., assignor.)						
Edward P. Allis Company. (See Reynolds, Shaw, and Trout, assignors.)						
Edwards, Archer. (See Edwards, Richard J. and A.)						
Edwards, Benjamin, New York, N. Y. Lock	445,501	Jan. 27	2406	628	54	494
Edwards, Benjamin, New York, N. Y. Latch	463,031	Nov. 10	1282	332	57	809
Edwards, Benjamin J., London, England. Photographic camera	452,119	May 12	1090	{ 277 278 }	55	787
Edwards, Benjamin J., London, England. Manufacture of photographic films	460,570	Oct. 6	43	10, 11	57	10
Edwards, Charles M., assignor to J. H. Jefferson, Bloomingburg, Ohio. Convertible spike-extractor or lifting-jack	444,427	Jan. 13	701	183	54	146
Edwards, Charles R. F. (See Parsons, Ambrose E., assignor.)						
Edwards, Daniel W., assignor to Murray Overhead Trolley Switch Company, Saginaw, Mich. Turn-out or switch for trolley-wires	460,571	Oct. 6	46	11	57	11
Edwards, Edmund, London, England. Coin-freed apparatus for exhibiting optical illusions	459,065	Sept. 8	815	198	56	1231
Edwards, Edward R. (See Bartholemew, George E., assignor.)						
Edwards, Edward R., Mineral Ridge, Ohio, assignor of one-half to T. A. Mitchell, Washington, D. C. Bed-support for railway-tracks	464,173	Dec. 1	250	61	57	1183
Edwards, George, and C. D. Everett, Bear, Del. Change-receiver	446,438	Feb. 17	1547	380	54	831
Edwards, George C., and B. V. Bufington, Marysville, Ohio. Casting for rope halters	465,777	Dec. 22	2822	723	57	1702
Edwards, Granville M., Boston, Mass., assignor of one-half to W. E. Dennison, Portland, Me. Heater	466,092	Dec. 29	3356	857	57	1814
Edwards, John C., administrator. (See Bernhardt, George.)						
Edwards, John D., Decatur, Ind. Refining oils	449,213	Mar. 31	3136	791	54	1750
Edwards, John F. A., Bushire, Persia. Onion-slicer	461,821	Oct. 27	2091	515	57	422
Edwards, John S. (See Slayden and Reynolds, assignors.)						
Edwards, Joseph H., Giddings, Tex. Animal-trap	465,056	Dec. 15	1656	422	57	1469
Edwards, Lewis R., Charlemont, Mass. Scythe-fastener	451,222	Apr. 28	2457	{ 607 608 }	55	500
Edwards, Oliver M., Johnstown, N. Y. Window. (Reissue)	11,154	Mar. 24	2954	748	54	1708
Edwards, Richard J., Galena, Ill. Automatic lubricator for saws	444,696	Jan. 13	1116	288	54	229
Edwards, Richard J., Galena, Ill. Automatic saw-lubricator	461,074	Oct. 13	818	210	57	164
Edwards, Richard J. and A., London, England. Machinery or apparatus for grinding or polishing	465,170	Dec. 15	1855	{ 470 471 }	57	1506
Edwards, Robert H., Wellsborough, Pa. Reversing-gear for clutch-couplings	445,772	Feb. 3	431	{ 106 107 }	54	596
Edwards, Thomas A., Denver, Colo. Speculum	462,827	Nov. 10	967	251	57	747
Edwards, Thomas M., assignor to T. W. Williams, New London, Conn. Regulator for electric circuits	447,177	Feb. 24	2758	682	54	1073
Edwards, William C. (See Parr and Edwards.)						
Edwards, William C., Holyoke, Mass. Stuff-regulating apparatus for paper-machines	445,985	Feb. 10	777	190	54	674
Edwards, William C., assignor of one-half to E. M. Fairfield, Holyoke, and O. S. Greenleaf, Springfield, Mass. Magnetic pulp-separator	446,704	Feb. 17	1949	486	54	910
Edwards, William C., assignor of one-half to E. M. Fairfield, Holyoke, and O. F. Greenleaf, Springfield, Mass. Portable magnetic rifle	451,208	Apr. 28	2441	603	55	497
Edwards, William J., Chicago, Ill. Power-feed sawing-machine	447,812	Mar. 10	885	{ 220 221 }	54	1293
Edwards, William J., Chicago, Ill. Velocipede-saddle	448,739	Mar. 24	2412	603	54	1603
Edwards, William J., assignor to Union Manufacturing and Plating Company, Chicago, Ill. Velocipede	466,134	Dec. 29	3427	878	57	1828
Edwards, William P., Philadelphia, Pa. Veterinary mouth-opener	457,911	Aug. 18	1617	422	56	853
Efren, Jacob, Berlin, Germany. Incrustation-preventive	450,760	July 28	2355		56	474
Egan, Charles E., Columbus, assignor of three-fourths to W. H. Weitzell, Logan, and J. F. Casey, Zanesville, Ohio. Electric motor	458,545	Aug. 25	2639	642	56	1055
Egan, Charles W., Washington, D. C. Reed-organ	449,756	Apr. 7	175	43	55	36
Egan, James A., et al. (See Walter, Edward, assignor.)						
Egan, Michael, and C. G. Udell, North Indianapolis, Ind. Feed-water purifier	464,474	Dec. 1	714	174	57	1271
Ege, Alexander H. (See Richardson, John T., assignor.)						
Egelston, Oscar J. F., Covington, Ky. Box-fastener	451,616	May 5	262	63	55	629
Egg, Gustav A., assignor of one-third to J. A. Roth, Erie, Pa. Velocipede	444,341	Jan. 6	561	144	54	112
Egge, Frederick, Bridgeport, Conn. Apparatus for molding amber	445,284	Jan. 27	2093	540	54	432
Egge, Frederick, Bridgeport, Conn. Molding amber	445,285	Jan. 27	2094	541	54	432
Egge, Frederick, Bridgeport, Conn. Mold for making cigar mouth-pieces from small pieces of amber	457,966	Aug. 18	1710	447	56	872
Egge, Frederick, assignor to Smith and Egge Manufacturing Company, Bridgeport, Conn. Machine for making sheet-metal chains	451,658	May 5	327	{ 79 80 81 }	55	641
Egge, Frederick, Bridgeport, Conn., assignor to W. H. Smidt and E. L. Pnpke, New York, N. Y. Mold for covering the heads of lacing-studs	456,303	July 21	1585	419	56	320

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Edge, Frederick, Bridgeport, Conn., assignor to W. H. Smidt and E. L. Pupke, New York, N. Y. Machine for making lacing-studs	462,243	Nov. 3	34	{ 8 9 10 523	57	558
Edge, Joseph, Wrightstown, Minn. Vehicle-brake	454,519	June 23	2015	523	55	1556
Eggeman, Frederick J., et al. (See Eggeman, Godfrey S., assignor.)						
Eggeman, Frederick J., assignor of two-thirds to J. Duguid and G. S. Eggeman, Toledo, Ohio. Trunk	465,693	Dec. 22	2700	688	57	1677
Eggeman, Godfrey S., et al. (See Eggeman, Frederick J., assignor.)						
Eggeman, Godfrey S., assignor of two-thirds to J. Duguid and F. J. Eggeman, Toledo, Ohio. Trunk	465,694	Dec. 22	2701	688	57	1678
Eggenberger, Sylvester, Buda-Pesth, Austria-Hungary. Boiler-furnace	463,829	Nov. 24	2557	666	57	1069
Eggers, Frank F., San Francisco, Cal. Electrical dental engine	449,847	Apr. 7	311	81	55	62
Eggert, Edward A., et al. (See Church, Walter A., assignor.)						
Eggis, Adolphe P., Freyburg, Switzerland, assignor to Eggis Patent Typewriting Syndicate, Limited, London, England. Type-writing machine	455,561	July 7	423	{ 112 113 114	56	82
Eggis Patent Typewriting Syndicate. (See Eggis, Adolphe P., assignor.)						
Eggleston, Charles H., and J. C. Welles, Marshall, assignors of one-half to T. J. O'Brien, Grand Rapids, Mich., and E. O. Ely, Boston, Mass. Button-setting machine	463,292	Nov. 17	1699	444	57	897
Eggleston, James W., Minneapolis, Minn. Printer's gage-pin	458,562	Sept. 1	23	5	56	1070
Egler, Jacob D., assignor of one-half to J. Gamble, Pittsburg, Pa. Pencil-sharpener	466,077	Dec. 29	3330	850	57	1810
Egley, Henry, Toledo, Ohio. Overshoe	447,564	Mar. 3	482	118	54	1208
Egley, John C., Philadelphia, Pa. Circular-knitting machine	466,093	Dec. 29	3357	857	57	1815
Ehebold, Adam, New York, N. Y. Gas-meter	448,643	Mar. 24	2251	565	54	1572
Ehmer, Rudolph, Monsey, N. Y. Chicken-coop	459,105	Sept. 8	887	213	56	1245
Ehrlich, Leo, St. Louis, Mo. Copying-press	450,563	Apr. 14	1376	339	55	271
Ehrlich, Leo, St. Louis, Mo. Fare receiver and register	462,114	Oct. 27	2543	632	57	509
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter	446,332	Feb. 10	1373	334	54	784
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter	450,061	Apr. 7	607	152	55	117
Ehrlich, Leo, St. Louis, Mo., and J. A. Keyes, New York, N. Y., assignors to St. Louis Register Company. Register for fares	465,523	Dec. 22	2431	620	57	1627
Eich, William C., Harmonsburg, Pa. Mechanical movement	453,884	June 9	1080	{ 282 283	55	1361
Eichbaum, Henry, London, England. Pneumatic gun	448,511	Mar. 17	2028	508	54	1522
Eichbaum, Henry, London, England. Pneumatic gun	450,693	Apr. 21	1627	391	55	334
Eichbaum, Henry, London, England. Pneumatic gun	453,692	June 9	811	207	55	1310
Eichbaum, Henry, London, England. Reservoir for pneumatic guns	456,617	July 28	2107	557	56	427
Eichbaum, Henry, London, England. Pneumatic gun	463,623	Nov. 24	2247	{ 591 592	57	1011
Eichbaum, Walter I., Mount Vernon, N. Y., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, Boston, Mass. Store-service apparatus	465,964	Dec. 29	3128	802	57	1770
Eichelberger, John T., St. Louis, Mo. Fish-hook	463,032	Nov. 10	1283	332	57	809
Eichert, August, Hohenzollern Grube, near Benthen, Germany. Safety device for elevators	454,263	June 16	1618	424	55	1473
Eichhorn, Carl, Fockendorf, Germany. Paper-making machine	464,608	Dec. 8	918	226	57	1321
Eichler, Paul A., Philadelphia, Pa. Register for billiard-tables	456,693	July 28	2229	589	56	450
Eick, Otto, Philadelphia, Pa. Bottle-washing machine	463,360	Nov. 17	1818	{ 475 476	57	919
Eickemeyer-Field Company. (See Eickemeyer, Rudolph, assignor.)						
Eickemeyer, Rudolf, Yonkers, N. Y. Method of and apparatus for developing mechanical motion from electrical energy	448,326	Mar. 17	1742	440	54	1469
Eickemeyer, Rudolf, Yonkers, N. Y. Trolley for electric railways	448,831	Mar. 24	2545	639	54	1628
Eickemeyer, Rudolf, Yonkers, N. Y. Insulation of armatures for dynamo-electric machines	450,367	Apr. 14	1103	270	55	217
Eickemeyer, Rudolf, Yonkers, N. Y. Electric motor	451,320	Apr. 28	2618	446	55	532
Eickemeyer, Rudolf, Yonkers, N. Y. Dynamo-electric machine	454,336	June 16	1723	450	55	1494
Eickemeyer, Rudolf, Yonkers, N. Y. Electric elevator	454,462	June 23	1925	{ 502 503	55	1540
Eickemeyer, Rudolf, Yonkers, N. Y. Electric transmitting-telephone	464,152	Dec. 1	216	51, 52	57	1177
Eickemeyer, Rudolf, Jr., Yonkers, N. Y. Electric resistance-box	454,207	June 16	1539	405	55	1458
Eickemeyer, Rudolph, Yonkers, N. Y., assignor to Eickemeyer-Field Company, of New York. Electric locomotive or street-car motor	453,167	May 26	2802	{ 702 703	55	1299
Eickershoff, John H., Cincinnati, Ohio. Oil-separator for steam-engines	453,602	June 2	661	170	55	1273
Eickershoff, John H., Cincinnati, Ohio. Valve for compound engines	461,896	Oct. 27	2203	543	57	445
Eickershoff, John H., assignor to Triumph Compound Engine Company, Cincinnati, Ohio. Compound steam-engine	447,671	Mar. 3	633	157	54	1237
Eickershoff, John H., assignor to Triumph Compound Engine Company, Cincinnati, Ohio. Compound steam-engine	459,507	Sept. 15	1516	379	56	1376
Eickershoff, John H., assignor to L. Feist, Cincinnati, Ohio. Steam-engine	456,694	July 28	2230	590	56	451
Eifländer, Charles, Newark, N. J. Spring-hinge	466,031	Dec. 29	3265	832	57	1796
Eighmie, George D., New York, N. Y. Shirt	452,178	May 12	1195	302	55	807
Eighmie, George D., New York, N. Y. Sleeve for shirts	452,179	May 12	1196	302	55	807
Eighmie, George D., New York, N. Y. Shirt	452,180	May 12	1196	302	55	807
Eilar, Augustus L., New Castle, Ind. Adjustable map or chart holder	454,126	June 16	1416	370	55	1434
Eilbracht, Louis, St. Louis, Mo. Soot-removing device for stove-pipes	450,784	Apr. 21	1759	427	55	358
Eisele, David. (See Flöring and Eisele.)						
Eisele, John G., Philadelphia, Pa. Swimming-glove	458,888	Sept. 1	537	131	56	1168
Eisele, John G., Philadelphia, Pa. Swimming apparatus	465,657	Dec. 22	2650	675	57	1667
Eisenberg, Lee. (See Hicks, Albert S., assignor.)						
Eisenhart, Henry W. (See Farquhar and Eisenhart.)						
Eisenhart, Jeremiah, Bethlehem, Pa. Velocipede	462,115	Oct. 27	2546	{ 632 633	57	509
Eisenhart, John W., York, Pa. Bobbin-winding machine	445,765	Feb. 3	415	{ 103 104	54	594
Eisenhart, John W., York, Pa. Lot-off and take-up mechanism for looms	448,327	Mar. 17	1747	441	54	1469
Eisenhart, John W., York, Pa. Tension device for loom-shuttles	460,723	Oct. 6	308	76	57	61
Eisenhuth, John W. (See Tremper and Eisenhuth.)						
Eisenman, Richard, and H. Van Bree, Racine, Wis. Bag-handle	457,112	Aug. 4	276	72	56	586
Eisler, Isaac. (See Bonner and Eisler.)						
Eisler, Morris, New York, N. Y. Tool for cutting jewelers' stock	463,497	Nov. 17	2022	530	57	960
Eitel, Willis D., San José, Cal. Train fare-punch	444,576	Jan. 13	943	244	54	195
Eklund, Carl G., Eau Claire, Wis. Chair	451,034	Apr. 28	2162	534	55	443

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Ekström, Axel, Lynn, Mass., assignor to Thomson Houston Electric Company, of Connecticut. Ceiling-block	462,349	Nov. 3	214	51	57	592
Elam, William E. (See Thomas, Hardwick, and Elam.)						
Elam, William E., R. S. Thomas, and S. W. Hardwick, Dallas, Tex. Cotton conveying and cleaning apparatus	451,856	May 5	619	{ 153 154 }	{ 55 56 }	696
Elam, William E., R. S. Thomas, and S. W. Hardwick, Dallas, Tex. Apparatus for handling and cleaning seed-cotton	453,551	June 2	583	149	55	1258
Elastic Nut Company. (See Burdick, Justin H., assignor.)						
Elb, Max, and F. G. Moser, Dresden, Germany. Bottle-stoppering device	454,463	June 23	1931	504	55	1541
Elbert, John and M. B., Washington, D. C. Adjustable mirror	456,695	July 28	2233	590	56	451
Elbert, Matthias B. (See Elbert, John and M. B.)						
Elbert, William N. (See Roosevelt and Elbert.)						
Elder, Edward C. (See Donaldson and Elder.)						
Elder, George. (See Draper, Francis M., assignor.)						
Elder, James F., Philadelphia, Pa. Stock-car	456,697	July 28	2235	591	56	452
Elder, Joseph, Peoria, Ill. Means for truing locomotive-wheels	449,350	Mar. 31	3378	851	54	1792
Eldred, Zenas C., et al., receivers. (See Holt, Noah W., assignor.)						
Eldredge, Alonzo W., Big Rapids, Mich. Domestic steam-cooking apparatus	458,417	Aug. 25	2441	594	56	1017
Eldredge, Daniel W., assignor to American Waltham Watch Company, Waltham, Mass. Holder for watch-mainsprings	452,566	May 19	1818	457	55	932
Eldredge, Earl C., Springfield, Mass. Electric indicator	455,855	July 14	904	237	56	182
Eldredge, Marcellus, et al. (See Hayes, John W., assignor.)						
Eldredge, Martin F., trustee. (See Talbott, Sylvanus J., assignor.)						
Eldridge, George W., et al. (See Nickerson, Hiram B., assignor.)						
Eldridge, Hackley. (See Phelan and Eldridge.)						
Eldridge, Hillary. (See Berger and Eldridge.)						
Eldridge, Thomas B., et al. (See Edgerly Jason H., assignor.)						
Eldridge, William H. (See Hall and Eldridge.)						
Electric Alarm Company. (See Shafter, Charles H., assignor.)						
Electric Alarm Lock Company. (See Baumann, Robert, assignor.)						
Electric Bulletin Company. (See St. John and Jennings, assignors.)						
Electric Car Company of America. (See Condict, George H., assignor.)						
Electric Car Company of America. (See Hunter, Rudolph M., assignor.)						
Electric Carbon Manufacturing Company. (See Hoffman, Edward J., assignor.)						
Electric Construction and Supply Company. (See Ward, Barton B., assignor.)						
Electric Date and Time Stamp Company. (See Martindale and Malmberg, assignors.)						
Electric Engineering and Supply Company. (See Hinds, Jesse L., assignor.)						
Electric Gas Lighting Company. (See Lane, Thomas W., assignor.)						
Electric Gas Lighting Company. (See Smith, Joseph B., assignor.)						
Electric Gas Machine Company. (See Tallmadge, James W., assignor.)						
Electric Novelty Advertising Company et al. (See Gates, Waldo L., assignor.)						
Electric Secret Service Company. (See Foote and Moore, assignors.)						
Electric Secret Service Company. (See Kintner, Charles J., assignor.)						
Electric Storage Battery Company. (See Lloyd, Henry H., assignor.)						
Electric Street and Station Indicator Company. (See Snedden, William T., assignor.)						
Electric Typographic Company. (See Lee, Homer, assignor.)						
Electric Typographic Company. (See Lee and Lebrun, assignors.)						
Electric Vapor Engine Company. (See Tremper and Eisenhuth, assignors.)						
Electric Wheel Company. (See Stillwell, John A., assignor.)						
Electrical Appliance Manufacturing Company. (See White, Le Roy S., assignor.)						
Electrical Forging Company. (See Angell, Edwin E., assignor.)						
Electrical Forging Company. (See Angell and Porter, assignors.)						
Electrical Forging Company. (See Blanchard, George W., assignor.)						
Electrical Forging Company. (See Burton and Angell, assignors.)						
Electrical Safety Company. (See Cobb, Sylvanus H., assignor.)						
Electrical Supply Company. (See Chase, Murrey C., assignor.)						
Electrical Supply Company. (See Fletcher, John R., assignor.)						
Electrical Supply Company. (See Wirt, Charles, assignor.)						
Electrical Supply Company, B. G. (See Jordan, Linwood F., assignor.)						
Electrical Supply Manufacturing Company. (See Whitney, Edwin E., assignor.)						
Electro-Amalgamator Company. (See Tanner, William J., assignor.)						
Elektron Manufacturing Company. (See Perret, Frank A., assignor.)						
Eley, Philip, Bayonne, N. J. Method of and apparatus for connecting branches to pipes ..	460,773	Oct. 6	379	93	57	74
Elfering, John H., assignor of one-third to S. H. Wagner, New Haven, Conn. Annunciator ..	446,641	Feb. 17	1851	459	54	892
Elgar, Marietta T., et al. (See Sperry, John, assignor.)						
Elgen, Louis, et al. (See Elgen, Magnus P., assignor.)						
Elgen, Magnus P., assignor of seven-eighths to T. Wilson, T. Grutling, L. Elgen, H. J. Nelson, and C. Johnke, St. Paul, Minn. Rotary engine	448,213	Mar. 17	1536	393	54	1429
Elger, William D., Brooklyn N. Y. Check-punch	464,498	Dec. 8	755	184	57	1287
Elgin National Watch Company. (See Hunter and Corthell, assignors.)						
Elkins, Charles, Saccarappa, Me. Insulator	444,879	Jan. 20	1448	376	54	299
Elkins, William H., Hornellsville, assignor of two-thirds to H. E. Irvine, New York, N. Y. Electric-arc lamp	444,977	Jan. 20	1618	414	54	331
Elkins, William H., Cambridge, Mass., assignor of two-thirds to H. E. Irvine, New York, N. Y. Multiplex-arc lamp	445,136	Jan. 20	1857	481	54	378
Elkins, William H., Cambridge, Mass., assignor to American Electric Machinery Company, Portland, Me. Dynamo	460,372	Sept. 29	2878	718	56	1649
Ellenbogen, Mangold H., Paterson, N. J., assignor to L. Wechsler & Co., New York, N. Y. Shirt, &c.	457,773	Aug. 18	1381	357	56	810
Eller, James E. (See Jordan and Eller.)						
Eller, James H. (See Wock, John, assignor.)						
Eller, Julius M., Cleburne, Tex. Swinging chair	465,017	Dec. 15	1588	405	57	1458
Ellershausen, Francis, Hebburn-on-Tyne, assignor to Soda Improvements Company, Limited, London, England. Making caustic alkali	458,563	Sept. 1	23	.....	56	1070
Ellert, Louis, assignor to himself and H. A. Newell, Jr., New York, N. Y. Railway axle-box	447,148	Feb. 24	2712	672	54	1063
Ellery, Robert L. (See Gooding and Ellery.)						
Ellery, Robert L., Taunton, assignor to Morley Button Manufacturing Company, Boston, Mass. Die for use in making shank-buttons	459,359	Sept. 8	1275	314	56	1321
Elles, James, and J. Spence, Jamestown, N. Y. Loom	453,467	June 2	461	118	55	1235
Ellick, Joseph, Cincinnati, Ohio. Car-coupling	457,986	Aug. 18	1748	458	56	878
Ellingen, Wilhelm, assignor to J. Pohlzig, Cologne, Germany. Apparatus or grip for buckets of ropeways	456,696	July 28	2233	591	56	451
Ellington, Thomas H., Rice's Depot, Va. Tobacco-stick	449,469	Mar. 31	3595	905	54	1833

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Ellinwood, Augustus E., Akron, Ohio. Hemp or flax decorticating machine.....	461,260	Oct. 13	1110	{ 282 283 }	57	221
Elliot, Henry C. (See Hardie, Robert, assignor.)						
Elliot, John. (See Gilpin and Elliot.)						
Elliott, Abraham, assignor to Fee Brothers, Rochester, N. Y. Elevator-guard.....	448,605	Mar. 17	2181	{ 544 545 }	54	1550
Elliott, Alvin D. (See Glidden and Elliott.)						
Elliott, Asel N. (See Bullard, Ezekiel W., assignor.)						
Elliott, Charles F., Wavertree, near Liverpool, England. Ventilating apparatus and chimney-top.....	465,756	Dec. 22	2790	{ 713 714 715 }	57	1696
Elliott, Charles H. (See Braden and Elliott.)						
Elliott, George, Meadville, Pa. Inhaler.....	451,998	May 12	861	220	55	749
Elliott, George C., assignor to L. M. Elliott, Chicago, Ill., R. and I. B. Blackstock, Paxton, and W. M. Blackstock, Lafayette, Ind. Nut-lock.....	445,166	Jan. 27	1916	495	54	399
Elliott, George W., Sheffield, England. Disintegrator.....	457,709	Aug. 11	1268	{ 327 328 }	56	779
Elliott, George W., Sheffield, England. Machine for boring and mining rock, coal, or other minerals.....	463,498	Nov. 17	2023	530	57	960
Elliott, Gilbert R., New York, N. Y. Projectile for ordnance.....	452,567	May 19	1818	457	55	933
Elliott, Gilbert R., New York, N. Y. Rifled ordnance.....	452,601	May 19	1873	471	55	944
Elliott, Gilbert R., New York, N. Y. Pantograph.....	455,185	June 30	3178	805	55	1782
Elliott, Henry, Los Angeles, Cal. Lock.....	465,974	Dec. 23	3148	806	57	1774
Elliott, Henry M., Danvers, Mass. Brake for street-cars.....	444,168	Jan. 6	315	76	54	64
Elliott, Henry N., and E. L. Bemis, Los Angeles, Cal. Suspenders.....	452,667	May 19	1975	495	55	964
Elliott, Hiram N., assignor of one-half to M. L. Yann and J. Garnett, Syracuse, N. Y. Cloth-cutting machine.....	457,899	Aug. 18	1594	415	56	849
Elliott, James, Ludlow, England. Apparatus for the manufacture of coal-gas.....	456,140	July 21	1325	{ 349 350 351 }	56	271
Elliott, James H., Memphis, Tenn. Outlet for drain-pipes.....	458,950	Sept. 1	623	154	56	1186
Elliott, John W., Medora, assignor of one-half to Travis, Carter & Co., Seymour, Ind. Car-coupling.....	462,401	Nov. 3	301	74	57	608
Elliott, Jndson A., Cincinnati, Ohio. Nursery and lawn car.....	463,891	Nov. 24	2667	695	57	1089
Elliott, Luella M., et al. (See Elliott, George C., assignor.)						
Elliott, Mahlon E., Cumberland, Md., assignor of two-thirds to T. A. Hicks and W. C. Dickey, Philadelphia, Pa. Machine for making car-links.....	459,746	Sept. 22	1910	482	56	1457
Elliott, Mahlon E., Cumberland, Md., assignor of two-thirds to T. A. Hicks and W. C. Dickey, Philadelphia, Pa. Die for making claw-bars.....	465,637	Dec. 22	2603	661	57	1658
Elliott, Oscar A., York, Nebr. Fastening attachment.....	463,351	Nov. 17	1806	472	57	916
Elliott, Richard P., Nashua, N. H., C. H. French, Malden, Mass., and D. Heald, Milford, N. H. Adjustable mirror-support.....	458,227	Aug. 25	2121	{ 549 550 }	56	957
Elliott, Robert, Paullina, Iowa. Float-gold-collecting device.....	461,743	Oct. 20	1948	484	57	386
Elliott, Robert H., Birmingham, Ala. Hedge-trimmer.....	454,737	June 16	1729	455	55	1494
Elliott, Schuyler C. (See Lowdon and Dixon, assignors.)						
Elliott, Sterling, Newton, Mass. Wheel.....	444,485	Jan. 13	792	206	54	166
Elliott, Sterling, Newton, Mass. Tricycle.....	446,671	Feb. 17	1893	470	54	900
Elliott, Sterling, Newton, Mass. Velocipede.....	446,672	Feb. 17	1897	471	54	900
Elliott, Sterling, Newton, Mass. Drive-chain.....	447,813	Mar. 10	887	222	54	1293
Elliott, Sterling, Newton, Mass. Making oiling-links for drive-chains.....	447,814	Mar. 10	888	222	54	1293
Elliott, Sterling, Newton, Mass. Tire for wheels.....	464,014	Dec. 1	18	5	57	1140
Elliott, Sterling, Watertown, Mass. Book-stitching machine.....	456,946	Aug. 4	38	{ 8 9 10 }	56	540
Elliott, Sterling, Newton, Mass., assignor, by mesne assignments, to Sterling Cycle Company, Kittery, Me. Tricycle.....	446,670	Feb. 17	1890	{ 469 470 }	54	899
Elliott, Thadious V., Nichols, S. C. Saw-cleaner.....	458,523	Aug. 25	2613	636	56	1049
Elliott, W. R., et al. (See Buck and Konigslow, assignors.)						
Elliott, Walter P., New York, N. Y. Process of and apparatus for the manufacture of gas.....	452,697	May 19	2023	{ 506 507 }	55	974
Elliott, William J., assignor to D. Heald, Milford, N. H., and C. H. French, Malden, Mass. Spring friction-joint.....	458,228	Aug. 25	2123	550	56	958
Elliott, William P., Chicago, Ill. Gate for railway-tracks.....	447,463	Mar. 3	318	80	54	1178
Ellis, Alvirus L., Kansas City, Mo. Automatic potential regulator for electric currents.....	446,284	Feb. 10	1293	{ 316 317 }	54	768
Ellis, Augustin, Bedford, Ind. Plow.....	464,095	Dec. 1	136	34	57	1163
Ellis, Charles A., assignor of one-half to O. F. Dagle, East Gloucester, Mass. Toy gun.....	446,333	Feb. 10	1373	335	54	784
Ellis, Charles S., Chicago, Ill. Hame-fastener.....	454,400	June 16	1824	478	55	1511
Ellis, David T., Bridgeport, Conn., assignor to C. S. Knowles, Boston, Mass. Hose-strap.....	461,407	Oct. 13	1357	342	57	271
Ellis, Edgar E., and A. L. Lehnker, Rochester, N. Y. Means for holding and carrying photographic films.....	462,116	Oct. 27	2547	633	57	510
Ellis, Edward J., Crompton, R. I. Picker-staff check for looms.....	452,265	May 12	1324	331	55	833
Ellis, Erastus R., Detroit, Mich. Surgical splint.....	458,804	Sept. 1	382	92	56	1139
Ellis, Frank A., Chicago, Ill. Oil-filter.....	453,629	June 9	716	185	55	1291
Ellis, Franklin, San Francisco, Cal. Gas-governor.....	452,946	May 26	2435	614	55	1062
Ellis, Fred, Amesbury, Mass. Carriage-body.....	464,720	Dec. 8	1112	{ 275 276 264 265 }	57	1355
Ellis, George H., assignor of one-half to H. Kellor, Sauk Centre, Minn. Machine for making twine from straw, grass, &c.....	459,237	Sept. 8	1082	{ 264 265 }	56	1282
Ellis, Harry S. (See Ramsden and Ellis.)						
Ellis, Jacob B., assignor of one-half to W. B. Tunnell, Seymour, Mo. Sawing-machine.....	454,819	June 23	2506	{ 644 645 }	55	1646
Ellis, John F., assignor to Coe Brass Manufacturing Company, Torrington, Conn. Wire-drawing machine.....	452,837	May 26	2245	{ 563 564 }	55	1025
Ellis, John T., Toronto, Canada. Steam-boiler furnace.....	446,705	Feb. 17	1951	486	54	911
Ellis, Jonathan T., Newark, N. J., assignor to E. McLean, New York, N. Y. Hand or foot warmer.....	444,395	Jan. 6	646	168	54	127
Ellis, Lewis S., Eminence, Ky. Crupper.....	458,674	Sept. 1	200	47	56	1104
Ellis, Sidney R., New York, N. Y. Device for exhibition purposes.....	443,991	Jan. 6	5	2	54	4
Ellis, Waring H., Detroit, Mich. Savings-bank.....	458,047	Aug. 18	1836	479	56	896
Ellis, William H. G., Louisville, Ky. Combined umbrella and cane.....	465,320	Dec. 15	2088	533	57	1551
Ellis, William J., assignor to B. F. Goodrich Company, Akron, Ohio. Syringe shut-off.....	455,392	July 7	152	39	56	32
Ellison, Richard, assignor to Walton Architectural Iron Company, Cincinnati, Ohio. Electric-wire support.....	464,298	Dec. 1	472	113	57	1224

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Ellison, Thomas, Abingdon, Ill. Fire-escape	462,244	Nov. 3	39	10	57	559
Ellithorpe, Albert C., Chicago, Ill. Piston-packing	451,209	Apr. 28	2444	604	55	497
Ellithorpe, Albert C., Chicago, Ill. Lubricator	452,101	May 12	1062	268	55	782
Ells, Josiah W., assignor of three-fourths to H. B. Smithson, L. Kramer, Pittsburg, and W. S. Bostwick, Allegheny, Pa. Electric-arc lamp	453,693	June 9	814	208	55	1310
Ellsworth, Henry, Standish, Mich. Scurgle	460,746	Oct. 6	344	84	57	68
Ellsworth, Hermon G., Lockport, N. Y. Churn	466,072	Dec. 29	3324	849	57	1808
Ellsworth, Lester S., Holdredge, Nebr. Lock	447,871	Mar. 10	984	246	54	1311
Elmer, Martain B., assignor of one-half to J. P. Beck, Saginaw, Mich. Box-loop	460,527	Sept. 29	3118	780	56	1696
Elmer, Theodore G., <i>et al.</i> (See Neuburger, Markus, assignor.)						
Elmond, William H., assignor of one-half to M. A. Pennington, Kansas City, Mo. Rail-brake	448,419	Mar. 17	1892	475	54	1497
Elmore, Alexander S., Leeds, England. Apparatus for loosening tubes from mandrels	455,186	June 30	3180	805 806	55	1782
Elmore, Alexander S., Leeds, England. Process of and apparatus for manufacturing copper tubes	464,351	Dec. 1	545	133	57	1237
Elsey, Aaron F., Bardwell, Ky. Fence	447,672	Mar. 3	636	158	54	1238
Elshout, Jean G. van den. (See Fritz, Abraham A., assignor.)						
Elskamp, Henry J., Leadville, Colo. Stitching-horse	458,104	Aug. 18	1918	498	56	913
Elson, William J., Cortland, N. Y. Cabinet for type-writers, &c.	458,446	Aug. 25	2485	604	56	1024
Elson, James H., Unionville, Mo. Label-holder	461,702	Oct. 20	1892	468	57	376
Elson, William K., Martin's Ferry, Ohio. Manufacturing articles of glassware	452,452	May 19	1637	409	55	900
Eiten, Adolph H. G., assignor of one-half to E. A. Hartwell, Chicago, Ill. Combined hook and molding for hanging clothes or pictures	451,270	Apr. 28	2551	629	55	519
Eltringham, William P., Du Bois, Pa. Electric-light carbon	457,763	Aug. 11	1369		56	801
Elwood, Jefferson U., McKeesport, Pa. Drum-shifter for hoisting-machines	460,853	Oct. 6	487	124	57	97
Elwood, Byron H., Fort Plain, N. Y. Hydrocarbon-burner	449,315	Mar. 31	3319	837	54	1781
Ely, Charles H., Atlantic Highlands, J. W. Danser, Freehold, and F. B. Rue, Atlantic Highlands, N. J. Umbrella or parasol	456,405	July 21	1750	463	56	351
Ely, Charles R., Champlain, assignor to T. W. Sheridan, Brooklyn, N. Y., and C. B. Sheridan, Orange, N. J. Paper-cutting machine	449,525	Mar. 31	3669	922	54	1848
Ely, Edward O., <i>et al.</i> (See Eggleston and Welles, assignors.)						
Ely, Edwin S., assignor of one-half to J. H. S. Quick, Chicago, Ill. Electrical station-indicator	445,773	Feb. 3	432	107	54	596
Ely, Frederick H. (See Ely, Funk, and Ely.)						
Ely, Marion F., J. B. Funk, and F. H. Ely, assignors of one-fourth to W. R. H. Ely, Clifton, W. Va. Car-coupling	461,703	Oct. 20	1893	468	57	376
Ely, William R. H. (See Ely, Funk, and Ely, assignors.)						
Emans, Theodore F., assignor of one-half to E. S. Parrott, Mendon, Ohio. Flood-gate	460,854	Oct. 6	488	125	57	97
Emanuel, Philip A., Aiken, S. C. Reducing kaolins and clays to their component oxides	455,611	July 7	507		56	98
Emanuel, Philip A., Aiken, S. C. Reduction of aluminium sulphate to sulphide	462,245	Nov. 3	40	10	57	559
Emanuel, Philip A., Aiken, S. C. Process of and apparatus for preparing aluminium sulphide	463,143	Nov. 17	1471	382	57	854
Emanuel Rau Manufacturing Company. (See Balch, Samuel W., assignor.)						
Emens, Sylvester. (See Crabbs and Emens.)						
Emerson, Charles H. (See Thurstensen, Soren, assignor.)						
Emerson, Charles H., assignor to C. H. Emerson & Co., Burlington, Vt. Book-case	455,280	June 30	3339	843 844	55	1813
Emerson, Charles H., Mason City, assignor to C. H. Ackert, Marshalltown, Iowa, and R. W. Green, St. Louis, Mo. Car-brake shoe	448,011	Mar. 10	1228	312	54	1357
Emerson, Charles H., and G. A. Emery, Mason City, Iowa. Pawl-and-ratchet mechanism for brake-staffs	456,026	July 14	1166	305	56	229
Emerson, Charles W., deceased, Somerville; G. W. Emerson, administrator, and assignor of one-half to W. S. Wait, Newton, Mass. Heating apparatus	455,542	July 7	395	103	56	77
Emerson & Co., Charles H. (See Emerson, Charles H., assignor.)						
Emerson, Edward D., Waltham, Mass. Machine for treating motes, waste, and scrapings	458,229	Aug. 25	2123	550	56	958
Emerson, George, assignor of one-half to J. W. Torrence, Long Bottom, Ohio. Means for killing poultry	462,117	Oct. 27	2551	633	57	510
Emerson, George W., administrator. (See Emerson, Charles W.)						
Emerson, Loender C., assignor of one-half to C. H. Nelson, North Grafton, Mass. Sewing-machine	444,565	Jan. 13	927	241	54	192
Emerson, James, Williamsett, Mass. Dynamometer	452,602	May 19	1875	471	55	944
Emerson, James E., assignor of one-half to T. Midgley, Beaver Falls, Pa. Wire mat	462,217	Oct. 27	2707	682	57	540
Emerson, James E., and T. Midgley, Beaver Falls, Pa. Wire mat	462,941	Nov. 10	1159	300	57	783
Emerson, James F. (See Tirrell, Jacob P., assignor.)						
Emerson, Richard. (See Baker and Emerson.)						
Emerson, Richard, assignor of one-half to W. H. Pugh, Racine, Wis. Bridle-bit	441,629	Jan. 13	1010	263	54	208
Emerson, Rufus H., <i>et al.</i> receivers. (See Holt, Noah W., assignor.)						
Emerson, Talcott & Company. (See Jones, James H., assignor.)						
Emery, Abram D., Taunton, Mass. Loom-shuttle	444,095	Jan. 6	179	45	54	38
Emery, Charles E., New York, N. Y. Method of and apparatus for rating time-pieces	451,181	Apr. 28	2378	591 592 593	55	487
Emery, Charles E., New York, N. Y. Adjusting hair-springs to watch-balances	453,927	June 9	1136	297 298	55	1373
Emery, Charles E., New York, N. Y. Adjustment for watches	453,967	June 9	1190	310 311	55	1383
Emery, Charles G. (See Shortt, Edward G., assignor.)						
Emery, Charles H. (See Clapp and Emery.)						
Emery, Charles W., assignor to Putnam Nail Company, Boston, Mass. Machine for forging nails	449,526	Mar. 31	3671	923	54	1849
Emery, George A. (See Emerson and Emery.)						
Emery, Harriet A., Washington, D. C. Invisible comb for hair-dressing	459,000	Sept. 8	705	173	56	1211
Emery, Harriet A., Washington, D. C. Wig-frame	464,559	Dec. 8	848	209	57	1305
Emery, Thomas W., Minneapolis, Minn. Coal and grain chute	444,745	Jan. 13	1202	312	54	243
Emley, Fletcher, Rome, Ga. Tension device for slat-and-wire fences	445,547	Feb. 3	30	8	54	517
Emme, Charles A., Washington, D. C. Automatic door-bell ringer or alarm	458,308	Aug. 25	2262	552 553	56	982
Emmer, Nicholas. (See Glassbrook and Emmer.)						
Emmerich, Rudolph F., and F. Vonderlehr, New York, N. Y. Bronzing-machine	464,754	Dec. 8	1159	288 289	57	1364
Emmert, Joseph F., Waynesborough, Pa. Bench-vise	457,710	Aug. 11	1269	328	56	779
Emmett, William L., East Rockaway, N. Y. Brush-holder for dynamos	451,177	Apr. 28	2372	590	55	486
Emmett, Frank. (See Watters, John S., assignor.)						
Emmer, Julius, Jr., assignor, by mesne assignments, to P. T. Dodge, trustee, Washington, D. C. Secondary battery	451,921	May 12	741	187	55	726

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Emmner, Julius, Jr., assignor to P. T. Dodge, trustee, Washington, D. C. Galvanic battery.	454,724	June 23	2349	603	55	1618
Emmner, Julius, Jr., assignor to P. T. Dodge, trustee, Washington, D. C. Electric railway.	465,844	Dec. 29	2931	750	57	1732
Emmous, Eugene D., Grand Rapids, Mich. Lemon-squeezer.	444,063	Jan. 6	134	33	54	29
Emons, Charles, Hornellsville, assignor of one-half to W. W. Boyer, Farmer Village, N. Y. Wagon-jack.	463,599	Nov. 17	2200	580	57	993
Empire Manufacturing Company. (See Packer, George W., assignor.)						
Empire Manufacturing Company. (See Swift, R. K., assignor.)						
Empire Steam Gauge Company. (See McNeil, Murdock, assignor.)						
Emrich, B. F., et al. (See Kyle, Augustus G. and E. J., assignors.)						
Emrick, John F., et al. (See Turner, James J., assignor.)						
Emsley, Joseph B., Philadelphia, Pa. Making lumpy yarn.	451,115	Apr. 28	2272	.....	55	466
Enderes, Ernst, Littleport, Iowa. Vehicle-brake.	448,913	Mar. 24	2677	673	54	1654
Endlich, Frederic M., Onray, Colo. Ore-concentrator.	461,425	Oct. 20	1383	350	57	282
Engard, Abraham. (See Hazelton, Ivory, assignor.)						
Engel, Albert W., Chicago, Ill. Ring-gage.	458,564	Sept. 1	24	5	56	1070
Engel, August. (See Sonnemann, August, assignor.)						
Engelhardt, Richard H., assignor to himself and O. Bräuer & Co., Berlin, Germany. Churn	466,299	Dec. 29	3681	940	57	1876
Engelke, Julius, Cincinnati, Ohio. Antiseptic composition for treating leather.	448,420	Mar. 17	1894	.....	54	1497
Engert, George N., Springfield, Ohio. Electric cigar-lighter.	463,754	Nov. 24	2452	641	57	1040
Engle, Stephen D., Hazleton, Pa. Scratch or matting brush.	458,524	Aug. 25	2613	636	56	1049
England, L. W. (See England, Paren, assignor.)						
England, Paren, assignor to L. W. England, Aspen, Colo. Key.	447,637	Mar. 3	593	146	54	1229
English, John C. (See Orford and English.)						
English, John C., New York, N. Y., assignor of one-half to R. L. Burnett, Plainfield, N. J. Workman's time-recorder.	450,617	Apr. 21	1473	362	55	297
English, John C., New York, N. Y., assignor of one-half to R. L. Burnett, Plainfield, N. J. Workman's time-recorder.	451,721	May 5	424	103	55	659
English, John C., New York, N. Y., assignor of one-half to R. L. Burnett, Plainfield, N. J. Workman's time-recorder.	461,822	Oct. 27	2093	516	57	422
Engwall, Otto. (See Swanson, Ludwig, assignor.)						
Enke, John G., Los Angeles, Cal. Apparatus for raising sunken vessels.	458,565	Sept. 1	26	5	56	1070
Ennes, John D., Norfolk, Va. Folding parlor-bedstead.	444,064	Jan. 6	135	33	54	29
Ennes, John D., Norfolk, Va. Dental polishing-tool.	451,371	Apr. 28	2687	666	55	545
Ennes, John D., Norfolk, Va. Folding bed.	465,616	Dec. 22	2565	657	57	1655
Ennis, George A., and C. J. Westfall, Livingston, Mont. Weather-strip.	457,851	Aug. 18	1514	394	56	835
Ennis, Henry J., assignor to A. B. Williams, Washington, D. C. Corkscrew.	454,725	June 23	2350	603	55	1618
Ennis, Herbert L., Duluth, Minn. Egg-carrying tube.	464,675	Dec. 8	1028	257	57	1341
Ennis, Thomas L., El Paso, Tex. Apparatus for oiling railway-tracks.	457,045	Aug. 4	167	41, 42	56	565
Eno, Joseph A., Newark, N. J. Steam-generator.	461,498	Oct. 20	1557	382	57	314
Eno, Joseph A., Newark, N. J. Rail-joint.	462,967	Nov. 10	1192	309	57	790
Eno, Joseph A., Newark, N. J., assignor of one-half to F. E. Fitch, Elmira, N. Y. Steam-generator for locomotive-boilers.	466,274	Dec. 29	3637	930	57	1868
Enos, Fred, Bridgeport, Conn. Car-coupling.	466,119	Dec. 29	3390	867	57	1821
Enos, William H., Chebanse, Ill. Elevator and dump.	465,171	Dec. 15	1858	471	57	1507
Enricht, Louis, New York, N. Y. Artificial stone or cement.	449,619	Mar. 31	3839	.....	54	1879
Enricht, Louis, assignor to Enricht Manufacturing Company, New York, N. Y. Artificial stone or cement.	448,512	Mar. 17	2030	.....	54	1523
Enricht, Louis, assignor to Enricht Manufacturing Company, New York, N. Y. Artificial stone or cement.	448,513	Mar. 17	2031	.....	54	1623
Enricht, Louis, assignor to Enricht Manufacturing Company, New York, N. Y. Artificial stone or cement.	448,514	Mar. 17	2031	.....	54	1523
Enricht, Louis, assignor to Enricht Manufacturing Company, New York, N. Y. Artificial-stone composition.	449,151	Mar. 31	3039	.....	54	1732
Enricht, Louis, assignor to Enricht Manufacturing Company, New York, N. Y. Artificial stone.	449,152	Mar. 31	3039	.....	54	1732
Enricht, Louis, assignor to Enricht Manufacturing Company, New York, N. Y. Manufacture of artificial stone.	449,214	Mar. 31	3137	.....	54	1750
Enricht, Louis, assignor to Enricht Manufacturing Company, New York, N. Y. Manufacture of decorative relief material.	449,874	Apr. 7	345	.....	55	69
Enricht, Louis, assignor to Enricht Manufacturing Company, New York, N. Y. Preparing a continuous and solid tiling.	450,286	Apr. 14	959	238	55	191
Enricht, Louis, assignor to Stereo-Relief Decorative Company, New York, N. Y. Manufacture of decorative relief material.	449,873	Apr. 7	344	.....	55	68
Enricht, Louis, assignor to Stereo-Relief Decorative Company, New York, N. Y. Making plaster casts.	450,287	Apr. 14	961	.....	55	191
Enricht, Louis, assignor to Stereo-Relief Decorative Company, New York, N. Y. Making plaster casts.	450,288	Apr. 14	961	.....	55	191
Enricht Manufacturing Company. (See Enricht, Louis, assignor.)						
Ensigh, Ely, et al. (See Titus, Ivor R., assignor.)						
Ensigh, George H. (See Brewer, James H., assignor.)						
Ensling, Philipp, Norwich, Conn. Weft-fork for looms.	446,094	Feb. 10	952	234	54	704
Entekin, John C., T. Boggs, and J. P. Gartner, Chillicothe, Ohio. Corn-harvester.	460,855	Oct. 6	489	125	57	97
Entekin, William G., Philadelphia, Pa. Photographic background.	445,805	Feb. 3	500	120	54	609
Entwisle, Edward B., Johnstown, Pa., assignor to Johnson Company, of Kentucky. Rail-way-crossing.	447,130	Feb. 24	2649	657	54	1053
Entwisle, James C. (See Strout, Harvey C., assignor.)						
Entz, Justus B. (See Waddell and Entz.)						
Entz, Justus B., New York, N. Y. Dynamo-electric machinery.	444,486	Jan. 13	792	206	54	166
Entz, Justus B., New York, N. Y. Dynamo-electric machine or motor.	455,790	July 14	808	211	56	164
Entz, Justus B., assignor to Waddell-Entz Electric Company, New York, N. Y. Electric railway.	448,328	Mar. 17	1749	441 442 443	54	1470
Entz, Justus B., New York, and W. A. Phillips, Brooklyn, assignors to Waddell-Entz Electric Company, New York, N. Y. Secondary-battery electrode.	461,823	Oct. 27	2094	516	57	423
Epperson, James W., Great Bend, Kans. Listed-corn cultivator.	449,527	Mar. 31	3672	923	54	1849
Eppler, Albert, Providence, R. I. Watch-protector.	450,842	Apr. 21	1859	453	55	376
Eppler, Albert, Providence, R. I. Combined breastpin and button-hook.	465,468	Dec. 22	2330	598	57	1607
Eppler, Andrew, Jr., Newtonville, assignor to Eppler Welt Machine Company, Boston, Mass. Boot or shoe sewing machine.	447,872	Mar. 10	985	246 247 248 249 250	54	1311
Eppler, John, et al. (See Hottman, Charles W., assignor.)						
Eppler Welt Machine Company. (See Eppler, Andrew, Jr., assignor.)						
Epps, Harry G., Paris, Ill. Grain-car door.	464,709	Dec. 8	1094	271	57	1353

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Epps, Levi, and E. Kibbee, Beattie, Kans. Band-cutter and feeder for thrashing-machines.	452,266	May 12	1326	331	55	833
Epstein, George B., San Antonio, Tex. Detachable handle and spring-latch.	458,105	Aug. 18	1919	499	56	913
Equitable Engineering and Construction Company. (See Stadelman, William A., assignor.)						
Equitable Manufacturing and Electric Company. (See Van Hoevenbergh, Henry, assignor.)						
Erb, Louis M., San Francisco, Cal., assignor to Reversible Chair Company, of California.						
Coin-operated reversible-seat chair	448,012	Mar. 10	1228	312	54	1357
Erb, Samuel, Mesaba, Minn. Rotary cylinder and cutting-knife for planing-machines	456,761	July 28	2356	620	56	474
Erben, John, Cleveland, Ohio. Warming closet or oven	459,199	Sept. 8	1028	251	56	1272
Erek, Franklin P., and E. J. Anderson, Louisville, Ky. Lemon-squeezer	462,429	Nov. 3	342	83, 84	57	615
Erdle, George, St. Louis, Mo. Vehicle-hound	454,930	June 30	2723	694	55	1694
Erdman, Albert K. (See Albin and Erdman.)						
Erdman, Daniel H., Camden, N. J. Portable range	445,109	Jan. 20	1818	470	54	370
Erdman, Daniel H., Camden, N. J. Furnace	449,931	Apr. 7	429	107	55	84
Erfort, A. C., et al. (See Freese, Claus, assignor.)						
Erhard, Albert C. (See Clopton, John B., assignor.)						
Erhardt, Friedrich. (See Deneker and Erhardt.)						
Erickson, Martin. (See Totman and Erickson.)						
Erickson, Peter A., North McGregor, Iowa. Cutter-bar	463,227	Nov. 17	1600	417	57	878
Ericson, Edward P., Clermont, Iowa. Fruit or vegetable steamer	463,499	Nov. 17	2024	531	57	960
Ericson, John, Sabine Pass, Tex. Pan lifter and turner	446,114	Feb. 10	984	242	54	711
Ericson, John V., Escanaba, Mich., assignor to Pettibone, Mulliken & Company, Chicago, Ill. Hoisting mechanism	452,914	May 26	2371	600	55	1048
Ericson, John V., Escanaba, assignor of one-half to D. M. Philbin, Marquette, Mich. Ore-car	454,577	June 23	2104	543	55	1572
Ericson, John V., Escanaba, assignor of one-half to D. M. Philbin, Marquette, Mich. Railway-switch lock	462,828	Nov. 10	969	251	57	748
Erickson, Lars G., New York, N. Y. Tailor's measuring implement	465,252	Dec. 15	1974	{ 504 } { 505 }	57	1530
Erikson, Andrew, Hawley, Minn. Electric belt	465,093	Dec. 15	1723	438	57	1482
Erikson, Carl A., New Britain, Conn. Electric game-register for pool-tables	466,058	Dec. 29	3308	845	57	1805
Eriksson, William. (See Kramer and Eriksson.)						
Erin, John J., Winona, Minn., assignor of one-half to J. W. Skinner, La Crosse, Wis. Game or puzzle	454,147	June 16	1451	380	55	1440
Erlandson, Carl A., San Francisco, Cal. Saw setting and filing machine	454,679	June 23	2282	585	55	1604
Erlanger, Abraham L., et al. (See Jefferson, Charles B., assignor.)						
Erlenwein, Julius, Edenkoben, Germany. File-cutting machine	447,149	Feb. 24	2713	{ 672 } { 673 }	54	1063
Erler, Margaret U., Worcester, Mass. Holder and protector for ends of dress-steels	460,290	Sept. 29	2749	685	56	1625
Erlwein, Georg, assignor to Siemens & Halske, Berlin, Germany. Filament for incandescent electric lamps	448,915	Mar. 24	2678	674	54	1654
Erlwein, Georg, assignor to Siemens & Halske, Berlin, Germany. Filament for incandescent electric lamps	448,916	Mar. 24	2679	674	54	1654
Erlwein, Georg, assignor to Siemens & Halske, Berlin, Germany. Filament for incandescent electric lamps	455,187	June 30	3181	806	55	1783
Erlwein, Georg, and F. G. A. Heller, assignors to Siemens & Halske, Berlin, Germany. Filament for incandescent electric lamps	448,914	Mar. 24	2678	673	54	1654
Ernst, Charles F., New Hamburg, Ontario, Canada. Combined fire-escape and hoist	461,499	Oct. 20	1559	{ 382 } { 383 }	57	314
Ernst, Gustav A., Camden, N. J. Musical instrument	456,027	July 14	1167	306	56	230
Ernst, James C. (See Wilson, William, assignor.)						
Ernst, Neander S. (See Donald, Frank, assignor.)						
Erny, Jacob, Philadelphia, Pa., assignor to International Freezing and Refrigerating Machine Company, of New Jersey. Refrigerating apparatus	462,118	Oct. 27	2553	634	57	511
Erny, Jacob, Z. T. Subers, and W. Hoos, assignors to International Freezing and Refrigerating Machine Company of New Jersey, Philadelphia, Pa. Freezing apparatus	446,252	Feb. 10	1243	304	54	758
Errington, William, assignor to E. Lewis, Melbourne, Victoria. Hydrant	462,478	Nov. 3	407	100	57	628
Ersine & Company, John. (See Ersine, William B., assignor.)						
Ersine, William B., assignor to J. Ersine & Company, New York, N. Y. Neck tie or scarf and making the same	444,880	Jan. 20	1449	377	54	300
Ersine, William B., assignor to J. Ersine & Co., New York, N. Y. Neckscarf	445,137	Jan. 20	1858	482	54	379
Ertel, Henry O. and S., Williamsport, Pa. Register for paper-machines	461,330	Oct. 13	1214	309	57	243
Ertel, Samuel. (See Ertel, Henry O. and S.)						
Ervin, Hugh, Chicago, Ill. Washing compound	448,421	Mar. 17	1805		54	1497
Ervin, Joseph F., Fort Wayne, Ind. Laundry conveyer	465,253	Dec. 15	1976	505	57	1530
Erwin, James A., et al. (See Carpenter, James H., assignor.)						
Erwin, John B., Malone, N. Y. Gate and gate-hinge	453,552	June 2	586	149	55	1258
Erxleben, Eduard, Chicago, Ill. Steam-separator	458,622	Sept. 1	116	26	56	1089
Esche, Ottomar, assignor to Superlative Purifier Manufacturing Company, Milwaukee, Wis. Bolting machine	450,310	Apr. 14	999	{ 247 } { 248 }	55	198
Eschner, Louis, Philadelphia, Pa. Neckscarf	446,253	Feb. 10	1246	304	54	759
Eschner, Louis, Philadelphia, Pa. Neckscarf	453,468	June 2	463	119	55	1236
Esilman, Alexander. (See Spence and Esilman.)						
Esmond, Ernest R., New York, N. Y. Car-truck	465,658	Dec. 22	2651	{ 675 } { 676 }	57	1667
Esmond, Ernest R., New York, N. Y. Cable-grip-car truck	465,659	Dec. 22	2652	676	57	1668
Esmond, Ernest R., New York, N. Y. Car-truck	465,660	Dec. 22	2654	{ 676 } { 677 }	57	1668
Esser, Hermann, et al. (See Paoli, John, assignor.)						
Essick, Samuel V., Brooklyn, N. Y. Electric telegraphic apparatus	454,338	June 16	1730	451	55	1494
Essick, William S., Royer's Ford, Pa. Heater	458,385	Aug. 25	2391	583	56	1007
Essig, Rudolf, Stuttgart, Germany. Harmonium	462,307	Nov. 3	147	37	57	578
Essington Buttonhole Finishing Machine Company. (See Feister, Henry P., assignor.)						
Estaver, William A., Worcester, Mass. Ruffler for sewing-machines	449,112	Mar. 31	2981	753	54	1722
Estaver, William A., Worcester, Mass. Tuck-creaser for sewing-machines	458,360	Aug. 25	2345	572	56	999
Estberg, William T., Philadelphia, Pa. Extension-hanger for window-shades	458,447	Aug. 25	2486	605	56	1025
Estes, George L., Rochester, N. Y. Switch-lantern	461,824	Oct. 27	2095	516	57	423
Estes, Hubert R., St. Louis, Mo. Automatic water-elevator	450,062	Apr. 7	607	153	55	118
Estes, Hubert R., assignor of one-third to E. E. Roberts, St. Louis, Mo. Sash-lock	453,553	June 2	587	150	55	1259
Estes, Robert F., et al. (See Hughes, John E., assignor.)						
Estey Organ Company. (See Fuller, Levi K., assignor.)						
Estrada, Esteban D., Pittsburg, Pa. Machine for testing the strength of metals, &c	463,259	Nov. 17	1654	{ 430 } { 431 }	57	889

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Eaty, William, assignor to C. A., J. T., and F. E. Busiel, Laconia, N. H. Stocking.....	451,468	May 5	37	9	55	586
Etheridge, Bell W., (See White, Cullen D., assignor.)						
Etheridge, Harry, Pittsburg, Pa., assignor to Writing Telegraph Company, New York, N. Y. Autographic telegraph.....	445,715	Feb. 3	327	86	54	577
Etheridge, Harry, Pittsburg, Pa., assignor to Writing Telegraph Company, New York, N. Y. Automatic switch for autographic telegraphs.....	445,716	Feb. 3	329	87	54	577
Ethridge, Frank N., assignor to American Postal Machine Company, Boston, Mass. Machine for marking mail-matter.....	449,363	Mar. 31	3411	{ 857 858 }	{ 54 54 }	{ 1797 1797 }
Etters, William C., assignor of one-half to J. A. Ware, Grover, N. C. Fertilizer-distributor.....	444,193	Jan. 6	352	86	54	71
Ettinger, Joel, Milton, Pa. Machine for making washers.....	457,951	Aug. 18	1687	443	56	867
Ettinger, Joel, Milton, Pa. Driving mechanism for molding machines.....	457,952	Aug. 18	1688	443	56	868
Ettinger, Joel, assignor of four-fifths to C. A., C. D., J. W., and J. B. Godcharles, Milton, Pa. Machine for making metal washers.....	457,950	Aug. 18	1685	{ 442 443 }	{ 56 56 }	{ 867 867 }
Euchenhofer, Edward E., (See Weinman, Euchenhofer, and Kinnard.)						
Euchenhofer, Edward E., assignor of two-thirds to C. J. Weinman and S. E. Ball, Dayton, Ohio. Candy-mold.....	459,700	Sept. 15	1837	462	56	1436
Eulenfeld, Ferdinand von, Breslau, Germany. Device for tightening saddle-girths.....	455,745	July 14	738	194	56	151
Eureka Box Company. (See Price, George W., assignor.)						
Eureka Car Coupler Company. (See Grover, Henry M., assignor.)						
Eureka Cigar Machine Company. (See Hagen, Ferdinand J., assignor.) (Reissue.)						
Eureka Cigar Machine Company. (See Hagen and Wieland, assignors.)						
Eureka Electric Company. (See Pierce, Charles A., assignor.)						
Eustis, John P., New York, N. Y. Egg-poacher.....	450,564	Apr. 14	1377	340	55	272
Evans, Arthur K., Toronto, Canada. Poker chip or counter holder.....	451,722	May 5	427	103	55	660
Evans, Aurelius B. (See Bower and Evans.)						
Evans, Austin C., Springfield, Ohio. Check-roller.....	445,397	Jan. 27	2252	585	54	465
Evans, Austin C., deceased; L. C. Evans, Springfield, Ohio, administrator. Planter.....	462,542	Nov. 3	504	123	57	647
Evans, B. L., et al. (See George, Albert F., assignor.)						
Evans, Benjamin C. (See Hale and Durringer, assignors.)						
Evans, Charles H., Jackson, Mich., assignor to Fahnehjelm Incandescent Gas Light Company, Chicago, Ill. Gas-stove.....	448,579	Mar. 17	2127	{ 533 534 }	{ 54 54 }	{ 1542 1542 }
Evans, Charles H., assignor to Fahnehjelm Incandescent Gas Light Company, Chicago, Ill. Tire-heating device.....	461,095	Oct. 13	845	218	57	170
Evans, Charles T. (See Tincher, James W., assignor.)						
Evans, Charles T., Philadelphia, Pa. Blank for saws.....	450,836	Apr. 21	1850	450	55	374
Evans, Clarence A., Upland, Pa. Pantaloon hanger and stretcher.....	457,189	Aug. 4	397	103	56	608
Evans, Clarence A., Upland, Pa. Pantaloon hanger and stretcher.....	457,190	Aug. 4	398	104	56	608
Evans, D. Walter. (See Lang and Evans.)						
Evans, David L., Cleveland, Ohio. Rolls for manufacturing car-axes.....	444,746	Jan. 13	1204	312	54	244
Evans, Edwin W., Philadelphia, Pa. Gas-engine.....	452,568	May 19	1820	457	55	933
Evans, Ellwood. (See Heulings and Evans.)						
Evans, George. (See Freeman, Albert A., assignor.)						
Evans, George, Lyon, Miss. Wagon end-gate.....	445,167	Jan. 27	1918	495	54	399
Evans, George, New York, N. Y. Dental thermal instrument.....	445,766	Feb. 3	418	104	54	595
Evans, George, New York, N. Y. Dental tool for shaping tooth-crowns.....	449,408	Mar. 31	3489	878	54	1813
Evans, George F., Somerville, Mass. Wire-drawing machine.....	448,214	Mar. 17	1539	394	54	1429
Evans, George F., Somerville, Mass. Wire-drawing machine.....	448,215	Mar. 17	1540	394	54	1429
Evans, George F., Somerville, Mass. Spark-arrester.....	448,216	Mar. 17	1541	394	54	1430
Evans, George F., Somerville, Mass. Frictional gearing.....	453,630	June 9	717	185	55	1292
Evans, Isaac J. (See Swan, Charles E., assignor.)						
Evans, John. (See Thompson, Franklin R., assignor.)						
Evans, John, Philadelphia, Pa. Hot-air furnace.....	454,264	June 16	1619	425	55	1473
Evans, John, Philadelphia, Pa. Grate.....	454,464	June 23	1932	504	55	1541
Evans, John, Providence, R. I. Coin-actuating mechanism.....	462,479	Nov. 3	408	100	57	628
Evans, John B., Philadelphia, Pa. Bicycle.....	464,789	Dec. 8	1214	302	57	1375
Evans, John B., Philadelphia, Pa. Bicycle.....	464,790	Dec. 8	1216	303	57	1376
Evans, John B., assignor of one-half to H. Schwartz, Philadelphia, Pa. Bicycle.....	449,581	Mar. 31	3755	943	54	1863
Evans, John E., and W. J. Bear, Columbus, Ohio. Water cut-off.....	464,323	Dec. 1	503	120	57	1230
Evans, John H., Philadelphia, Pa. Corner-iron for cars.....	451,116	Apr. 28	2272	563	55	466
Evans, John H., Philadelphia, Pa. Stake-pocket.....	451,117	Apr. 28	2273	563	55	466
Evans, John W., Cleveland, Ohio. Apparatus for evaporating naphtha.....	449,215	Mar. 31	3138	{ 791 792 }	{ 54 54 }	{ 1750 1750 }
Evans, Jonathan E., Philadelphia, Pa. Coin-mailing card.....	464,728	Dec. 8	1122	278	57	1357
Evans, Louis C., administrator. (See Evans, Austin C.)						
Evans, Milton H. (See Wilkins, Harry, assignor.)						
Evans, Milton H., Jr., Chicago, Ill. Shovel-blank.....	451,469	May 5	39	10	55	586
Evans, Owen F., assignor of one-fourth to W. H. Slade, Columbus, Ohio. Gearing for electric-motor cars.....	465,592	Dec. 22	2547	{ 649 650 }	{ 57 57 }	{ 1648 1648 }
Evans, Richard. (See Dennis and Evans.)						
Evans, Samuel W., Jr. (See Glenn, Edmund L., assignor.)						
Evans, Thomas F., Lititz, Pa. Car-mover.....	458,889	Sept. 1	538	131	56	1168
Evans, Thomas R., Society Hill, S. C. Automatic fan.....	446,204	Feb. 10	1145	280	54	738
Evans, Walter A., and T. Cowan, Winnipeg, Canada. Driving mechanism for velocipedes.....	459,682	Sept. 15	1807	454	56	1430
Evans, William, Philadelphia, Pa. Cylindrical cutter.....	451,118	Apr. 28	2274	563	55	466
Evans, William, Philadelphia, Pa. Bell-mouth coupling for locomotive sand-pipes.....	460,530	Sept. 29	3123	781	56	1697
Evans, William, Philadelphia, Pa. Machine for treating hides or skins.....	462,838	Nov. 10	986	255	57	751
Evans, William, Philadelphia, Pa. Locomotive-spring and making the same.....	465,661	Dec. 22	2656	{ 667 668 }	{ 57 57 }	{ 1668 1668 }
Evans, William, assignor to J. Reagan, Philadelphia, Pa. Circulating water-grate and feed-water heater.....	459,274	Sept. 8	1140	279	56	1295
Evans, William, assignor to J. Reagan, Philadelphia, Pa. Feed-water heater.....	460,528	Sept. 29	3120	780	56	1697
Evans, William, assignor to Reagan Manufacturing Company, Philadelphia, Pa. Locomotive sand-pipe end.....	460,529	Sept. 29	3121	780	56	1697
Evans, William F. (See Lytle, Evans, and Kimber.)						
Evans, William H., Baltimore, Md. Machine for molding circular and oval openings in plumbers' slabs.....	462,760	Nov. 10	854	{ 223 224 }	{ 57 57 }	{ 724 724 }
Evans, William H., Baltimore, Md. Machine for molding plumbers' rounded-corner slabs.....	463,144	Nov. 17	1473	{ 352 383 }	{ 57 57 }	{ 854 854 }
Evans, William J., and W. H. Kunert, Minneapolis, Minn. Box-pull.....	462,541	Nov. 3	504	123	57	647
Evans, William W., Washington, D. C. Type-writing machine.....	445,398	Jan. 27	2254	{ 565 566 }	{ 54 54 }	{ 466 466 }
Evants, William C., Oakland, Cal. Fruit-pitter.....	453,042	May 26	2580	652	55	1090
Evarts, Frank H., Arlington, Kans. Windmill.....	463,172	Dec. 15	1859	472	57	1507

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Evatt, George L., Port Hope, Canada. Ratchet-drill.	462,543	Nov. 3	507	124	57	648
Eveland, William L., Port Stanley, Canada, assignor of one-half to H. W., and J. Stephens, Axle and journal box.	452,751	May 19	2117	532	55	991
Evered, Charles H. (See Evered, William, assignor.)						
Evered, William, Detroit, assignor of one-half to C. H. Evered, Wyandotte, Mich. Pump.	466,094	Dec. 29	3358	858	57	1815
Everest, Charles M., Rochester, N. Y. Lubricator.	456,233	July 21	1475	{ 392 393 }	56	298
Everest, Laban J., assignor of one-fourth to H. C. Betterman, Omaha, Nebr. Rotary engine.	446,061	Feb. 10	903	219	54	695
Everett, Charles D. (See Edwards and Everett.)						
Everett, Charles J. (See Beylikgy, Marc W., assignor.)						
Everett, Edward. (See Thayer and Everett.)						
Everett, John H. D., Sault Ste. Marie, Mich. Clothes-drier.	458,418	Aug. 25	2442	595	56	1017
Everett, Milton, San Antonio, Tex. Ticket-reel.	444,342	Jan. 6	562	144	54	112
Everett, Thomas I., et al. (See Courtright, Edgar, assignor.)						
Everhard, Mary M., St. Joseph, Mich. Kneading-board.	445,443	Jan. 27	2318	602	54	479
Everiss, Joseph E., Adrian, Mich. Coffin-fastener.	448,946	Mar. 24	2721	686	54	1662
Everitt, Arthur. (See Anthony and Everitt.)						
Everitt, James A., Indianapolis, Ind. Garden-cultivator.	460,633	Oct. 6	161	40	57	34
Eversmeyer, Anna L., La Porte City, Iowa. Clothes-drainer.	460,819	Oct. 6	444	112	57	89
Eversol, Cyrus, Springfield, Mo. Balanced slide-valve.	462,119	Oct. 27	2555	634	57	511
Everson, Charles R., Macedon, N. Y. Metal roof.	451,650	May 5	316	77	55	639
Everts, Ambrose B., et al. (See Pease, Roger S., assignor.)						
Everts, Emmett M., Nashville, Mich. Ironing-table.	452,427	May 19	1593	395	55	893
Evinger, Noah, assignor of one-half to C. Wood, Terre Haute, Ind. Churn.	445,883	Feb. 3	609	150	54	631
Ellwell, Joseph E., et al. (See Josef, Edward E., assignor.)						
Ewing, Edwin C., assignor to Wheeling Corrugating Company, Wheeling, W. Va. Ornamental metal plate.	458,448	Aug. 25	2487	605	56	1025
Ewing, F. P. (See De Golier, Harry C., assignor.)						
Ewing, Franklin, Jr., Atlantic Highlands, N. J. Apparatus for applying sheathing to the hulls of vessels, &c.	445,502	Jan. 27	2409	628	54	495
Ewing, John H., assignor to Wheeling Corrugating Company, Wheeling, W. Va. Ornamental metal panel for ceilings, walls, &c.	457,310	Aug. 4	614	162	56	647
Ewing, Reuben H., assignor of one-half to J. B. Wallace, Mondamin, Iowa. Bee-hive.	462,761	Nov. 10	857	225	57	735
Ewinger, William O., Burlington, Iowa. Water-heater.	466,006	Dec. 29	3224	821	57	1787
Excelsior Electric Company. (See Hochhausen, William, assignor.)						
Excelsior Electric Company. (See Wessel, Ferdinand A., assignor.)						
Excelsior Elevator Guard and Hatch Cover Company. (See Fraser, Daniel, assignor.)						
Excelsior Needle Company. (See Dayton, William H., assignor.)						
Excelsior Quilting Company. (See Koch, Matthias, assignor.)						
Excelsior Quilting Company. (See Schultz, Louis, assignor.)						
Exum, William R., Little Rock, Ark. Wagon-wheel-holding appliance.	454,680	June 23	2224	586	55	1604
Eyelet Button Hole Attachment Company. (See Fletcher, Elmer, assignor.)						
Eynard, Louis, Paris, France. Motor.	446,945	Feb. 24	2352	585	54	996
Eynon, William, and W. Seaman, Wilmington, Del. Manufacture of creased bars for horse-shoe-blanks.	446,735	Feb. 17	2000	498	54	920
Ezdorf, Richard. (See Suess, Werner, assignor.)						
F. W. Devoe & Company. (See Westerfield, George W., Jr., assignor.)						
Faber, Eberhard. (See Mussinan, Oscar, Jr., assignor.)						
Faber, Eberhard, New Brighton, N. Y. Lead or crayon holder.	444,148	Jan. 6	280	67	54	57
Faber, Eberhard, West New Brighton, N. Y. Means for attaching rubber tips to pencils.	457,579	Aug. 11	1077	275	56	742
Faber, Lothar W., Port Richmond, N. Y. Erasive-rubber holder.	461,205	Oct. 13	1024	260	57	203
Faber, Peter. (See House, Joseph L., assignor.)						
Fabery, Robert, et al. (See Kerstein, Max, assignor.)						
Fabian, Paul, Chemnitz, Germany. Friction-brake for railways.	461,825	Oct. 27	2096	517	57	423
Fachs, Henry, New York, N. Y. Spread-eagle.	459,683	Sept. 15	1808	454	56	1431
Fagan, John K. (See Jennings and Fagan.)						
Fagan, Thomas F. (See Jones and Fagan.)						
Fager, Anthony, assignor to I. Harter and F. E. Kohler, Canton, Ohio. Saw-set.	447,732	Mar. 3	713	178	54	1253
Fagoaga, Julian, Barcelona, Spain. Water-elevator.	449,252	Mar. 31	3201	807	54	1762
Fahey, Michael J., Fort Madison, Iowa. Stove-pipe thimble.	464,609	Dec. 8	919	226	57	1321
Fahnehjelm Incandescent Gas Light Company. (See Evans, Charles H., assignor.)						
Fahnehjelm Incandescent Gas Light Company. (See Fahnehjelm, Otto B., assignor.)						
Fahnehjelm, Otto B., Stockholm, Sweden, assignor, by mesne assignments, to Fahnehjelm Incandescent Gas Light Company, Chicago, Ill. Producing light by incandescence.	450,099	Apr. 7	664	168	55	130
Fahnehjelm, Otto B., Stockholm, Sweden, assignor, by mesne assignments, to Fahnehjelm Incandescent Gas Light Company, Chicago, Ill. Incandescent.	450,123	Apr. 7	698	176	55	136
Fahnestock, John, Brooklyn, N. Y. Apparatus for burning liquid fuel in furnaces.	459,701	Sept. 15	1837	462	56	1437
Fahnley, William J., Lynn, assignor to J. Q. A. Whittemore, Boston, Mass. Heel-nailing machine.	454,726	June 23	2351	604	55	1619
Fahnley, William J., and E. H. Taylor, Lynn, assignors to J. Q. A. Whittemore, Boston, Mass. Heel-making machine.	446,334	Feb. 10	1375	{ 335 336 }	54	785
Fahrig, Ernst, London, England. Manufacturing a composition applicable for electrical insulating purposes, &c.	460,056	Sept. 22	2381	.....	56	1546
Fahrney, Andrew, Milledgeville, Ill. Automatic pitman-starter.	462,811	Nov. 10	942	245	57	742
Fahrney, Carlo Polo, Ill. Road-cart.	454,859	June 30	2568	660	55	1665
Fabys Watch Case Company. (See Cook, Henry F., assignor.)						
Fair, David. (See Friegel, Frederick M., assignor.)						
Fairbairn, Charles, Sale, England. Apparatus for forging and finishing circular articles.	451,470	May 5	39	10	55	586
Fairbank Canning Company. (See Hopper, George B., assignor.)						
Fairbanks & Company, E. & T. (See Huggett, Charles H., assignor.)						
Fairbanks & Company, E. & T. (See Stromyer, John H., assignor.)						
Fairchild, Frederick S. (See Lockwood, Frederick J., assignor.)						
Fairchild, Frederick S., Bridgeport, Conn. Soap-powder canister.	464,315	Dec. 1	492	117	57	1227
Faircloth, James. (See Bunn and Faircloth.)	461,826	Oct. 27	2097	517	57	423
Fairfield, Hadley P. (See McKay and Fairfield.)						
Fairfield, John M., assignor to American Writing Machine Company, Hartford, Conn. Type-writing machine.	456,234	July 21	1476	393	56	299
Fairfield, John M., assignor to American Writing Machine Company, Hartford, Conn. Type-writing machine.	458,675	Sept. 1	201	47	56	1104
Fairfield, John M., and G. I. Francis, assignors to American Writing Machine Company, Hartford, Conn. Type-writing machine.	465,042	Dec. 15	1630	415	57	1465

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Fairfield, Roswell M. (See Eaton, Edwin D., assignor.)						
Fairfield, Roswell M., <i>et al.</i> (See Edwards, William C., assignor.)						
Fairman, James, New York, N. Y. Musical instrument	448,217	Mar. 17	1543	395	54	1430
Fairmount Machine Company, (See Brown, Thomas S., assignor.)						
Fales, Edward, Philadelphia, Pa. Apparatus for generating steam	445,884	Feb. 3	610	150	54	631
Fales, Edward, Boston, Mass. Method of and apparatus for generating steam	448,947	Mar. 24	2722	686 687	54	1662
Fales, Lewis F., Walpole, Mass. Machine for feeding and separating paper	447,766	Mar. 10	797	198	54	1276
Fales, Orange B., Canfield, Ohio. Horse-blanket	463,381	Nov. 17	1854	485	57	926
Fales, William H., Providence, R. I. Tilting support for carboys	459,945	Sept. 22	2221	558	56	1516
Falk, Maurice, Pittsburg, Pa. Trousers	454,208	June 16	1542	406	55	1458
Falkenhausen, Hugo. (See Dittmar and Falkenhausen.)						
Falkingham, Edwin, San Francisco, Cal. Card-shuffler	449,316	Mar. 31	3319	837	54	1782
Fall River Machine Company. (See Miley, William H., assignor.)						
Fallis, George T., St. Joseph, Mo. Toy buzzer	447,638	Mar. 3	594	147	54	1229
Fallis, John M., Indianola, Iowa. Potato-digger	463,661	Nov. 24	2309	606	57	1022
Falls Rivet and Machine Company. (See Schmitt, Edward D., assignor.)						
Fancher, Lewis N., Kansas City, Mo. Electric belt	456,021	July 14	1159	304	56	228
Fanning, John J., assignor of one-half to J. Baisrow, Chicago, Ill. Incandescent-electric-lamp controller	454,038	June 16	1292	337	55	1410
Fanning, John T., Minneapolis, Minn. End bearing for car-axes	462,037	Oct. 27	2424	601	57	487
Fanning, Robert C., <i>et al.</i> (See Whittier, Alcibiades J., assignor.)						
Fanning, William H., Lapeer, Mich. Road-cart	445,427	Jan. 27	2301	597	54	475
Fanshawe, William J., Brooklyn, N. Y. Glove	461,744	Oct. 20	1949	484	57	387
Fant, Enoch W., W. B. Anderson, and S. W. Richard, Franklin, W. Va. Tool-handle attachment	447,052	Feb. 24	2534	630	54	1031
Farbenfabriken, vormals Fr. Bayer & Co. (See Duisberg, Carl, assignor.)						
Farbenfabriken, vormals Fr. Bayer & Co. (See Lauch and Krekeler, assignors.)						
Farbenfabriken, vormals Fr. Bayer & Co. (See Pfitzinger, William, assignor.)						
Farbenfabriken, vormals Fr. Bayer & Co. (See Schmidt, Robert E., assignor.)						
Farbenfabriken, vormals Fr. Bayer & Co. (See Ulrich, Moritz, assignor.)						
Farbwerke, vormals Meister, Lucius & Brünig. (See Bongartz, Joseph, assignor.)						
Farbwerke, vormals Meister, Lucius & Brünig. (See Cobenzl, Albert, assignor.)						
Farbwerke, vormals Meister, Lucius & Brünig. (See Ebert, Gustav, assignor.)						
Farbwerke, vormals Meister, Lucius & Brünig. (See Herrmann, Albert, assignor.)						
Farbwerke, vormals Meister, Lucius & Brünig. (See Homolka, Benno, assignor.)						
Farbwerke, vormals Meister, Lucius & Brünig. (See Kuzel, Hans, assignor.)						
Farbwerke, vormals Meister, Lucius & Brünig. (See Ostermayer, Eugen, assignor.)						
Farbwerke, vormals Meister, Lucius & Brünig. (See Reisenegger, Hermann, assignor.)						
Fargo, Charles G., <i>et al.</i> (See Dickover and Scott, assignors.)						
Fargo, Enoch J., Lake Mills, Wis. Butter-worker	461,936	Oct. 27	2279	564	57	459
Faries, Royal P., Wichita, Kans. Electric-motor truck	445,051	Jan. 20	1729	445	54	354
Faries, Royal P., Wichita, Kans. Boiler-cleaner	449,671	Apr. 7	37	9	55	9
Faris, Lafayette, Pricetown, Ohio. Combined hub attacher and lubricator	455,188	June 30	3181	806	55	1783
Faris, Lafayette, assignor of one-half to T. W. De Hass, Pricetown, Ohio. Hub-attaching device	453,968	June 9	1192	311	55	1364
Faris, Lafayette, assignor of one-half to T. W. De Hass and J. H. Gossett, Pricetown, Ohio. Device for securing wheels to axles	446,335	Feb. 10	1377	336	54	785
Farley, Hugh, Philadelphia, Pa. Curtain-support	453,631	June 9	718	185	55	1292
Farley, James, administrator. (See Kennedy, Thomas.)						
Farley, James, Waukesha, Wis. Self-lubricating journal	459,628	Sept. 15	1727	433	56	1414
Farley, John G., Verbena, Ala. Bale-tie	462,942	Nov. 10	1160	300	57	784
Farley, John P., Kansas City, Mo. Balanced ball-cock	464,249	Dec. 1	386	92	57	1207
Farlow, John S., assignor to T. A. and G. A. Smyth, C. Stewart, and S. Limering, Philadelphia, Pa. Bunker-cover fastener	458,525	Aug. 25	2615	636	56	1050
Farmer, Charles H., New York, N. Y. Buckle	446,086	Feb. 3	501	120	54	609
Farmer, Henry, assignor of one-half to F. Hewlin, Richmond, Ind. Lawn-mower	450,805	Sept. 22	2428	607	56	1556
Farmer, James, Barry, Ill. Self-adjusting drill-frame	458,526	Aug. 25	2616	637	56	1050
Farmer, Julius M., assignor of nine-sixteenths to M. H. Case, Milwaukee, Wis. Key-fastener	452,779	May 26	2157	540	55	1007
Farmer, Julius M., assignor of one-half to M. H. Case, Milwaukee, Wis. Gas-burner	454,640	June 23	2226	573	55	1593
Farmer, Julius M., assignor of two-thirds to G. A. and W. B. Neeves, Milwaukee, Wis. Thill-coupling	463,699	Nov. 24	2275	621	57	1034
Farmer, Leslie P., South Orange, N. J. Railway-car	446,984	Feb. 24	2414	600 601	54	1009
Farmer, Moses G., Eliot, Me. Electric converter	448,644	Mar. 24	2254	565 566	54	1572
Farmer, Moses G., Eliot, Me. Printing-telegraph	460,572	Oct. 6	47	11	57	11
Farmer, Theodore P., Boston, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Buffer for store-service apparatus	452,474	May 19	1684	424	55	907
Farmer, Theodore P., Boston, Mass., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus	455,315	July 7	27	7	56	8
Farmer, Thomas, Jr., Bloomington, Ill. Heater	446,673	Feb. 17	1900	471	54	901
Farmer, Thomas, Jr., Detroit, Mich. Trunk	455,612	July 7	509	132	56	98
Farnam, Harriet A., Chicago, Ill. Swimming device	460,333	Sept. 29	2817	701	56	1638
Farnell, George T., Coahoma, N. C. Cash-carrier	451,471	May 5	42	11	55	587
Farner, John J., Nokomis, Ill. Metallic fence-post	460,573	Oct. 6	49	12	57	11
Farnham, Edwin G., Dover, Me. Cow-tail holder	444,428	Jan. 13	702	183	54	147
Farnham, Isaiah H., Wellesley, assignor to New England Telephone and Telegraph Company, Boston, Mass. Signaling apparatus	444,108	Jan. 6	204	50	54	42
Farnham, Isaiah H., Wellesley, assignor to New England Telephone and Telegraph Company, Boston, Mass. Overhead crossing appliance for electric railways	448,711	Mar. 24	2363	592	54	1594
Farnham, Isaiah H., Wellesley, assignor to New England Telephone and Telegraph Company, Boston, Mass. Automatic toll-box	451,922	May 12	742	187	55	726
Farnham, Isaiah H., Wellesley, assignor to New England Telephone and Telegraph Company, Boston, Mass. Electro phonometer and phonoscope	455,815	July 14	856	224	56	172
Farnham, Reuben G., Elbridge, assignor of one-half to C. M. Warner, Jordan, N. Y. Composition for plastering	446,382	Feb. 10	1438	.....	54	798
Farnsworth, John E., assignor to Farnsworth & Williams, Bazine, Kans. Combination-lock	447,639	Mar. 3	595	147	54	1230
Farnsworth, Levi A., Fayette, Ohio. Envelope-holder	456,947	Aug. 4	47	10	56	541
Farnsworth, William R., Turner's Falls, Mass. Expandable shaft	459,300	Sept. 8	1029	251	56	1272
Farnsworth & Williams. (See Farnsworth, John E., assignor.)						
Farnum, William C., Arlington, Vt. Machinery for tapering the ends of bars or rods for making coiled springs	451,636	May 5	295	72	55	634

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Farquhar, Arthur B., and H. W. Eisenhart, York, Pa.; said Eisenhart assignor to said Farquhar. Holder for spring harrow-teeth.	465,173	Dec. 15	1861	472	57	1507
Farquhar, Francis. (See Farquhar, Milton J., F., and H. B.)						
Farquhar, Henry B. (See Farquhar, Milton J., F., and H. B.)						
Farquhar, Milton J., F., and H. B., Wilmington, Ohio. Dust-screen.	453,885	June 9	1084	283	55	1361
Farquharson, Henry C., New York, N. Y. Car-step.	459,169	Sept. 8	986	241	56	1263
Farquharson, Henry C., New York, N. Y. Railway-car step.	459,170	Sept. 8	987	241	56	1264
Farr, Charles E., Saxton's River, Vt. Strap for connecting pickers with picker-sticks of looms.	454,641	June 23	2227	573	55	1593
Farr, Lewis W., Massena, N. Y. Milk-aerator.	458,692	Sept. 1	227	54	56	1109
Farrand, William C., Arlington, N. J., assignor of one-half to M. Radde, New York, N. Y. Soap-bubble toy.	445,807	Feb. 3	502	121	54	610
Farrar, Chilion M., Buffalo, N. Y. Reversing-gear for steam-engines.	446,992	Feb. 24	2425	603	54	1011
Farrar, Marcus O., and C. C. Howe, Bristol, N. H. Composition of matter for insulating purposes.	461,467	Oct. 20	1459		57	297
Farrar, Rufus A., assignor of one-half to E. W. Tingue, New York, N. Y. Rock-drill.	455,963	July 14	1068	280	56	211
Farrar, William B., Greensborough, N. C. Churn.	455,189	June 30	3183	807	55	1783
Farrar, William B., Greensborough, N. C. Fastening attachment for bedsteads.	457,711	Aug. 11	1271	329	56	780
Farrrel Foundry and Machine Company. (See Bowen, David R., assignor.)						
Farrrel, John, New York, N. Y. Bolt-work for safes.	451,417	Apr. 28	2670	682	55	559
Farrrel, John, New York, N. Y. Safe.	453,181	June 2	7	2	55	1150
Farrrel, John H., Camden, N. J., assignor to H. W. Maybaum, Philadelphia, Pa. Pocket-lamp.	451,301	Apr. 28	2591	639	55	527
Farrrell, George W., Anusale Forks, N. Y. Vehicle running-gear.	452,915	May 26	2372	601	55	1048
Farrrell, John, et al. (See Fugli, Cortez V., assignor.)						
Farrrell, William F., Jamestown, N. D. Grain-measuring attachment for thrashing-machines.	454,727	June 23	2352	604	55	1619
Farrington, Clarence H., Milford, Mass. Upper-machine.	446,674	Feb. 17	1901	472	54	901
Farrington, Clarence H., Milford, Mass. Holder for carbon brushes of commutators.	455,856	July 14	905	237	56	182
Farrington, George B., Unionville, Conn. Machine for making paper shells.	454,113	June 16	1397	365	55	1430
Farrington, John B. (See Davis and Farrington.)						
Farris, Benjamin B., Rocky Ford, Ga. Wrench.	448,013	Mar. 10	1230	312	54	1358
Farrow, John T., Newport, assignor of one-half to T. E. Livezey, Covington, Ky. Attachment for automatically advancing the knees of saw-mills.	446,832	Feb. 17	2147	534	54	952
Farrow, Leroy R. (See Hall and Farrow.)						
Farthing, George H., San José, Cal. Preparing skins.	458,828	Sept. 1	436		56	1148
Farwell, Charles, et al. (See Banks, George L., assignor.)						
Farwell, Charles B., et al. (See Banks, George L., assignor.)						
Farwell, Frank M., Chicago, Ill. Automatic gong.	456,482	July 21	1877	495	56	374
Farwell, Frank M., Minneapolis, Minn. Electric coupling.	460,048	Sept. 22	2371	592	56	1544
Farwell, George A., Lowell, assignor to R. W. Pratt, Boston, Mass. Gas and smoke consumer for steam-boiler furnaces.	452,344	May 12	1461	362	55	857
Farwell, Pulaski, Frederick, Ill. Lock-lever.	445,328	Jan. 27	2154	558	54	446
Fascher, Hermann, St. George, Utah Ter. Piano tuning-pin.	460,124	Sept. 29	2497	622	56	1575
Faske, Joseph, Cincinnati, Ohio. Machine for drilling the tires and felloes of wheels of road-vehicles.	446,856	Feb. 24	2195	546	54	970
Fashion, Elias E., Emporia, Kans. Step for cars.	447,304	Mar. 3	30	8	54	1124
Fasoldt, Ernest C., assignor of one-half to J. B. Thacher, Albany, N. Y. Pressure-reducer for steam or other fluids.	449,071	Mar. 24	2909	738	54	1698
Fasoldt, Ernest C., assignor of one-half to J. B. Thacher, Albany, N. Y. Air-compressing pump.	464,223	Dec. 1	342	83	57	1198
Fasoldt, Ernest C., assignor of one-half to J. B. Thacher, Albany, N. Y. Pressure-regulator.	466,275	Dec. 29	3638	930	57	1868
Fasoldt, Ernest M., Albany, N. Y. Mainspring for watches.	448,191	Mar. 10	1486	379	54	1411
Fassett, Elias S., Charleston, Mo. Clothes-drier.	458,829	Sept. 1	437	105	56	1149
Faul, William J., Brooklyn, N. Y. Lubricator.	445,013	Jan. 20	1669	428	54	342
Faulhaber, Friedrich A. H., and C. F. Koch, Schwabisch Hall, Germany. Hinge.	453,803	June 9	982	255	55	1342
Faulkner, James J., assignor to National Cotton Seed Oil and Huller Company, Memphis, Tenn. Machine for delinting cotton-seed.	454,465	June 23	1934	504	55	1541
Faulkner, James J., assignor to National Cotton Seed Oil and Huller Company, Memphis, Tenn. Cotton-seed huller.	456,506	July 21	1914	506	56	382
Faulkner, James J., assignor of two-thirds to National Cotton Seed Oil and Huller Company, Memphis, Tenn. Cotton-seed-linting machine.	457,263	Aug. 4	531	139	56	631
Faulkner, James J., assignor of two-thirds to National Cotton Seed Oil and Huller Company, Memphis, Tenn. Cotton-seed-linting machine.	462,632	Nov. 3	647	163	57	676
Faulkner, James J., assignor of two-thirds to National Cotton Seed Oil and Huller Company, Memphis, Tenn. Cotton-seed-linting machine.	462,633	Nov. 3	649	164	57	676
Faulkner, James J., assignor of two-thirds to National Cotton Seed Oil and Huller Company, Memphis, Tenn. Cotton-seed linter.	462,634	Nov. 3	650	164	57	676
Faulkner, James J., assignor of two-thirds to National Cotton Seed Oil and Huller Company, Memphis, Tenn. Cotton-seed-linting machine.	462,635	Nov. 3	651	165	57	677
Faunce, Albert B. (See Cabell, Milton S., assignor.)						
Faunce, Zachary T., assignor of one-half to C. P. Hilliker, Camden, N. J. Blackboard-ruler.	466,226	Dec. 29	3561	912	57	1853
Faustmann, William, Brooklyn, assignor to Hammel, Riglander & Co., New York, N. Y. Engraver's vise.	461,216	Oct. 13	1048	266	57	209
Favor, Lorenzo B., assignor to Thermal Electric Company, Gloucester, Mass. Multiple fuse-block.	452,875	May 26	2303	581	55	1036
Favor, Lorenzo B., assignor to Thermal Electric Company, Gloucester, Mass. Thermal cut-out.	461,570	Oct. 20	1676	410	57	336
Fawcett, Samuel, and H. F. Smith, Rochester, N. Y. Die for making pipe-wrenches.	464,352	Dec. 1	547	133	57	1238
Fawkes, Jacob H., Chicago, Ill. Cigar-case.	448,948	Mar. 24	2724	688	54	1663
Fawkes, Joseph W., Sr., and J. W., Jr., Burbank, Cal. Card-exhibiting device.	446,439	Feb. 17	1548	380	54	831
Faxon, Frank G., Mount Morris, N. Y. Tuning mechanism for stringed instruments.	450,808	Apr. 21	1801	437	55	366
Faxon, Frank G., Mount Morris, N. Y., assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-pendant.	450,579	Apr. 14	1395	344	55	275
Fay, Charles, Philadelphia, Pa. Canvas-stretcher frame.	449,875	Apr. 7	346	88	55	69
Fay, Edmund S., et al. (See Hayes, John W., assignor.)						
Fay, Forbes B., assignor of one-half to N. Taylor, Worcester, Mass. Card-table.	456,698	July 28	2237	592	56	452

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Pay, Milton L., <i>et al.</i> (See Chilson, Libbeus, assignor.)						
Pay, S. M. (See Julian, Gideon, assignor.)						
Pay, Thomas J., New York, N. Y., assignor to Maine Electrical Improvement Company, Brunswick, Me. Incandescent-lamp socket.....	462,677	Nov. 3	728	189	57	691
Fayol, Amédée, Bordeaux, France. Chromatic-printing press.....	447,507	Mar. 3	399	97.98	54	1193
Fayol, Amédée, Bordeaux, France. Inking mechanism for printing-machines.....	448,749	Mar. 24	2429	607	54	1606
Fea, John, and W. H. Hoag, Amsterdam, N. Y. Arch-plate for steam-boiler furnaces.....	448,218	Mar. 17	1545	395	54	1430
Feather, Phineas, Stow, Mass. Spindle-band tension-regulator for spinning-machines.....	459,454	Sept. 15	1435	{ 360 361 }	56	1361
Fee Brothers. (See Elliott, Abraham, assignor.)						
Feeny, John W. (See Marston and Feeny.)						
Fefel, Henry H., assignor to M. A. Cuming, New York, N. Y. Sewing-machine.....	455,190	June 30	3185	807	55	1784
Fefel, Henry H., assignor to T. W. Bracher, New York, N. Y. Combined fabric and threads in overseas work.....	459,720	Sept. 15	1868	{ 469 470 }	56	1442
Fehleisen, Adolph E., assignor of one-half to C. B. Stone, Denver, Colo. Hitching-post.....	444,177	Jan. 6	326	79.80	54	66
Fehr, Louis A., New York, N. Y. Electric subway-switch.....	463,808	Nov. 24	2525	659	57	1063
Fehr, Simon, Cincinnati, Ohio. Bread, meat, and vegetable slicer.....	460,715	Oct. 6	297	72	57	58
Feigl, Morris, <i>et al.</i> (See Cole, Erskine A., assignor.)						
Fell, Christian, New Utrecht, N. Y. Brake-shoe fastening.....	458,890	Sept. 1	541	131	56	1169
Fellbogen, Morris, New York, N. Y., assignor to G. Lindenthal, Pittsburg, Pa. System of electrical distribution.....	456,888	July 28	2558	672	56	510
Fellbogen, Morris, New York, N. Y., assignor to G. Lindenthal, Pittsburg, Pa. Electric-circuit breaker for secondary generators.....	456,889	July 28	2559	673	56	510
Feine, August, C. Koch, and A. Miller, Buffalo, N. Y. Vestibule-hood for cars.....	454,996	June 30	2849	{ 724 725 }	55	1719
Feist, Leopold. (See Eickershoff, John H., assignor.)						
Feister, Henry P., Philadelphia, Pa. Apparatus for making leaf-hinges for books.....	444,821	Jan. 20	1320	342	54	275
Feister, Henry P., Philadelphia, Pa. Printer's chase.....	451,923	May 12	745	187	55	726
Feister, Henry P., Philadelphia, Pa., assignor to Essington Buttonhole Finishing Machine Company, of New Jersey. Button-hole-barring machine.....	451,000	Apr. 21	2107	520	55	424
Feister, Henry P., Philadelphia, Pa., assignor to Feister Printing Company, of Pennsylvania. Printing and binding machine.....	452,933	May 26	2403	{ 607 608 609 }	55	1054
Feister Printing Company. (See Feister, Henry P., assignor.)						
Feister Printing Company. (See Hunter, Rudolph M., assignor.)						
Felbel, Jacob. (See Steiger, Andrew W., assignor.)						
Feldman, Benson M., <i>et al.</i> (See Singer, Jacob, assignor.)						
Feldpanche, Alphonse. (See Patterson and Feldpanche.)						
Felix, Numa J., Brooklyn, N. Y. Watch-case spring.....	455,436	July 7	221	56	56	45
Felix, Numa J., Brooklyn, N. Y. Watch-case spring.....	455,437	July 7	222	57	56	45
Felker, Melancthon O., Springfield, Ohio. Combined cane and whip.....	459,081	Sept. 8	836	203	56	1234
Felker, Melancthon O., Springfield, Ohio. Fishing-rod and cane.....	465,254	Dec. 15	1977	505	57	1539
Felldin, Abraham, Auburn, N. Y. Piano-tuning apparatus.....	449,409	Mar. 31	3490	878	54	1813
Fellinger, Steven, Bloomington, Ill. Clock.....	462,000	Oct. 27	2367	587	57	476
Fellner, Johann C., and C. Ziegler, Bockenheim, Germany. Kiln for drying or baking purposes.....	455,191	June 30	3186	808	55	1784
Fellner, Johann C., and C. Ziegler, Bockenheim, Germany. Kiln for drying or baking purposes.....	455,192	June 30	3188	809	55	1784
Fellows, Byron W., Beverly, Mass. Propeller.....	462,897	Nov. 10	1083	281	57	769
Felt, Dorr E., Chicago, Ill. Recording computing-machine.....	465,255	Dec. 15	1979	{ 505 506 507 508 }	57	1531
Felt, Dorr E., assignor to himself and G. W. Martin, Chicago, Ill. Device for recording the readings of gas-meters.....	450,664	Apr. 21	1587	381	55	326
Felt, Dorr E., and G. W. Martin, Chicago, Ill.; said Martin assignor of one-half to said Felt. Device for recording the readings of gas-meters.....	450,663	Apr. 21	1584	380	55	326
Felton, Charles E. (See Mack, Albert G., assignor.)						
Fender, William J., Minneapolis, Minn. Middlings-grader.....	465,924	Dec. 29	3060	785	57	1758
Fenley, Frank. (See Scott and Fenley.)						
Fenn, C. W. (See Stagg, John L., assignor.)						
Fennell, John A., Bradenville, Pa. Mechanical movement.....	455,248	June 30	3269	829	55	1800
Fennell, Timothy H., Summit Station, N. Y. Snow-plow.....	453,832	June 9	1016	265	55	1349
Fenner, Frederick W. (See Ramon, Peter J., assignor.)						
Fenner, George P. (See Maxson and Fenner.)						
Fenner, George P., New London, Conn. Printing-press.....	452,698	May 19	2025	507	55	974
Fenner, George P., New London, Conn. Printing-press.....	455,664	July 7	594	156	56	115
Fenner, Herbert N., <i>et al.</i> (See Keene, Samuel D., assignor.)						
Fenner, Hiram A., Flushing, Mich. Fence.....	455,940	July 14	1030	269	56	205
Fenner, Richard E., assignor to Columbian Novelty Company, Chicago, Ill. Watch-maker's truing-tool.....	459,928	Sept. 22	2201	553	56	1512
Fenton, Herschel, assignor to J. H. Buckbee, New York, N. Y. Banjo tail-piece.....	454,728	June 23	2353	604	55	1619
Fenton, John. (See Hurst and Fenton.)						
Fenton Metallic Manufacturing Company. (See Hine, James W., assignor.)						
Fenton Metallic Manufacturing Company. (See Hoffman, Horace J., assignor.)						
Fenton Metallic Manufacturing Company. (See Osborn and Foster, assignors.)						
Ferguson, George M. (See Sweet and Ferguson.)						
Fergus, James, Philadelphia, Pa. Vulcanizer.....	449,470	Mar. 31	3506	906	54	1834
Fergus, James, Philadelphia, Pa. Vulcanizer.....	462,120	Oct. 27	2556	635	57	511
Ferguson, Benjamin F., assignor of one-half to G. B. Hughes, McKinney, Tex. Wooden bridge.....	450,856	Oct. 6	493	126	57	98
Ferguson Brothers. (See Campbell, James W., assignor.)						
Ferguson, Byr n A., Wright, Mich., assignor of one-half to R. D. McNaughton. Baling-press.....	455,281	June 30	3341	844	55	1814
Ferguson, Daniel K., Simcoe, Canada. Brush.....	462,943	Nov. 10	1161	301	57	784
Ferguson, David H., Montreal, Canada. Machine for molding pulp.....	444,916	Jan. 20	1521	391	54	213
Ferguson, George C., Odell, Neb. Bee-hive.....	452,366	May 19	1497	371	55	874
Ferguson, James H., Brooklyn, N. Y. Hand-pump.....	458,676	Sept. 1	202	47	56	1104
Ferguson, James O., assignor of two-thirds to J. A. Rich, Greenwich, N. Y. Thill-coupling.....	466,059	Dec. 29	3309	845	57	1805
Ferguson, John A., Gates, Tenn. Fruit-gatherer.....	452,493	May 19	1705	429	55	912
Ferguson, John H. (See Baum, Henry C., assignor.)						
Ferguson, Robert G., Lakewood, N. J. Chuck for holding pipe-nipples.....	460,716	Oct. 6	298	73	57	59
Ferguson, Thomas, Albert Park, near Melbourne, assignor of one-half to E. Rowlands, Melbourne, Victoria. Machine for bottling aerated water.....	447,508	Mar. 3	400	98	54	1193

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Fernald, George W., Needham, Mass. Bicycle	464,324	Dec. 1	504	120	57	1230
Fernald, George W., Needham, assignor to Austin & Eddy, Boston, Mass. Dowel driver and setter	452,519	May 19	1747	{ 439 440 }	55	920
Fernald, James C. (See Fernald, Samuel and J. C.)						
Fernald, Samuel and J. C., Philadelphia, Pa. Car-coupling	461,670	Oct. 20	1836	454	57	365
Fernandez, Vicente, Guanajuato, Mexico. Fabric-turfing implement	456,805	July 28	2417	637	56	485
Féron, Arthur C., New York, N. Y. Combined table and folding bed	462,430	Nov. 3	343	84	57	616
Ferranti, Sebastian Z. de, Hampstead, England. Electro-motor engine	457,875	Aug. 18	1555	404	56	842
Ferrario, Giuseppe R., Altoona, Pa. Automatic filer	459,747	Sept. 22	1913	482	56	1457
Ferrell, Frank J., New York, N. Y. Valve	450,451	Apr. 14	1224	299	55	240
Ferrell, Frank J., New York, N. Y., assignor to Ferrell Manufacturing Company, of New Jersey. Valve	462,762	Nov. 10	857	225	57	725
Ferrell, James M., Freeport, Pa. Register for stamps sold and canceled, &c.	448,645	Mar. 24	2256	566	54	1572
Ferrell Manufacturing Company. (See Ferrell, Frank J., assignor.)						
Ferres, Jeffrey T., Anderson, Ind. Veneer-dish machine	456,483	July 21	1878	{ 496 497 }	56	375
Ferrier, Daniel A., Crete, Nebr. Pump-regulator for windmills	459,275	Sept. 8	1141	279	56	1295
Ferriotti, Charles L., Armour, Tex. Cotton chopper and cultivator	453,554	June 2	588	150	55	1259
Ferris, Henry L., Harvard, Ill. Hay-carrier track	460,959	Oct. 13	651	168	57	134
Ferris, Henry L., assignor to Hunt, Helm & Ferris, Harvard, Ill. Two-wheeled vehicle	457,912	Aug. 18	1618	422	56	853
Ferris, Sherwood B., Lakewood, N. J. Garment-supporter	449,113	Mar. 31	2984	753	54	1722
Ferris, Will H. (See Odell and Ferris.)						
Fertis, William M. (See Heidel, Gustavos, assignor.)						
Ferry, Caroline N. (See Ferry, Richard R., assignor.)						
Ferry, Charles H., et al. (See Collier, Charles, assignor.)						
Ferry, Dexter M. (See Morrow, George L. K., assignor.)						
Ferry, Frank P., assignor of one-half to F. E. Brady, Danbury, Conn. Hat-packing ring	444,343	Jan. 6	563	145	54	112
Ferry, James M. (See Cunningham and Ferry.)						
Ferry, Richard R., assignor to C. N. Ferry, New York, N. Y. Device for displaying hats	461,827	Oct. 27	2098	517	57	423
Ferst, Charles, Louisville, Ky. Barber's chair	445,014	Jan. 20	1670	429	54	349
Fessenden, Reginald A., Roseville, N. J. Leading-in wire for incandescent electric lamps	452,494	May 19	1707		55	912
Fessenden, Reginald A., Roseville, N. J. Manufacture of incandescent electric lamps	453,742	June 9	886	230	55	1324
Fessler, Henry. (See McKinney, Americus G., assignor.)						
Fetherman, Newton H., Bossardsville, Pa. Harness	448,832	Mar. 24	2547	639	54	1628
Fetherson, Joseph S., assignor of one-half to G. W. Sieber and M. Reilly, Akron, Ohio. Window-sash or door	456,322	July 21	1612	426	56	325
Fetzer, James J., Columbiana, assignor to Herbrand Company, Fremont, Ohio. Fifth-wheel	459,360	Sept. 8	1276	315	56	1322
Feus, Henry F. C., Savannah, Ga. Axle-gage	460,434	Sept. 29	2958	739	56	1664
Fey, Christian D., Chicago, Ill. Sliding-door hanger	463,700	Nov. 24	2376	621	57	1034
Fey, Johann, Itzehoe, Germany. Lock	451,709	May 5	404	98	55	656
Fezandí, Joseph H., New York, N. Y. Card-list	454,265	June 16	1622	426	55	1474
Ficher, J. A. (See Holland, Henry P., assignor.)						
Fichtner, Josef, assignor of one-half to L. R. Lorenz, Milwaukee, Wis. Game apparatus	459,929	Sept. 22	2202	553	56	1512
Fickermann, William, assignor to G. A. Meyer, Brooklyn, N. Y. Game or puzzle	462,211	Oct. 27	2698	679	57	538
Fidler, Charles H., assignor of one-half to A. E. Rood, Monroe, Wis. Gate	447,042	Feb. 24	2519	625	54	1027
Field, Benjamin F., Babylon, N. Y. Book-holder	445,885	Feb. 3	611	150	54	632
Field, Benjamin F., assignor to Field Patent Water Purifier Company, Chicago, Ill. Water-purifier and scale-arrester. (Reissue.)	11,143	Feb. 10	1500	370	54	810
Field, Charles H. and C. H., Jr., Providence, R. I. Engraving-machine	461,745	Oct. 20	1850	484	57	387
Field, Fred F., Brockton, Mass. Machine for hammering down the edges of insoles	463,447	Nov. 17	1952	509	57	946
Field, George B., New York, N. Y. Means for burning straw, cornstalks, &c	463,249	Nov. 17	1637	427	57	886
Field, Herbert W., Chicago, Ill., and H. A. Fowler, Northbridge, Mass. Adjustable stub-holder	444,429	Jan. 13	703	184	54	147
Field, J. E., et al. (See Dunn, John P., assignor.)						
Field, James D., Topeka, Kans. Flour bin and sifter	456,806	July 28	2418	638	56	486
Field Patent Water Purifier Company. (See Field, Benjamin F., assignor.) (Reissue.)						
Field, Stephen D., Stockbridge, Mass. Telephone	448,329	Mar. 17	1751	444	54	1470
Field, Stephen D., Stockbridge, Mass., assignor of one-half to P. H. Alexander, New York, N. Y. Cut-out	446,966	Feb. 24	2385	594	54	1003
Fielding, John, Gloucester, England. Gas-engine	450,406	Apr. 14	1162	283	55	228
Fietsch, Herman, Jr., assignor to D. W. Ryan, Chicago, Ill. Stereotype-plate holder	449,039	Mar. 24	2861	727	54	1690
Fife, John F., Medford, assignor to Wainwright Manufacturing Company of Massachusetts, Boston, Mass. Feed-water heater and condenser	446,913	Feb. 24	2307	{ 573 574 }	54	989
Fifield, Charles S., Revere, Mass. Skiing-machine	459,231	Sept. 8	1073	{ 261 262 }	56	1280
Fifield, Lizzie H., Manchester, N. H. Invalid's robe	459,106	Sept. 8	888	213	56	1246
Figert, John, New Philadelphia, Ohio. Fence	449,528	Mar. 31	3673	923	54	1849
Fike, D. M., et al. (See Edey, Charles E. C., assignor.)						
Filkins, Charles A., Amsterdam, N. Y. Apron	445,548	Feb. 3	31	8	54	517
Filstead, David W., St. Louis, Mo., assignor to American Writing Machine Company, Hartford, Conn. Type-writing machine	462,038	Oct. 27	2425	601	57	487
Filstrup, Larsen. (See Reid, Arthur B., assignor.)						
Filteau, Romnald. (See Boucher, Brault, and Filteau.)						
Filtz, Ernest, J., and G., Paris, France. Rotary motor	453,043	May 26	2581	{ 652 653 }	55	1090
Filtz, Georges. (See Filtz, Ernest, J., and G.)						
Filtz, Joseph. (See Filtz, Ernest, J., and G.)						
Finch, Ernest, Wellsville, Ohio. Chimney-top	462,246	Nov. 3	42	10	57	560
Finch, James. (See Molseed and Finch.)						
Finch, John M., Crockett, Cal., assignor to M. Harmon, Jackson, Mich. Conveyor	460,914	Oct. 6	589	149	57	115
Finch, John M., Crockett, Cal., assignor to M. Harmon, Jackson, Mich. Machine for bolting flour	460,915	Oct. 6	590	150	57	115
Finch, William R., Eureka, Cal. Breech-loading gun	452,699	May 19	2027	{ 507 508 }	55	974
Finch, Willis E., Denver, Colo. Railway-ticket	462,812	Nov. 10	943	245	57	743
Finck, Julius, San Francisco, Cal. Door opener and closer	460,820	Oct. 6	445	{ 112 113 }	57	89
Finck, Nicholas, Elizabeth, N. J. Can locking and unlocking mechanism	464,610	Dec. 8	920	{ 226 227 }	57	1321
Fine, Isaac. (See Heyl, Henry R., assignor.)						
Fine, William R., Willsville, assignor of one-half to W. H. Penland, Newport, Tenn. Car-coupling	448,949	Mar. 24	2725	688	54	1663
Finegan, Christopher P., Chicago, Ill. Plow	463,624	Nov. 24	2249	592	57	1012
Finrock, George, and G. Veesenmeyer, Chicago, Ill. Journal-oiler	461,426	Oct. 20	1385	350	57	282

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Finger, William F., Trenton, N. J. Heating attachment for lamp-chimneys	448,950	Mar. 24	2729	688	54	1664
Fink, Noah, Cheney, Kans. Corn-harvester	463,033	Nov. 10	1284	333	57	809
Fink, William M., Elizabeth, N. J. Dynamo or electric motor	460,125	Sept. 29	2498	622	56	1575
Finke, John J., Chicago, Ill. Detachable holder for rubber-faced type and type therefor	450,665	Apr. 21	1589	381	55	326
Finkelstein, Henry, assignor to G. W. Hoyt, Chicago, Ill. Garment-supporter	461,782	Oct. 20	2020	499	57	400
Finlay, Frank A. (See Sinclair and Finlay.)						
Finlay, James, Brooklyn, N. Y. Sash-cord fastener	461,746	Oct. 20	1954	485	57	388
Finlayson, Christopher T., Denver, Colo. Bucket-clip for wire-rope tramways	444,408	Jan. 6	668	174	54	132
Finlayson, Christopher T., Denver, Colo. Drawing-pen	450,227	Apr. 14	862	216	55	173
Finley, James D., Chicago, Ill. Flooring	462,480	Nov. 3	410	100	57	628
Finley, Norval H., assignor of seven-eighths to N. I. Shugert, J. W. Latshaw, and H. C. Fry, Rochester, Pa. Drying-oil and making the same	456,890	July 28	2560	-----	56	510
Finn, Hugh J., and J. A. Garner, Kansas City, Mo. Train-signal	449,672	Apr. 7	39	10	55	10
Finn, William H., and J. Pappa, Oswego, N. Y. Fire-armor	446,131	Feb. 10	1014	250	54	717
Finnerty, Michael F., assignor of one-half to G. Dittrich, Brooklyn, N. Y. Car-coupling	447,640	Mar. 3	598	147	54	1230
Finney, Hector, Brooklyn, N. Y. Furnace-doorway	462,402	Nov. 3	302	74	57	608
Finney, James B., <i>et al.</i> (See Harrison, Leonard S., assignor.)						
Finney, Winfield S., Medicine Lodge, Kans. Pad-machine	463,210	Nov. 17	1574	410	57	873
Finney, William D., <i>et al.</i> , executors. (See West, Larkin N.)						
Fire Extinguisher Manufacturing Company. (See Steck, Ernst F., assignor.)						
Firestone, Oscar F. (See Buckley and Firestone.)						
Firestone, Truman L., assignor to M. F. Smith, Cleveland, Ohio. Box-fastener	457,311	Aug. 4	615	162	56	647
Firth, Henry A. (See Masterson, Levi J., assignor.)						
Firth, Michael, and J. Robertshaw, Bradford, assignors to H. W., C., and J. H. Whitehead, Leeds, England. Combing-machine	466,227	Dec. 29	3561	912	57	1853
Fischbeck, Victor D. (See Baumele, John, assignor.)						
Fischedick, Frank H., and C. E. Koechling, New York, N. Y. Bromine compound	462,544	Nov. 3	509	-----	57	648
Fischel, Daniel C., Troy, N. Y. Artificial fuel	455,492	July 7	303	-----	56	61
Fischer, Frank X., Oakland, Cal. Water-tank	463,791	Nov. 24	2499	652	57	1058
Fischer, Frederick F., Pittsburg, Pa. Glass-polishing machine	449,816	Apr. 7	263	67, 68	55	52
Fischer, Harris M., <i>et al.</i> (See Lewin, Jacob, assignor.)						
Fischer, Hermann, Prairieville, Ill. Metallic fence-post	449,317	Mar. 31	3320	837	54	1782
Fischer, Jacob A. (See Grace, Henry S., assignor.)						
Fischer, Jacob A. (See Holland, Henry P., assignor.)						
Fischer, John G., East Saginaw, Mich. Electric-light fixture	452,367	May 19	1498	371	55	875
Fischer, Joseph, Cleveland, Ohio. Car-brake	452,368	May 19	1499	371	55	875
Fischer, Joseph, Cleveland, Ohio. Car-brake	459,836	Sept. 22	2050	515	56	1485
Fischer, Joseph and T., Vienna, Austria-Hungary. File-cutting machine	458,732	Sept. 1	280	68	56	1119
Fischer, Moses. (See Flory, Elie H., assignor.)						
Fischer, Oscar. (See Voll, Charles H., assignor.)						
Fischer, Siegfried M., Chicago, Ill. Watering device for stock-cars	453,804	June 9	983	256	55	1342
Fischer, Simon J., Quincy, Ill. Mixing-machine	463,892	Nov. 24	2668	695	57	1089
Fischer, Theodor. (See Fischer, Joseph and T.)						
Fischesser, Alfred, and J. Pokorny, Lutterbach, Germany; said Pokorny assignor to said Fischesser. Dyeing	457,488	Aug. 11	943	-----	56	715
Fish, Charles A., <i>et al.</i> (See Berne, Arthur W., assignor.)						
Fish, Charles H., Manchester, N. H. Sulphur-furnace	451,651	May 5	317	7	55	639
Fish, Edwin W., and C. C. Beebe, Racine, Wis.; said Fish assignor to said Beebe. Whistle-tree-hook	457,312	Aug. 4	616	162	56	647
Fish, Everett W., St. Paul, Minn. Addressing-machine	451,606	May 5	242	58	55	625
Fish, Farnum T. (See Jull, Samuel T., assignor.)						
Fish, Frederick P. (See Martin, Morris, assignor.)						
Fish, John, Summit, N. J. Bicycle-locomotive	444,822	Jan. 20	1322	342 } 343 }	54	275
Fish, John, Summit, N. J. Bicycle-car-truck	459,888	Sept. 22	2138	537	56	1502
Fish, Robert J., <i>et al.</i> (See Tanner, Jesse J., assignor.)						
Fish, Samuel J., Emporia, Kans. Cultivator shovel and knife	447,305	Mar. 3	31	8	54	1124
Fish, Wallace B., assignor to O. W. Bullock & Co., Springfield, Mass. Jeweler's work-clamp	456,891	July 28	2561	673	56	511
Fish, Wallace B., assignor to O. W. Bullock & Co., Springfield, Mass. Method of and machine for making printers' rules	458,531	Aug. 25	2621	638	56	1051
Fishback, Charles, St. Louis, Mo. Parlor coal-box	464,250	Dec. 1	387	92	57	1207
Fishel, Charles W., and F. E. Sweet, Carbondale, Colo. Paper bag	446,771	Feb. 17	2050	511	54	931
Fisher, Albert P. (See Gee, Edwin C., assignor.)						
Fisher, Alvan B., Rutland, Mass. Basket	451,321	Apr. 28	2622	646	55	532
Fisher, Alvan B., Rutland, Mass. Railway-tie	461,571	Oct. 20	1677	411	57	336
Fisher, Burnett H., New York, N. Y. Dynamo-regulator	449,245	Mar. 31	3181	803	54	1758
Fisher, Charles B., assignor of one-half to T. D. Davis, St. Louis, Mo. Gang-edger	461,747	Oct. 20	1955	485	57	388
Fisher, Clark, Trenton, N. J. Rail-joint	465,095	Dec. 29	3360	858	57	1815
Fisher, David A., Justice, Ohio. Perpetual calendar	463,678	Nov. 24	2332	612	57	1027
Fisher, David S., Valley City, Ind. Combined loader and press	456,484	July 21	1881	497 } 498 }	56	375
Fisher, David S., Valley City, assignor of one-half to J. L. Morris, Corydon, Ind. Corn-harvester	456,511	July 21	1923	508 } 509 }	56	383
Fisher, David W., Bettsville, Ohio. Fence	461,937	Oct. 27	2281	565	57	460
Fisher, Ebenezer. (See McBride and Fisher.)						
Fisher, Edgar L. (See Lamden, James T., assignor.)						
Fisher, Edmund G., assignor to Fisher Specialty Manufacturing Company, Minneapolis, Minn. Coin-controlled automatic photographic apparatus	444,487	Jan. 13	793	206 } 207 }	54	166
Fisher, Edmund G., Minneapolis, Minn., assignor to Fisher Specialty Manufacturing Company, of Minnesota. Vending apparatus	451,472	May 5	43	11	55	587
Fisher, Edmund G., and R. McFarlane, assignors to Fisher Specialty Manufacturing Company, Minneapolis, Minn. Automatic camera	444,488	Jan. 13	797	207 } 208 }	54	167
Fisher, Elliott D., Franklinville, N. Y. Stove-pipe-fitting tool	450,910	Apr. 21	1960	480	55	396
Fisher, Frederick W., Walton, Liverpool, England. Safety-valve	458,891	Sept. 1	542	132	56	1169
Fisher, George A., Leavenworth, Kans. Bake-oven	457,191	Aug. 4	399	104	56	608
Fisher, George A., assignor to Abendroth Brothers, New York, N. Y. Stove or range	459,276	Sept. 8	1143	279	56	1295
Fisher, George B., Chicago, Ill. Railway-rail fastening and support	452,863	May 26	2285	573	55	1032
Fisher, Guyon T., Lansing, Mich. Shoe-knife	452,999	May 26	2518	637	55	1077
Fisher, Hartzel. (See Murphy and Lennon, assignors.)						
Fisher, Henry W. (See Marsh and Fisher.)						
Fisher, Henry W., Pittsburg, Pa. Cut-out	465,983	Dec. 29	3166	812	57	1778
Fisher, Henry W., assignor to Standard Underground Cable Company, Pittsburg, Pa. Joint for electric conductors	464,475	Dec. 1	715	175	57	1271

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Fisher, Howard & Sons. (See Lowman and Howard, assignors.) (Reissue.)						
Fisher, Jacob, Elizabethtown, assignor to E. F. Bowman, Lancaster, Pa. Watch-makers' tool	458,546	Aug. 25	2641	643	56	1056
Fisher, Jacob, Elizabethtown, assignor to E. F. Bowman, Lancaster, Pa. Watch-maker's tool	461,148	Oct. 13	917	237	57	183
Fisher, James W., assignor of one-half to E. W. and E. A. Jones, Palouse, Wash. Gate	445,052	Jan. 20	1731	446	54	354
Fisher, John E., Boston, Mass. King-bolt	455,449	July 7	240	61	56	49
Fisher, John T., Cleveland, Ohio. Propulsion of vessels	464,621	Dec. 8	941	232	57	1325
Fisher, Joseph, Attleborough, Mass. Weather-strip	444,523	Jan. 13	854	222	54	178
Fisher, Melvin W., York, Pa. Ink-roller lifting device for cylinder printing-presses	451,372	Apr. 28	2688	667	55	545
Fisher, Miers, Denver, Colo. Type-writing machine	448,760	Mar. 24	2442	611	54	1608
Fisher, Peter G., <i>et al.</i> (See Devore, Morris H., assignor.)						
Fisher, Robert. (See Kay, Wilkinson, and Fisher.)						
Fisher, Robert C. (See Avis, Walter H., assignor.)						
Fisher, Samuel J., Chicago, Ill. Venetian blind	451,924	May 12	746	187	55	727
Fisher Specialty Manufacturing Company. (See Fisher, Edmund G., assignor.)						
Fisher Specialty Manufacturing Company. (See Fisher and McFarlane, assignors.)						
Fisher, Theodore M., and A. Slye, Mecca Mills, Ind. Car-coupling	445,503	Jan. 27	2409	628	54	495
Fisher, Thomas W., assignor of one-half to J. J. Leiser, Helena, Mont. Breast-collar	449,471	Mar. 31	3596	906	54	1834
Fisk, Cassius M., Napoleon, Ohio. Game apparatus	460,717	Oct. 6	299	73	57	59
Fisk, Earls J., Alpena, Mich. Wheel	462,247	Nov. 3	43	11	57	560
Fisk, Joseph M., assignor of one-half to W. G. Bridges, Greenfield, Ind. Car-coupling	448,014	Mar. 10	1231	313	54	1358
Fisk, Pliny H., New Richland, Minn. Printing-telegraph	450,228	Apr. 14	864	216 217 218	55	174
Fisk, Samuel T. (See Roemer and Kimball, assignors.)						
Fisk, Wallace, Morganville, N. Y. Hand-planter	458,449	Aug. 25	2487	605	56	1025
Fiske, Austin S., St. Paul, Minn. Book-mark	446,857	Feb. 24	2199	547	54	970
Fiske, Bradley A., U. S. Navy. Electrical range-finder	444,217	Jan. 6	385	96	54	77
Fiske, Coleman & Co. (See Cooper, Leslie A., assignor.)						
Fitch, Fred. W. (See Parsons, Byron J., assignor.)						
Fitch, George, Sharpsburg, Pa. Mast-arm for electric lights	445,549	Feb. 3	32	8	54	517
Fiske, Henry G., assignor to J. D. Cheever, New York, N. Y. Magnetic separator	455,984	July 14	1096	288 289	56	217
Fiske, Henry G., assignor to J. D. Cheever, New York, N. Y. Magnetic ore-separator	455,985	July 14	1099	289	56	217
Fiske, Henry G., assignor to J. D. Cheever, New York, N. Y. Magnetic separator	456,507	July 21	1916	507	56	382
Fiske, Homer W., New York, N. Y. Amalgamating apparatus	460,305	Sept. 29	2772	691	56	1629
Fiske, Samuel, New York, N. Y. Furnace-grate	466,050	Dec. 29	3295	841	57	1803
Fitch, Asa M., Seymour, Ind. Plow	464,015	Dec. 1	19	6	57	1140
Fitch, Benjamin F., La Crosse, Wis. Cut-off valve and gear	453,173	May 26	2830	709 710 711 712 713	55	1134
Fitch, Calvin M., Chicago, Ill. Ore-concentrating machinery	450,063	Apr. 7	608	153	55	118
Fitch, Calvin M., Chicago, Ill. Ore concentrating and separating apparatus	453,928	June 9	1139	298	55	1373
Fitch, Charles L., Grand Rapids, Mich. Knob attachment	456,807	July 28	2420	638	56	486
Fitch, Francis E., Elmira, N. Y. Steam boiler and generating appliance	459,520	Sept. 15	1539	384	56	1379
Fitch, Francis E. (See Eno, Joseph A., assignor.)						
Fitch, Henry, Lawrenceburg, Ind., assignor to I. K. Funk and A. W. Wagnalls, New York, N. Y. Calendar	458,970	Sept. 1	656	160	56	1193
Fitch, Thomas W., Edgewoodville, Pa. Rod-mill	444,049	Jan. 6	102	26	54	23
Fitch, W. & E. T. (See Hubbard, George M., assignor.)						
Fitch, William L., assignor of one-half to A. Metz, Chicago, Ill. Automatic pump-regulator	457,987	Aug. 18	1748	459	56	878
Fidler, Harry G., and W. H. Armstrong, assignors of two-fifths to J. H. F. Dixon, Philadelphia, Pa. Nut-lock	447,509	Mar. 3	403	99	54	1194
Fitzton, T. H., <i>et al.</i> (See Dunn, John P., assignor.)						
Fitz, John, <i>et al.</i> (See Fitz and Rehffuss, assignors.)						
Fitz, John, G. J. G., and M. O. Rehffuss, assignors to E. Morris and J. Fitz, Philadelphia, Pa. Machine for trimming the curled edges of hat-brims	454,565	June 23	2085	538	55	1569
Fitzberger, John, Baltimore, Md. Skylight	463,963	Nov. 24	2775	720	57	1111
Fitzgerald, Charles, assignor of one-half to J. E. Rugg, Pittsburg, Pa. Removable shoe for cable-car grips	464,924	Dec. 8	1397	352	57	1411
Fitzgerald, Charles H., Newport, Ky., assignor of one-third to A. H. Wagner, Cincinnati, Ohio. Wash-boiler	450,064	Apr. 7	612	154	55	119
Fitzgerald, Edmund M., St. Louis, Mo. Locomotive ash-pan	446,608	Feb. 17	1795	444	54	881
Fitzgerald, James D., Selma, Ala. Lubricator	458,450	Aug. 25	2489	605	56	1025
Fitzgerald, James H., Langford, S. D., assignor of one-fourth to J. Barron, Minneapolis, Minn. Blank book for type-writers	446,095	Feb. 10	954	234	54	704
Fitzgerald, John F., Trenton, Tenn. Feed-rack	444,577	Jan. 13	944	245	54	195
Fitzpatrick, James, Brooklyn, and J. Ring, New York; said Ring assignor to R. R. Tietenberg, Brooklyn, and J. Cassidy, New Utrecht, N. Y. Binder for papers, &c.	460,090	Sept. 22	2436	609	56	1557
Fitzsimmons, Andrew M. R. (See Rice, David, assignor.)						
Fitzsimmons, Philip, assignor of one-half to P. H. Linnehan, Birmingham, Ala. Telephone-transmitter	452,636	May 19	1934	485	55	956
Fitzsimmons, Philip, assignor of one-half to F. Hardy, Birmingham, Ala. Telephone-transmitter	453,581	June 2	628	160	55	1266
Fizell, Samuel R., and G. L. Peck, Waltham, Minn. Draft-equalizer	462,308	Nov. 3	148	37	57	578
Flack, William R., Tiffin, Ohio. Display-rack	453,969	June 9	1193	311	55	1384
Flagg, Edwin C., administrator. (See Jewell, Ammi M.)						
Flagg, Eli W., assignor to Nichols & Shepard Company, Battle Creek, Mich. Thrashing-machine	454,466	June 23	1936	505	55	1541
Flagg, Ellis C., assignor to Scribner Libbey Company, St. Paul, Minn. Dash-pot	463,382	Nov. 17	1855	485	57	926
Flagg, Ellis C., assignor to Scribner Libbey Company, St. Paul, Minn. Releasing valve-gear	463,383	Nov. 17	1856	485	57	927
Flagg, Fred H., Worcester, Mass. Shoe	463,734	Nov. 24	2424	635	57	1044
Flagg, George C., Lewistown, Ill. Grain-scale	448,761	Mar. 24	2446	611	54	1609
Flagg, George C. P. (See La Bonté, Adolphus, assignor.)						
Flagg, George H. P. (See Rooney, Henry F., assignor.)						
Flagg, George H. P. (See Webster, Harold A., assignor.)						
Flagg, George H. P., <i>et al.</i> (See Stiles, George A., assignor.)						
Flagg, Howard W., Yonkers, N. Y. Felting fur bodies	444,209	Jan. 6	373	-----	54	75
Flagg, Howard W., Yonkers, N. Y. Felting fur bodies. (Reissue.)	11,213	Dec. 22	2898	-----	57	1718
Flagg, Isaac J., Clinton, Mass. Incandescent electric lamp	452,780	May 26	2158	540	55	1008
Flagg, Isaac J., Clinton, Mass. Coupling for electric incandescent lamps	457,151	Aug. 4	333	85	56	597

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Flagler, Harvey K. (See Abbott, Warren M., assignor.)						
Flagler, Joh H. New York, N. Y., assignor to National Tube Works Company, Boston, Mass. Vehicle-axle	444,065	Jan. 6	136	34	54	30
Flaherty, Daniel A., Owosso, Mich. Car-roof	452,838	May 26	2246	564	55	1025
Flaig, Joseph. (See Krein and Flaig.)						
Flam, William, Denver, Colo. Sofa-bed	457,580	Aug. 11	1077	276	56	743
Flanagan, James H. (See La Foint, Flanagan, and Thompson.)						
Flanagan, William W., et al. (See Morrell, Robert, assignor.)						
Flanagin, W. J., et al. (See Jones, Charles E., Sr., assignor.)						
Flanders, Bradford W., Coventry, Vt. Fire-escape and elevator	453,044	May 26	2584	653	55	1090
Flanders, Johnson B., and J. M. Smith, Toledo, Ohio. Door-hanger	444,725	Jan. 13	1159	298	54	236
Flanders, Martin V. B. (See Fox, John H., assignor.)						
Flanders, William G., New York, N. Y. Water-heater for domestic or other purposes	461,867	Oct. 27	2158	532	57	436
Flanegin, Francis A., assignor of one-half to D. C. Reinohl, Washington, D. C. Drill-jar	446,622	Feb. 17	1819	450	54	885
Flanigan, Timothy, Chicago, Ill. Dumping-cart	446,096	Feb. 10	955	235	54	705
Flatau, Louis S., Pittsburg, Tex. Wire-tightener. (Reissue.)	11,201	Nov. 3	731	189	57	692
Flatau, Louis S., Pittsburg, assignor of one-half to H. C. Walker, Tarrant County, Tex. Whiffletree. (Reissue.)	11,157	Apr. 21	2127	524	55	427
Flatau, Louis S., Fort Worth, Tex., assignor to B. F. Avery & Sons, Louisville, Ky. Wire-looping tool	460,916	Oct. 6	592	150	57	115
Flatau, Louis S., Pittsburg, Tex., assignor to B. F. Avery & Sons, Louisville, Ky. Seed-planter	464,741	Dec. 8	1141	283	57	1361
Flather, Joseph, Nashua, N. H. Feed mechanism for lathes	462,481	Nov. 3	412	100	57	629
Flavell, Denis A., New York, N. Y. Machine for staying the angles of paper boxes	465,845	Dec. 29	2932	750 751	57	1723
Fleck Söhne, C. L. P. (See Schrader, Wolfgang, assignor.)						
Flehart, William F., assignor of one-half to J. F. Laning, Norwalk, Ohio. Toy parachute	450,565	Apr. 14	1378	340	55	272
Fleischman, Milton P. (See Harders and Fleischman.)						
Fleischmann & Co. (See Sobotka, Gustav, assignor.)						
Fleischmann, Lewis, Des Moines, Iowa. Carpet stretcher and fastener	458,682	Sept. 1	213	50	56	1106
Fleming, Andrew, Erie, Pa. Toy money-box	466,032	Dec. 29	3266	833	57	1796
Fleming, Cannon H., et al. (See McCabe, Edward T., assignor.)						
Fleming, Cochran, Jr., assignor to J. P. Fleming, Sewickley, Pa. Gate or door fastening	462,909	Nov. 10	1101	286 287	57	775
Fleming, James H., Newark, N. J. Watch-case spring	450,566	Apr. 14	1379	340	55	272
Fleming, James H., Newark, N. J. Electric connection	461,868	Oct. 27	2160	532	57	436
Fleming, James H., Newark, N. J. Watch-case spring	465,593	Dec. 22	2549	650	57	1648
Fleming, John S., et al. (See Okey, William C., assignor.)						
Fleming, Julia P. (See Fleming, Cochran, Jr., assignor.)						
Fleming Manufacturing Company. (See Houser, John A., assignor.)						
Fleming, Samuel S., Sarversville, Pa. Steam-generator	445,760	Feb. 3	403	102	54	592
Fleuder, William H. (See Davidson and Fleuder.)						
Flentye, Harry L., Oak Glen, Ill. Machine for washing milk-cans	462,839	Nov. 10	988	256	57	751
Flesher, William H. (See Walter, George P., assignor.)						
Fletcher, Addison C., New York, N. Y. Stamp or label	444,344	Jan. 6	564	145	54	112
Fletcher, Addison C., New York, N. Y. Spring-back book	446,858	Feb. 24	2200	547	54	970
Fletcher, Charles. (See Peckham, Luther A., assignor.)						
Fletcher, Edgar A. (See Fry, John H., assignor.)						
Fletcher, Edwin J., New York, N. Y. Means for joining wood	446,914	Feb. 24	2308	574	54	989
Fletcher, Elisha H. (See Casselman and Fletcher.)						
Fletcher, Elmer, Needham, Mass., assignor to Eyelet Button Hole Attachment Company, Portland, Me. Button-hole attachment for sewing-machines	446,736	Feb. 17	2001	499	54	921
Fletcher, Frank A. (See Latimer and Fletcher.)						
Fletcher, Frank F., Washington, D. C. Mounting for rapid-fire guns	457,641	Aug. 11	1166	298 299	56	759
Fletcher, Henry C., Pasadena, Cal. Valve-controlling mechanism for gas-engines	456,256	July 21	1512	401	56	306
Fletcher, J. W. (See Crow, James H., assignor.)						
Fletcher, James. (See Soothill, John, assignor.)						
Fletcher, James S., Rogers Park, Ill. Die-stock and die	446,915	Feb. 24	2311	574	54	989
Fletcher, John R., Chicago, Ill. Means for connecting trolley and feed wires	454,903	June 30	2656	680	55	1681
Fletcher, John R., Dayton, Ohio. Aerial cut-out	454,904	June 30	2657	680	55	1681
Fletcher, John R., Dayton, Ohio, assignor to Electrical Supply Company, Chicago, Ill. Pole for electric lines, &c.	451,730	May 5	438	106	55	662
Fletcher, Moore R., Boston, Mass. Truss	454,339	June 16	1731	451	55	1495
Fletcher, Tom W., Ilkeston, England. Traverse-warp fabric for making gloves and for other uses	461,015	Oct. 13	735	189 190	57	150
Fletter, Henry, Kalamazoo, Mich., assignor to Lamson Consolidated Store Service Company, of New Jersey. Cash-carrier	452,475	May 19	1685	424	55	908
Fleury, Herbert W., et al. (See Thom and Bailey, assignors.)						
Flewelling, William W., Kingsbury, Cal. Hub and axle	463,272	Nov. 17	1676	438	57	893
Flick, Otis C., Brooklyn, assignor to Wellington Manufacturing Company, New York, N. Y. Electrode for secondary batteries	456,558	July 28	2005	529	56	407
Flickinger, Joseph H., and L. F. Graham, San José, Cal. Fruit slicer or cutter	453,859	June 9	1045	273	55	1355
Flinsch Machine Building Co., Ferdinand. (See Winterweber, Heinrich, assignor.)						
Flint, William W., assignor to Chicago Stamping Company, Chicago, Ill. Metallic vessel	458,361	Aug. 25	2347	573	56	1000
Flodin, Helena O., Upsala, Sweden. Nursing-bottle	460,857	Oct. 6	494	126	57	98
Flodin, Lawrence T., assignor to A. Naidl, Omaha, Nebr. Truss	463,717	Nov. 24	2402	630	57	1039
Flohr, Otto, assignor to C. A. Pooley, Buffalo, N. Y. Car-coupling	445,242	Jan. 27	2029	523	54	420
Flohr, Otto, assignor to C. A. Pooley, Buffalo, N. Y. Car-coupling	445,243	Jan. 27	2031	523	54	421
Flohr, Otto, assignor to C. A. Pooley, Buffalo, N. Y. Car-coupling	445,244	Jan. 27	2034	523	54	421
Flohr, Otto, assignor to C. A. Pooley, Buffalo, N. Y. Car-coupling	445,245	Jan. 27	2035	523 524	54	421
Flohr, Otto, assignor to C. A. Pooley, Buffalo, N. Y. Car-coupling	445,246	Jan. 27	2038	524	54	421
Flohr, Otto, assignor to C. A. Pooley, Buffalo, N. Y. Friction-clutch	445,247	Jan. 27	2039	524	54	422
Flohr, Otto, assignor to C. A. Pooley, Buffalo, N. Y. Car-coupling	445,248	Jan. 27	2041	525	54	422
Flood, John B., et al. (See House, John, assignor.)						
Flood, John F. (See Semple, Harry, assignor.)						
Flood, Patrick, Albany, N. Y. Car-starter	456,762	July 28	2357	620 621	56	474
Florence Machine Company. (See Gould, Charles E., assignor.)						
Florian, Edward A. (See Florian, Herman A., assignor.)						
Florian, Herman A., Detroit, Mich., assignor to E. A. Florian, Fostoria, Ohio. Electric motor	464,299	Dec. 1	473	113	57	1224
Flöring, Wilhelm C., and D. Eisele, New York, N. Y. Paper-hanging machine	458,259	Aug. 25	2168	531	56	966

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Florsheim, Simon, <i>et al.</i> (See Gardner, Marshall, assignor.)						
Flory, Elie H., assignor of one-half to M. Fischer, Abbeville, La. Crate.....	446,165	Feb. 10	1086	267	54	727
Flory, Samuel. (See Werner and Flory.)						
Flos, Charles F., Brooklyn, N. Y. Frame for holding and stretching fabrics.....	451,814	May 5	562	139	55	686
Flos Shade Roller Company. (See Conklin, George W., assignor.)						
Flottmann, Friedrich H., Bochum, Germany. Vacuum-pan.....	447,673	Mar. 3	636	158	54	1238
Flower, Collingwood, Glasgow, Scotland. Garment-presser.....	462,039	Oct. 27	2427	601	57	487
Flower, Walter L. (See Campbell and Flower.)						
Flowers, Malon I., Springfield, Mo., assignor of two-thirds to J. E. Jones and C. W. Price, Oklahoma City, Oklahoma Ter. Electric time-lock.....	446,967	Feb. 24	2387	594	54	1003
Flowers, Philip, assignor of one-half to H. Gieselmann, St. Louis, Mo. Chair.....	463,600	Nov. 17	2201	{ 580 581 }	{ 57 57 }	994
Floyd & Foster. (See Halfpenny, Martin, assignor.)						
Floyd, Richard M., Shelbyville, Ind. Label-case.....	457,581	Aug. 11	1079	276	56	743
Floyd & Sons, James R. (See Mooney, William, assignor.)						
Flynn, Richard F., assignor of one-half to J. G. Lornie, Kirkcaldy, Scotland. Floor-covering	460,249	Sept. 29	2674	.....	56	1611
Flynn, William, assignor of one-half to J. D. Nooney, Sioux City, Iowa, and J. Nooney, Necedah, Wis. Ponton-bridge.....	464,962	Dec. 15	1473	371	57	1437
Foans, Andrew B., New York, N. Y. Reversible hose nozzle and coupling.....	450,452	Apr. 14	1226	300	55	240
Foard-Harris, Henry. (See Davies, Edward, assignor.)						
Focht, George, Jr., Hoboken, N. J. Street-sweeper.....	464,353	Dec. 1	548	134	57	1238
Foehl, Charles. (See Weeks and Foehl.)						
Foehl, Charles, and C. A. Weeks, assignors to Foehl & Weeks Fire Arms Manufacturing Company, Philadelphia, Pa. Base-pin and cylinder-brake for revolvers.....	444,823	Jan. 20	1323	343	54	276
Foehl & Weeks Fire Arms Manufacturing Company. (See Foehl and Weeks, assignors.)						
Foelsing, August, Dusseldorf, Germany. Purifying tannin solutions by electrolysis.....	462,694	Nov. 10	755	.....	57	705
Foerster, Emanuel, New York, N. Y. Stone-cutting saw.....	462,482	Nov. 3	414	101	57	629
Fogarty, James H., New York, N. Y. Steam-trap.....	450,453	Apr. 14	1226	300	55	240
Fogarty, Michael H., Amsterdam, N. Y. Drying-board.....	448,951	Mar. 24	2730	689	54	1664
Fogel, Alexander. (See Lonergan and Fogel.)						
Fogel, Alexander, Philadelphia, Pa. Pop safety-valve.....	461,149	Oct. 13	918	238	57	184
Fogeli, Amalea, Nevada City, Cal. Fruit-picker.....	452,102	May 12	1063	269	55	783
Folkemer, Philip. (See Webb, George L., assignor.)						
Foley, Cornealus E. (See Lankford, James M., assignor.)						
Foley, Emma, New York, N. Y. Corset.....	458,309	Aug. 25	2264	553	56	983
Foley, James S., London, England. Printing device.....	448,219	Mar. 17	1547	{ 395 396 422 }	{ 54 54 57 }	1431
Foley, James S., London, England. Ever-pointed pencil.....	465,057	Dec. 15	1657	422	57	1470
Foley, Michael T. (See Gormley, John W., assignor.)						
Folger, Charles H., Cincinnati, Ohio. Fare-registering punch.....	465,256	Dec. 15	1989	{ 508 509 }	{ 57 57 }	1532
Folger, Henry C., and G. K. Dearborn, assignors, by mesne assignments, to Boston Sanitary Specialty Company, Somerville, Mass. Valve-controlling mechanism for water-closet tanks.....	453,997	June 9	1238	322	55	1393
Folger, William B., Cincinnati, Ohio. Permutation-lock.....	444,210	Jan. 6	373	93	54	75
Foliedesjardins, Louis M. C., Toulouse, France. Apparatus for the manufacture of phosphorus and alkaline silicates.....	460,004	Sept. 22	2299	577	56	1531
Follenius, Reinhold H., St. Louis, Mo. Name-plate for monuments, &c.....	463,500	Nov. 17	2025	531	57	960
Follett, Hiram, assignor of one-half to H. Rühl, Baltimore, Md. Ship's rigging.....	449,472	Mar. 31	3598	906	54	1834
Follmer, William L. (See Keagle and Follmer.)						
Folly, Cornelius A., New York, N. Y. Screw-coupling.....	453,555	June 2	589	150	55	1259
Folmer & Schwing Manufacturing Company. (See Folmer, William F., assignor.)						
Folmer, William F., and W. E. Schwing, Louisville, Ky. Toy pistol.....	451,554	May 5	165	40	55	611
Folmer, William F., assignor to Folmer & Schwing Manufacturing Company, New York, N. Y. Pocket-lamp.....	454,642	June 23	2228	574	55	1593
Folmer, William F., Independence, Ky., assignor to Folmer & Schwing Manufacturing Company, of New Jersey. Pocket-lamp.....	456,359	July 21	1672	441	56	336
Fölsche, Rudolf, Halle, Germany. Centrifugal machine.....	461,671	Oct. 20	1837	454	57	365
Fonda, Frank L., R. C. Roach, and W. H. Underwood, Hutchinson, Kans. Ice-machine.....	464,862	Dec. 8	1311	{ 328 329 }	{ 57 57 }	1395
Fones, Alfred C., Bridgeport, Conn. Artificial tooth.....	455,450	July 7	241	62	56	49
Fonger, William, Chicago, Ill. Reel for harvesters.....	452,369	May 19	1500	{ 371 372 }	{ 55 55 }	875
Fontaine, Patrick H., Elmo, Va. Machine for distributing fertilizer and for planting seed.	457,612	Aug. 11	1129	288	56	752
Fontaine, Patrick H., Elmo, assignor of one-fourth to W. W. Waddill, Danville, Va. Track-layer's thermal gage.....	450,065	Apr. 7	613	154	55	119
Fontayne, Albert, Sr., Chicago, Ill. Car-coupling.....	456,987	Aug. 4	96	23	56	551
Fooks, Henry S. S., Brighton, England. Traveling inkstand.....	450,066	Apr. 7	614	155	55	119
Foos Manufacturing Company <i>et al.</i> (See Winchell, James F., assignor.)						
Foose, George C., assignor of one-half to S. E. Salisbury and S. W. Lamberson, Warsaw, N. Y. Fire-escape.....	459,493	Sept. 15	1495	375	56	1372
Foot, Francis S., <i>et al.</i> (See Ham, John, assignor.)						
Foot, George L., Brooklyn, N. Y., and W. C. Moore, Kansas City, Mo., assignors to Electric Secret Service Company, New York, N. Y. Electric signal-receiving instrument.....	454,643	June 23	2231	574	55	1593
Foot, James H. (See Meitzler, George R., assignor.)						
Foot, James H. (See Meitzler and Foot.)						
Foot, James H., Cincinnati, Ohio. Combined cigar-tip cutter and match-safe.....	462,350	Nov. 3	214	51	57	592
Foot, John B., Hamilton, Ohio. Can-soldering machine.....	465,018	Dec. 15	1589	405	57	1458
Foot, John H., and C. W. Ruby, Brooklyn, N. Y.; said Ruby assignor to said Foot. Musical instrument.....	463,034	Nov. 10	1285	333	57	809
Foot, Lewis A., Austin, Minn., assignor to Buckeye Car Seal and Manufacturing Company, Cleveland, Ohio. Car-seal.....	464,174	Dec. 1	251	61	57	1183
Foot, Theodore M., Boston, Mass. Speed-regulator.....	453,591	June 2	645	166	55	1270
Foot, Warren, <i>et al.</i> (See Ham, John, assignor.)						
Foot, William A., Battle Creek, Mich. Belt-controller for dynamos.....	454,467	June 23	1938	505	55	1542
Forbes, Emma L. (See Clark, Dwight S., assignor.)						
Forbes, Emma L. (See Clark and Osborne, assignors.)						
Forbes, Richard T., Las Vegas, N. Mex. Ter. Gun-sling attachment.....	450,785	Apr. 21	1760	427	55	358
Forbes, William, Plainwell, Mich. Stove.....	455,613	July 7	510	132	56	98
Forbes, William A. (See Kellogg, William H., assignor.)						
Forbes, William H. (See Clark, Dwight S., assignor.)						
Forbis, William R., Greensborough, N. C. Cabinet-bedstead.....	462,695	Nov. 10	756	197	57	705
Force, Herman, Lodi, N. J. Apparatus for winding and stretching fabrics.....	461,954	Oct. 27	2306	{ 571 572 }	{ 57 57 }	464

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Ford, Albert J., assignor to J. H. Vivian, Chicago, Ill. Adjustable holder for inking-rollers of printing-presses	457,152	Aug. 4	335	86	56	598
Ford, Benjamin, Green Tree, Pa. Boiler for generating steam	449,735	Apr. 7	142	35	55	29
Ford, Charles S., Sr., assignor to G. W. Brelsford, Eden, Pa. Gas-burner	463,969	Nov. 24	2791	723	57	1114
Ford, Edward C., and G. T. Jacobs, Washington, D. C. Roll-paper holder and cutter	448,138	Mar. 10	1402	358	54	1394
Ford, Ellsworth, New Haven, Conn. Auger-bit	461,897	Oct. 27	2204	544	57	445
Ford, Eugene A., New York, N. Y. Type-writing machine	456,808	July 28	2421	{ 638 639 }	{ 56 }	486
Ford, Frederick A. (See Meyer and Huppmann-Gerard, assignors.)						
Ford, Frederick D., assignor of two-fifths to J. Morton and J. B. Bever, Cedar Rapids, Iowa. Mail-pouch	455,393	July 7	152	39	56	33
Ford, George R., Grand Rapids, Mich. Boiler-fine scraper	458,892	Sept. 1	543	132	56	1169
Ford, Harry W., Adams, Mass. Combination-vehicle	460,373	Sept. 29	2879	719	56	1649
Ford, James T., New York, N. Y. Bottle and stopper therefor	453,731	June 9	870	236	55	1320
Ford, James T., New York, N. Y. Bottle-neck	453,970	June 9	1194	311	55	1384
Ford, Jeremiah, Quincy, Mass. Key-fastener	450,407	Apr. 14	1164	284	55	229
Ford, John C. Beverly, Mo., assignor to W. Rees & Co., Keokuk, Iowa. Machine for splitting and rewinding roll-paper	466,228	Dec. 29	3562	{ 912 913 }	{ 57 }	1854
Ford, Leon E. and A. J. Whitworth, McComb, Miss. Car-coupling	466,015	Dec. 29	3235	825	57	1790
Ford, Martin W., Jr., assignor of one-half to F. S. Bean, Manchester, N. H. Wheel-hub	449,264	Mar. 31	3215	811	54	1765
Ford, Robert P., assignor of one-third to W. Meinhardt, Ashland, Ky. Paint-bucket	459,329	Sept. 8	1226	300	56	1312
Ford & Washburn. (See Washburn, George A., assignor.)						
Ford, William H., St. Louis, Mo. Conduit system for electric railways	451,815	May 5	564	{ 139 140 }	{ 55 }	687
Ford, Wilson L. (See Almstead and Ford.)						
Forden, W. B. (See Stickney, Henry C., assignor.)						
Forehand, Sullivan. (See Caldwell, Homer M., assignor.)						
Foresman, John B., Foresman, Ind. Hay-press	445,986	Feb. 10	782	{ 190 191 }	{ 54 }	675
Forg, Peter, Somerville, Mass. Spring-catch	451,473	May 5	45	11	55	587
Forg, Peter, Somerville, Mass. Corner flush-bolt	451,474	May 5	45	11	55	588
Forgason, Henry C., assignor of one-half to H. G. Comstock, Oakland, Cal. Electric-arc lamp	447,767	Mar. 10	800	199	54	1277
Forke, William H., Meadville, Pa. Riding-saddle	447,723	Mar. 3	714	179	54	1253
Fornan, James H., Woodstock, Ill. Potato-planting attachment	464,263	Dec. 1	414	98	57	1212
Fornander, Per J. A., Brooklyn, N. Y. Take-up for braiding machines	447,107	Feb. 24	2616	649	54	1047
Fornander, Per J. A., Brooklyn, N. Y. Carrier for braiding-machines	447,108	Feb. 24	2618	650	54	1048
Forncrook, Charles C., Hormitage, N. Y. Whiffletree	457,046	Aug. 4	169	42	56	566
Forrest, Hamlet E., assignor to Watson & Stillman, New York, N. Y. Packing for stuffing-boxes	445,693	Feb. 3	293	77	54	570
Forrest, William R. (See Bryant, Cushing M., assignor.)						
Forrester, Isaac N., Camden, N. J. Cloth-napping machine	458,725	Sept. 1	272	64, 65	56	1117
Forrester, Philip M., Sunbury, Pa. Can for refrigerating and transporting milk	446,254	Feb. 10	1248	305	54	759
Forrey, George J., Carlisle, Pa. Screw-cutting machine	459,277	Sept. 8	1144	{ 279 280 }	{ 56 }	1295
Forsberg, Charles A., assignor to Rockford Machine Company, Rockford, Ill. Hinge	459,702	Sept. 15	1399	463	56	1437
Forshaw, Joseph, St. Louis, Mo. Match-box and holding-frame therefor	446,336	Feb. 10	1378	336	54	785
Forslund, Hugo W., assignor to Standard Elevator Company and W. H. Wells, Jr., Chicago, Ill. Hydraulic valve	463,211	Nov. 17	1575	410	57	873
Forslund, Hugo W., and W. H. Wells, Jr., assignors to Standard Elevator Company, Chicago, Ill. Automatic stop-valve	461,427	Oct. 20	1386	{ 350 351 }	{ 57 }	282
Forsyth, Henry H. and H. H., Jr., Chicago, Ill. Apparatus for cutting screw-threads	452,839	May 26	2248	564	55	1026
Forsyth, Hezekiah, Detroit, Mich. Folding chair	451,475	May 5	46	12	55	588
Forsyth, James B. (See Nelson, Anthony, assignor.)						
Forsyth, Robert C., Chicago, Ill. Truck for suspended cars	449,318	Mar. 31	3322	{ 837 838 }	{ 54 }	1782
Fort, Laurens A., Raleigh, N. C. Sash-holder	458,158	Aug. 25	2003	518	56	935
Fort, Louis N. (See Wicks, George, assignor.)						
Fort Wayne Electric Company. (See Wood, James J., assignor.)						
Fort Wayne Electric Light Company. (See Bradley, Charles S., assignor.)						
Fort Wayne Electric Light Company. (See Slattery, Marmaduke M. M., assignor.)						
Forter, Samuel, Allegheny, Pa. Valve for regenerative stoves or furnaces	464,195	Dec. 1	292	71, 72	57	1190
Fortier, Charles L., Milwaukee, Wis. Velocipede	451,035	Apr. 28	2162	534	55	443
Fortier, Charles L., assignor to G. Knowles, Jr., Milwaukee, Wis. Automatic valve for fire-extinguishers	464,264	Dec. 1	415	99	57	1213
Fortier, Francis J. (See Dupuy and Fortier.)						
Fortiner, Benjamin F., Camden, N. J., assignor to Hale & Kilburn Manufacturing Company, Philadelphia, Pa. Folding bed	455,193	June 30	3190	809	55	1785
Fortuno, Mannel, Mexico, Mexico. Ticket-case and fare-register	457,264	Aug. 4	532	139	56	631
Forward, Ross, Cincinnati, Ohio. Car-coupling	448,515	Mar. 17	2031	508	54	1523
Forwood, Reginald, New York, N. Y. Spirit-level	456,086	July 14	1239	325	56	244
Fosburgh, Robert L., and J. F. Milligan, St. Louis, Mo. Nut-wrench	455,484	July 7	292	74	56	59
Fosgate, Charles O. (See Braddock, Warren L., assignor.)						
Foss, Edgar B., et al. (See Church, Dwight M., assignor.)						
Foss, John F., Lowell, Mass. Card-flat	462,121	Oct. 27	2557	635	57	512
Foss, Milton C. (See Gillis, Bosanquet W., assignor.)						
Foss, Paul, Chicago, Ill. Brick-machine	459,153	Sept. 8	958	{ 232 233 }	{ 56 }	1259
Foss, Webster F. (See Hill and Foss.)						
Foster, Benjamin C., assignor to N. Campbell, New York, N. Y. Flexible tire for wheels	458,547	Aug. 25	2642	643	56	1056
Foster, Benjamin R., St. Louis, Mo. Measuring device for powdered materials	464,823	Dec. 8	1261	315	57	1384
Foster Brothers & Company. (See Frank, William E., assignor.)						
Foster, Charles, et al. (See Honze, Luke, assignor.)						
Foster, Charles, and W. H. Bevis, Cincinnati, Ohio. Electric-conductor support	445,594	Feb. 3	117	30	54	534
Foster, Charles E. (See Osborn and Foster.)						
Foster, Charles E., Washington, D. C., assignor to Hydraulic Elevator Company, Chicago, Ill. Elevator	452,370	May 19	1501	372	55	875
Foster, Charles E., Washington, D. C., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Store-service apparatus	452,476	May 19	1687	424	55	908
Foster, Charles E., Washington, D. C., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, Boston, Mass. Store-service apparatus	465,965	Dec. 29	3131	803	57	1770
Foster, Charles E., Washington, D. C., assignor to Otis Brothers & Company, New York, N. Y. Elevator	459,238	Sept. 8	1086	265	56	1283
Foster, Charles E., Washington, D. C., assignor to F. C. Austin, Chicago, Ill. Road-scraper	460,126	Sept. 29	2499	622	56	1576

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Foster, Charles E., Washington, D. C., assignor to National Company, Chicago, Ill. Controlling device for elevators.	461,278	Dec. 1	436	104	57	1218
Foster, Charles F., J. M., and L. C., Filton, N. Y. Knife-sharpener.	462,001	Oct. 27	2369	587	57	476
Foster, Charles H., New York, N. Y., assignor to Singer Manufacturing Company of New Jersey. Work-guiding attachment for overseaming sewing-machines.	464,066	Dec. 1	90	23	57	1154
Foster, Charles K., Iola, Wis. Poison or fertilizer distributor.	446,772	Feb. 17	2050	511	54	931
Foster, Charles S., Whitesborough, N. Y. Electric-railway trolley.	465,469	Dec. 22	2330	598	57	1607
Foster, Charles W., New Haven, Conn. Steam-generator.	463,501	Nov. 17	2026	531	57	960
Foster, David, Onehunga, near Auckland, New Zealand. Miter-cramp.	454,039	June 16	1294	337	55	1411
Foster, E. W., et al. (See Rogers, George R., assignor.)						
Foster, Edward C., Ludington, Mich. Corset.	446,968	Feb. 24	2390	594	54	1004
Foster, F. H. (See Green, William W., assignor.)						
Foster, Froeling C., Chicago, Ill. Velocipede.	448,952	Mar. 24	2731	689	54	1664
Foster, George N., assignor to American Machine Company, Philadelphia, Pa. Beater for eggs, &c.	453,998	June 9	1240	322	55	1393
Foster, Henry A., Chicago, Ill. Picture-frame.	464,560	Dec. 8	849	209	57	1306
Foster, Horatio A., New York, N. Y., assignor to Thomson-Houston Electric Company, of Connecticut. Hanger for electric lamps.	449,153	Mar. 31	3040	768	54	1732
Foster, Horatio A., assignor of one-half to J. J. Moore, New York, N. Y. Switch-box.	461,239	Oct. 13	1082	273	57	216
Foster, Horatio A., New York, N. Y., assignor to Thomson-Houston Electric Company, of Connecticut. Globe-holder for electric arc lamps.	465,470	Dec. 22	2332	598	57	1608
Foster, James D., Ironton, Ohio. Grate-blower.	454,468	June 23	1939	505	55	1542
Foster, John. (See Caldwell, John, assignor.)						
Foster, John E., Ferndale, Cal. Harness.	445,428	Jan. 27	2302	597	54	476
Foster, John M. (See Foster, Charles F., J. M., and L. C.)						
Foster, John W., Detroit, Mich. Dressing for leather articles.	451,427	Apr. 28	2779	-----	55	562
Foster, John W., Fall River, Mass. Yarn or thread winding machine.	459,039	Sept. 8	775	188	56	1224
Foster, John W., Springfield, Mass. Yarn-spooling machine.	459,940	Sept. 8	777	189	56	1224
Foster, Langdon C. (See Foster, Charles F., J. M., and L. C.)						
Foster, Marshal T., Piedmont, Kans. Spring-equalizer.	456,406	July 21	1752	463	56	351
Foster, Matthew H., assignor to C. W. Morse, Haverhill, Mass. Automatic salesman.	464,067	Dec. 1	92	23, 24	57	1155
Foster, Merriam & Co. (See Hendrickson, Robert, assignor.)						
Foster, Merriam & Company. (See Perkins, Dwight W., assignor.)						
Foster, Rufus J., et al. (See Pocock, Francis A., assignor.)						
Foster, Timothy H. (See Ayres and Foster.)						
Foster, William C., La Crosse, Wis. Wagon eod-gate.	452,436	May 19	1612	400	55	896
Foster, William R., London, England. Pneumatic tire.	456,028	July 14	1168	306	56	230
Foster, William W., Boston, Mass. Electric cigar-lighting apparatus.	463,384	Nov. 17	1858	485 486	57	927
Fottrell, John, assignor to C. R. Griggs, S. Tebbutt, and A. Curtus, New York, N. Y. Disinfecting paving composition.	446,285	Feb. 10	1295	-----	54	768
Fougère, Angus, Moncton, Canada, assignor of two-thirds to C. C. Davison and J. A. Harris. Nut-lock.	465,094	Dec. 15	1724	438	57	1482
Foulis, William, Glasgow, Scotland. Apparatus for heating by gas.	449,757	Apr. 7	176	44	55	36
Fountain, Charles T., Beloit, Wis., assignor to Gesley Manufacturing Company. Plant-transplanter.	452,181	May 12	1197	303	55	807
Fouts, Lambert F., Trinity Mills, Tex. Annunciator.	461,748	Oct. 20	1957	485	57	388
Fowden, Samuel, Philadelphia, Pa. Steam-boiler.	451,322	Apr. 28	2623	647	55	533
Fowler, A. B. (See Fowler, Ernest S., assignor.)						
Fowler, Alfred B., and G. E. Warren, assignors to Rockingham Machine Company, Exeter, N. H. Heel-burnishing machine.	452,345	May 12	1462	362	55	858
Fowler, Anthony C., New Utrecht, N. Y. Combination rule, square, and circle-marker.	463,212	Nov. 17	1578	411	57	874
Fowler, Arthur H., Buffalo, N. Y. Radiator.	446,580	Feb. 17	1759	433	54	874
Fowler, Charles E. (See Fowler, Horace N. and C. E.)						
Fowler, Charles M., Salem, Mass. Fire-escape.	461,528	Oct. 20	1614	394	57	324
Fowler, Ernest S., assignor to A. B. Fowler, Chicago, Ill. Eyeglasses.	464,456	Dec. 1	688	168	57	1265
Fowler & Fowler. (See Radkey, Louis G., assignor.)						
Fowler, Frank, Mapleton, Mich. Horse hay-rake.	453,694	June 9	816	208	55	1311
Fowler, Frank G., Bridgeport, Conn. Automatic vacuum-regulator for boiler-feeding.	462,351	Nov. 3	215	51, 52	57	592
Fowler, Henry A. (See Field and Fowler.)						
Fowler, Herbert E., New Haven, Conn. Machine for welding metals.	450,666	Apr. 21	1592	381 382 383	55	327
Fowler, Horace N., Philadelphia, Pa., and C. E. Fowler, Hammonton, N. J.; said C. E. Fowler assignor to said Horace N. Fowler. Baking-machine.	444,379	Jan. 6	616	158 159 160 161	54	122
Fowler, John. (See Wood and Fowler.)						
Fowler, John, Louisville, Ky. Combined bait and drinking cup.	457,642	Aug. 11	1169	299	56	760
Fowler, John F., Brooklyn, N. Y. Potato-digger.	450,008	Apr. 7	535	133	55	104
Fowler, Joseph C. (See Henkle and Fowler.)						
Fowler, Joseph C., Washington, D. C. Roundabout.	451,373	Apr. 28	2689	667	55	546
Fowler, Judson P., et al. (See Waterbury and Rankin, assignors.)						
Fowler, Philip, Wayne, Neb. Railway-spike puller or extractor.	463,145	Nov. 17	1475	383	57	854
Fowler, Robert H., T. Benstead, and J. Ogelby, Leeds, England. Apparatus for steam cultivation.	463,502	Nov. 17	2028	532	57	961
Fowler, Rufus B., Worcester, Mass., assignor to T. D. Sayles, Norwich, Conn. Carding-engine for making mottled yarns.	448,479	Mar. 17	1983	498	54	1514
Fowler, Rufus B., Worcester, Mass., assignor, by mesne assignments, to Lugin Flexible Door Company, Portland, Me. Flexible curtain.	462,094	Oct. 27	2502	622	57	501
Fowler, Walter B., assignor of one-half to L. Saunders, Lawrence, Mass. Steam-boiler.	462,975	Nov. 10	1206	314	57	793
Fowler, William M., Milford, Conn. Apparatus for dispensing liquids.	454,997	June 30	2851	725 726	55	1719
Fowler, William M., Milford, Conn. Apparatus for dispensing drinks.	457,489	Aug. 11	943	239 240	56	715
Fowler, William M., Milford, Conn. Apparatus for dispensing drinks.	457,913	Aug. 18	1619	423	56	854
Fowler, William M., Milford, Conn. Apparatus for dispensing drinks.	460,260	Sept. 29	2689	670	56	1614
Fowler, William M., Milford, Conn. Recording apparatus for dispensing drinks.	463,304	Nov. 17	1721	450	57	901
Fowler, Willis. (See Carlstrom, Carl J., assignor.)						
Fowler, Zadoc, Fowler's, W. Va. Fence.	460,960	Oct. 13	653	168	57	134
Fox, Adam, Oakland, Md. Horseshoe-stand.	457,345	Aug. 11	707	181	56	670
Fox, Charles E., Minneapolis, Minn. Boat-propeller.	452,467	May 19	1673	419	55	906
Fox, Clarence W., Saugus, Mass. Shaker for mixing drinks.	447,069	Feb. 24	2564	636	54	1036
Fox, Clarence W., Saugus, Mass. Device for washing bottles.	457,603	Aug. 11	1114	284	56	749

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Fox, Edward B., and D. V. Brown, Philadelphia, Pa. Eyeglasses	452,351	May 12	1470	364	55	859
Fox, Edwin N., Winchester, Va. Lawn-mower	444,608	Jan. 13	982	255	54	203
Fox, Frank A., San Francisco, Cal. Car-coupling	455,589	July 7	474	123	56	92
Fox, Frank A., San Francisco, Cal., assignor to C. E. Bishop, Brooklyn, N. Y. Car-coupling	455,590	July 7	475	123	56	92
Fox, George H., Boston, Mass. Apparatus for preventing the spread of fires	461,913	Oct. 27	2237	553	57	451
Fox, Henry B., <i>et al.</i> (See Robinson, James, assignor.)						
Fox, James T., assignor of one-half to S. W. Porter, Sherman, Tex. Hand-stamp	448,606	Mar. 17	2182	545	54	1551
Fox, John, New York, N. Y. Machine for cutting screw-threads	451,169	Apr. 28	2364	587	55	484
Fox, John B. (See Ginter, William P., assignor.)						
Fox, John H., Boston, Mass. Gate for exit-passages of railway-cars	445,809	Feb. 3	503	121	54	610
Fox, John H., assignor of one-half to D. H. Vincent, Boston, Mass. Guard for exit-passages of railway-cars	445,808	Feb. 3	502	121	54	610
Fox, John H., Boston, assignor of one-twentieth to M. V. B. Flanders, Chelsea, Mass. Device for automatically operating car-brakes	457,313	Aug. 4	617	162	56	648
Fox, Joseph M., Peekskill, N. Y. Combined scarf-tip and fastener	463,268	Nov. 17	1672	437	57	892
Fox, Patrick B., Jersey City, N. J. Radiator	452,028	May 12	908	232	55	758
Fox, Rowland, Camden, assignor of one-half to I. C. Beatty, Merchantville, N. J. Loom-shuttle	449,932	Apr. 7	430	108	55	84
Fox, Rowland, assignor of one-half to I. C. Beatty, Camden, N. J. Woven pantaloons, overalls, &c	462,040	Oct. 27	2427	602	57	487
Fox, Samson, Leeds, England, assignor to Fox Solid Pressed Steel Company, Chicago, Ill. Pressed-steel beam	446,859	Feb. 24	2203	548	54	971
Fox, Samson, Leeds, England, assignor to Fox Solid Pressed Steel Company, Chicago, Ill. Apparatus for bending and forging steel	448,814	Mar. 24	2521	631	54	1624
Fox, Samson, Leeds, England, assignor to Fox Solid Pressed Steel Company, Chicago, Ill. Apparatus for bending and forging steel	448,815	Mar. 24	2522	632	54	1624
Fox, Samson, Leeds, England, assignor to Fox Solid Pressed Steel Company, Chicago, Ill. Under-frame for cars	461,428	Oct. 20	1388	351	57	283
Fox, Samson, Leeds, England, assignor to Fox Solid Pressed Steel Company, Chicago, Ill. Equalizing-bar for trucks	463,726	Nov. 24	2416	633	57	1042
Fox Solid Pressed Steel Company. (See Barnes, David L., assignor.)						
Fox Solid Pressed Steel Company. (See Fox, Samson, assignor.)						
Fox Solid Pressed Steel Company. (See Mackenzie-Hughes, Edward W., assignor.)						
Fox, William R., Grand Rapids, Mich. Dado-cutter	447,716	Mar. 3	702	176	54	1251
Fox, William R., Grand Rapids, Mich. Shaping-machine	459,629	Sept. 15	1728	433	56	1414
Fox, William R., Grand Rapids, Mich. Sash-cord guide	462,248	Nov. 3	44	11	57	560
Fox, William T., Rochester, N. Y. Meter	450,567	Apr. 14	1380	340	55	272
Foxwell, John B. (See Theermann, William P., assignor.)						
Foye, William H., Chicago, Ill. Apparatus for treating fermented liquors	445,163	Jan. 27	1919	495	54	399
Frail, Arthur W., Hopedale, Mass. Heddle for looms	461,462	Oct. 20	1459	367	57	297
Frame, Nathan T., Jamestown, Ohio. Railway-chair	446,633	Feb. 17	1834	454	54	888
France, Albert L., Milldale, assignor to Kenton Can Company, Covington, Ky. Lens attachment for lanterns	457,988	Aug. 18	1750	459	56	879
France, Albert L., Milldale, assignor to Kenton Can Company, Covington, Ky. Lens attachment for lanterns	457,989	Aug. 18	1751	459	56	879
France, Albert L., Milldale, assignor to Kenton Can Company, Covington, Ky. Lens attachment for tubular lanterns	457,990	Aug. 18	1751	459	56	879
France, Joseph R., New York, N. Y. Indelible print or picture	458,020	Aug. 18	1795	56	56	887
Francis, Allan E. (See Matthews and Francis.)						
Francis, Allan E., Cleveland, Ohio. Holder for gravers while being ground	449,673	Apr. 7	43	10	55	10
Francis, Allan E., Cleveland, Ohio. Pick	453,860	June 9	1046	274	55	1355
Francis, Allen E., Cleveland, Ohio. Pick	454,543	June 23	2056	532	55	1564
Francis, Allan E., Cleveland, Ohio. Wire clothes-pin	457,461	Aug. 11	891	230	56	706
Francis, Allan E., Cleveland, Ohio. Pick	461,881	Oct. 27	2182	538	57	440
Francis, Edward R. (See Drew and Francis.)						
Francis, George W., Reading, Pa. Chuck	461,469	Oct. 20	1460	367	57	297
Francis, Graham I. (See Fairfield and Francis.)						
Francis, Graham I., assignor to American Writing Machine Company, Hartford, Conn. Type-writing machine	448,646	Mar. 24	2257	566	54	1573
Francis, John C., assignor to E. M. Greene, New York, N. Y. Combined annunciator and telephone system	447,768	Mar. 10	802	199	54	1277
Francis, Sylvester G., New Bedford, Mass. Device for carrying barrels upstairs	456,559	July 28	2006	530	56	407
Frank, August H., assignor of two-thirds to W. F. Schulz and J. P. Wilson, Sheboygan, Wis. Device for charging and discharging enameling-ovens	463,503	Nov. 17	2030	532	57	961
Frank, Henry C., <i>et al.</i> (See Negral, Louis A., assignor.)						
Frank, Lester, New York, N. Y. Handle-fastening	452,218	May 12	1251	316	55	818
Frank, Myre H. (See Rosenfield, William W., assignor.)						
Frank, Samuel B., assignor of one-half to E. B. Polk, Nashville, Tenn. Pulverizer	447,674	Mar. 3	638	158	54	1238
Frank, Samuel B., assignor of one-half to E. B. Polk, Nashville, Tenn. Brick-machine	447,675	Mar. 3	639	158	54	1239
Frank, William E., assignor to Foster Brothers & Company, St. Louis, Mo. Spring-bed	453,556	June 2	590	150	55	1259
Franko, Ernst, Paterson, N. J. Letter-box	454,127	June 16	1417	370	55	1434
Franke, Friedrich M., Chemnitz, Germany. Ring spinning and twisting machine	456,249	July 21	1500	398	56	303
Franke, Henry. (See Hamelberg, August, assignor.)						
Franky, James F., Dodge City, Kans. Carriage mechanism for type-writing machines	458,566	Sept. 1	27	5, 6	56	1070
Franky, James F., Dodge City, Kans. Carriage-feeding mechanism for type-writing machines	458,567	Sept. 1	30	6, 7	56	1071
Franklin, Rhodolph H., assignor to C. C. Cummings, Brooklyn, N. Y. Combined pencil and pencil-sharpening knife	448,182	Mar. 10	1473	375	54	1408
Franklin, Rhodolph H., assignor of one-half to C. C. Cummings, Brooklyn, N. Y. Lead pencil	449,040	Mar. 24	2862	727	54	1690
Franklin, Rhodolph H., assignor to C. C. Cummings, Brooklyn, N. Y. Watch-key	453,168	May 26	2807	703	55	1130
Franklin, Rhodolph H., assignor to C. C. Cummings, Brooklyn, N. Y. Pocket-knife	456,087	July 14	1240	325	56	244
Franklin, Robert M., Galveston, Tex. Net for crabbing and fishing	446,440	Feb. 17	1550	381	54	832
Franklin, William, <i>et al.</i> (See Cruise, Amanda H., assignor.)						
Franks, William, Muskegon, Mich. Steam-actuated valve	460,858	Oct. 6	495	126	57	98
Frantz, Christian, Waynesborough, Pa. Thrashing-cylinder	449,438	Mar. 31	3539	892	54	1823
Frantz, Elias, Allentown, assignor of one-half to L. Guttentag, Coplay, Pa. Car-coupling	453,978	June 9	1206	315	55	1387
Frantz, M. P. (See Goodwin, Adolphus D., assignor.)						
Frasch, Herman, Cleveland, Ohio. Mining sulphur	461,429	Oct. 20	1389	351	57	283

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Frasch, Herman, Cleveland, Ohio. Apparatus for mining sulphur	461,430	Oct. 20	1392	352	57	284
Frasch, Herman, Cleveland, Ohio. Mining sulphur	461,431	Oct. 20	1396	352 353	57	284
Frasch, Herman, Cleveland, Ohio, assignor to Solar Refining Company, of Ohio. Process of and apparatus for refining and purifying petroleum	448,480	Mar. 17	1987	498	54	1514
Fraser, Andrew, assignor to Risdon Iron Works, San Francisco, Cal. Ore-concentrator ..	459,684	Sept. 15	1809	454 455	56	1431
Fraser, Charles E. (See Proctor, Fraser, Carter, and Middleton.)						
Fraser, Daniel, assignor to Excelsior Elevator Guard and Hatch Cover Company, New York, N. Y. Hatchway-door-operating device	464,721	Dec. 8	1113	276	57	1356
Fraser, Donald, Milwaukee, Wis. Rapping-plate for wooden patterns	457,991	Aug. 18	1752	460	56	879
Fraser, Donald, Milwaukee, Wis. Wire-winding tool	464,279	Dec. 1	438	105	57	1218
Fraser, Edwin J., San Francisco, Cal. Device for controlling horses	448,330	Mar. 17	1754	444	54	1471
Fraser, George, Auckland, New Zealand. Grinding and amalgamating mill for gold or silver ores	466,162	Dec. 29	3465	885	57	1836
Fraser, George J., Hamilton, Canada. Inkstand	460,435	Sept. 29	2959	740	56	1664
Fraser, Henry C., Charleston, S. C. Ratchet-brace	460,005	Sept. 22	2301	578	56	1531
Fraser, Robert H., Bourne, assignor to F. A. Lockwood, Boston, Mass. Dredging apparatus	457,314	Aug. 4	618	163	56	648
Fraser, Samuel T., W. E. Gilliland, and D. J. Wilson, Baird, Tex. Hair-tonic	454,401	June 16	1825	55	55	1511
Fraser, Simon M., and A. J. Stewart, Atlanta, Ga. Roll-box for cotton-gins	450,229	Apr. 14	877	218	55	175
Fraser, William, Sparkbush, assignor of one-half to J. G. Chapman, Birkenhead, England. Furnace	465,367	Dec. 15	2181	558 559	57	1567
Fraser, William S., Pittsburg, Pa. Automatic car-brake	452,700	May 19	2028	508	55	975
Fraser, Edward S., et al., administrators. (See Dalton, Eugene V.)						
Frattini, Carlo, Rome, Italy. Float	450,408	Apr. 14	1165	284	55	229
Frayer, Charles A., Keithsburg, Ill. Lawn-mower	450,568	Apr. 14	1382	341	55	273
Frazier, Edward U. (See Parsons and Frazier.)						
Frazier, Eugene. (See Reed and Frazier.)						
Frazier, Thornton A., Highlands, assignor of two-thirds to J. F. Benedict and G. W. Huntington, Denver, Colo. Puzzle	446,513	Feb. 17	1662	406	54	854
Frazier, Franklin P. (See Frazier and Milam, assignors.)						
Frazier, James L., Chicago, Ill. Door-securer	463,361	Nov. 17	1821	476	57	920
Frazier, Joseph A., and W. A. Milam; said Milam assignor to F. P. Frazier, Corrona, Miss. Brick-machine	447,949	Mar. 10	1112	279	54	1336
Frazier, Simon F., Queenemo, Kans. Boot or shoe case	447,150	Feb. 24	2716	673	54	1064
Frear, William, Ithaca, N. Y. Pop-corn-balling machine	451,119	Apr. 28	2276	563	55	467
Frech, William, Chicago, Ill. Punching-machine	449,154	Mar. 31	3041	769	54	1732
Fredericks, John H. (See Beck, Jacob P., assignor.)						
Fredericks, Charles, Brooklyn, N. Y. Photographic background	453,313	June 2	208	55	55	1187
Free, John W., New York, N. Y. Heat-radiator for burners	455,543	July 7	396	103	56	77
Freeman, Albert A., Philadelphia, Pa. Preserving oysters, &c.	459,220	Sept. 8	1061	258	56	1278
Freeman, Albert A., assignor of one-eighth to G. Evans, Philadelphia, Pa. Preserving bi-valves	453,144	May 26	2755	694	55	1123
Freeman, Benjamin S., Jr., Attleborough Falls, Mass. Chain-fastening	446,593	Feb. 17	1777	438	54	877
Freeman, Charles C., Dixfield, Me. Tooth-pick	448,647	Mar. 24	2260	567	54	1573
Freeman, Frederic, and C. I. Haley, New Orleans, La. Portable fence	463,893	Nov. 24	2670	696	57	1090
Freeman, George W., Lansing, Mich. Road-cart	458,021	Aug. 18	1796	469	56	887
Freeman, Horace L., Lexington, N. C. Engine-governor	459,545	Sept. 15	1581	395	56	1387
Freeman, James H., Jr., Howard, Colo. Rocking scale	465,174	Dec. 15	1862	472	57	1507
Freeman, James P., assignor of two-thirds to M. C. Stone and P. T. Dodge, Washington, D. C. Lightning-arrester	458,656	Sept. 1	172	40	56	1098
Freeman, John W., Joplin, Mo. Device for throwing the cranks of engines off the dead-center	450,009	Apr. 7	536	134	55	104
Freeman, Manfred. (See Sherlock and Freeman.)						
Freeman, Selim, South Orange, N. J. Horse-checking device	456,235	July 21	1479	393	56	299
Freeman, Walter K., Brooklyn, N. Y., assignor to W. S. Hadaway, Jr., trustee, Boston, Mass. Electric motor or generator	452,934	May 26	2418	609	55	1058
Freeman, Walter K., Brooklyn, N. Y., assignor to W. S. Hadaway, Jr., trustee, Boston, Mass. Electric motor or generator	452,935	May 26	2419	610	55	1058
Freeman, Walter K., Brooklyn, N. Y., assignor to W. S. Hadaway, Jr., trustee, Boston, Mass. Electric meter	452,936	May 26	2420	610 611	55	1059
Freeman, Walter K., Brooklyn, N. Y., assignor to W. S. Hadaway, Jr., trustee, Boston, Mass. Electric switch	452,937	May 26	2422	611	55	1059
Freeman, William F. (See Welsh, Pierre V. W., assignor.)						
Freeman, William F., et al. (See Martin, Frank, assignor.)						
Freeman, William R., Sterling, Ill. Clothes-rack	455,874	July 14	932	245	56	188
Freeport Hardware Manufacturing Company. (See Wiles, Robert H., assignor.)						
Freer, Harry H., assignor of one-half to J. W. Bird, Pontiac, Mich. Umbrella-case	462,249	Nov. 3	45	11	57	560
Freeze, Claus, St. Louis, Mo., assignor to International Car Step Company, Jersey City, N. J. Car-step	459,171	Sept. 8	989	242	56	1264
Freeze, Claus, St. Louis, Mo., assignor to International Car Step Company, Jersey City, N. J. Car-step	459,172	Sept. 8	996	242	56	1264
Freeze, Claus, assignor to W. Pfeifer, A. C. Erfort, and A. C. Storck, St. Louis, Mo. Gar-ter	463,985	Nov. 24	2817	730	57	1118
Freeze, John D., Chicago, Ill. Skate	454,040	June 16	1295	338	55	1411
Freeze, Elisha C. (See Bennett and Freeze.)						
Frei, Peter, et al. (See Cone, John, assignor.)						
Freiburghouse, Edward W., assignor to himself and E. Keim, Sabetha, Kans. Cultivator	455,709	July 7	668	176	56	129
Freidenrich, Samuel, and T. J. Geisler, Portland, Oreg. Piano-mute	459,837	Sept. 22	2051	515	56	1485
Freiner, Emil, Buffalo, assignor to F. Freiner, Hamburg, N. Y. Musical instrument	449,439	Mar. 31	3540	892	54	1823
Freiner, Francisca. (See Freiner, Emil, assignor.)						
Freling, Harmon A., Westfield, N. Y. Cultivator	453,632	June 9	719	185 186	55	1292
Frelleohr, Julius, New York, N. Y., and L. Tisch, Hoboken, N. J. Knitting-machine	457,265	Aug. 4	533	142	56	631
French, Albert C., Monmouth, Ill. Whiffletree-hook	452,668	May 19	1976	496	55	964
French, Alonzo, New York, N. Y. Lamp	459,135	Sept. 8	927	223	56	1254
French, Alvah S., New York, N. Y. Shoe-fastener	444,824	Jan. 20	1324	343	54	276
French, Charles H., et al. (See Elliott, Richard P., assignor.)						
French, Charles H., et al. (See Elliott, William J., assignor.)						
French, Clarence E., Jacksonville, Tex. Music-holder	462,122	Oct. 27	2559	635	57	512
French, Erastus S., Princeton, assignor to G. Waite, Baldwinville, Mass. Convertible chair	445,774	Feb. 3	434	107 108	54	597
French, Erastus S., Princeton, assignor to G. Waite, Baldwinville, Mass. Chair	449,114	Mar. 31	2985	754	54	1722

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French, George W., and W. P. Bettendorf, Davenport, Iowa. Harrow.....	445,444	Jan. 27	2319	602	54	479
French, Hiram W., Allegheny, Pa. Cushioning and padding for jambs.....	455,791	July 14	809	211	56	165
French, James C., Brooklyn, N. Y. Pavement or floor light.....	445,311	Jan. 27	2134	551	54	442
French, James C., Brooklyn, N. Y. Insole.....	445,312	Jan. 27	2134	551	54	442
French, James H., assignor of one-half to H. J. Smith, Defiance, Ohio. Square and pitch-board.....	456,216	July 21	1438	381	56	292
French, John B., St. Louis, Mo. Automatic cable-lifter.....	446,337	Feb. 10	1378	336	54	785
French, Mary S., Monmouth, Ill. Attachment for lamp-chimneys.....	461,749	Oct. 20	1958	486	57	388
French, Philo N., assignor to A. French Spring Company, Limited, Pittsburg, Pa. Elliptic spring.....	457,266	Aug. 4	539	141	56	632
French, Philo N., assignor to A. French Spring Company, Limited, Pittsburg, Pa. Car-spring.....	459,249	Sept. 8	1103	269	56	1287
French, Zachary T., Boston, Mass., assignor to Goodyear Shoe Machinery Company, Hartford, Conn. Channeling-machine.....	453,999	June 9	1240	323	55	1393
Freercks, Henry, Chicago, Ill. Sample or picture exhibitor.....	457,101	Mar. 10	889	292	54	1293
Freshl, Alfred, Oshkosh, Wis. Burial-casket lid.....	458,527	Aug. 25	2616	637	56	1050
Frew, James, Dunaskin, Scotland. Valve for steam-engines.....	463,260	Nov. 17	1657	431 432 433 434	57	890
Frey, Frank, and A. M. Wayne, assignors to G. W. and W. H. Murphy, Quincy, Ill. Incubator.....	456,407	July 21	1753	463 464	56	351
Frey, Frank A. (See Long, William K., assignor.)						
Frey, Frederick E. (See Frey, James A. and F. E.)						
Frey, James A. and F. E., assignors to Frey-Sheckler Company, Bucyrus, Ohio. Cutting-table for brick or tile machines.....	446,338	Feb. 10	1379	337	54	786
Frey-Sheckler Company. (See Frey, James A. and F. E., assignors.)						
Frey-Sheckler Company. (See Thompson, John, assignor.)						
Fri, Charles E. (See McClure and Fri.)						
Frick, Abraham O., Waynesborough, Pa. Cash-recorder.....	448,481	Mar. 17	1989	498 499	54	1514
Frick, Charles C., and N. P. Wood, Blue Springs, Mo. Two-wheeled vehicle.....	448,015	Mar. 10	1231	313	54	1358
Frick, George, Waynesborough, Pa. Threshing-machine.....	447,043	Feb. 24	2520	625 626	54	1028
Fricke, Thomas, Ashtabula, Ohio. Hose-coupling.....	455,249	June 30	3271	829	55	1800
Fricke, Thomas, assignor of one-half to L. W. and J. L. Smith, Ashtabula, Ohio, and S. A. Reed, Erie, Pa. Trolley-wire support.....	460,634	Oct. 6	163	41	57	34
Fridley, William A. (See Watkins, Charles G. D., assignor.)						
Friedburg, Ludwig H., assignor to himself and C. E. Dressler, New York, N. Y. Gas-burner.....	457,153	Aug. 4	337	86	56	598
Friede, Carl H. and H., Niederplanitz, near Zwickau, Germany. Safety-sole for boots or shoes.....	457,423	Aug. 11	829	214	56	695
Friede, Hugo. (See Friede, Carl H. and H.)						
Friede, Samuel M., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.....	445,987	Feb. 10	784	191	54	675
Friede, Samuel M., assignor of one-half to E. H. Wolff, St. Louis, Mo. Spring-clamp label-holder.....	462,123	Oct. 27	2560	635	57	512
Friedel, Robert, Stuttgart, Germany. Machine for grinding oval glasses.....	465,695	Dec. 22	2702	689	57	1678
Friedel, Robert, assignor to Stuttgart-Fürther Holz & Spiegelmanufaktur, Stuttgart, Germany. Oval-grinding machine.....	445,169	Jan. 27	1920	495 496	54	399
Friedmann, Benjamin M. (See Kerngood and Friedmann.)						
Friedrich, Pancratius, and A. Kessler, Chicago, Ill. Censer.....	457,490	Aug. 11	948	240	56	716
Friedrichs, Ernest H., New York, N. Y. Clamp for easels.....	455,844	July 14	892	234	56	180
Friederick, Philippe, Langley, Kans. Corn-planter.....	444,645	Jan. 13	1035	269 270	54	213
Friegel, Frederick M., New Palestine, assignor of one-half to D. Fair, Greenfield, Ind. Gig-saddle.....	450,067	Apr. 7	615	155	55	119
Friend, John, North Star, Ohio. Flood-gate.....	457,434	Aug. 11	845	219	56	698
Friend, John T., Irvine, Ky. Car-coupling.....	456,809	July 28	2425	640	56	486
Friend, William, New York, N. Y. Lubricant block.....	445,988	Feb. 10	786	191	54	675
Friend, William, New York, N. Y. Lubricant lining for friction-bearings.....	445,989	Feb. 10	787	191	54	675
Fries, Albert, New York, N. Y. Inclosed weighing-balance.....	452,371	May 19	1502	372	55	876
Friestedt, Luther P., Chicago, Ill. Vehicle axle and bolster.....	444,590	Jan. 13	960	249	54	199
Friestedt, Luther P., Chicago, Ill. Wagon-axle.....	444,591	Jan. 13	961	249	54	199
Frietsch, Karl G., Schenectady, N. Y., assignor to Edison Machine Works, of New York. Commutator-brush.....	448,331	Mar. 17	1755	444	54	1471
Frillman, Frederick, Jr., Chicago, Ill. Carpet-fastener.....	448,220	Mar. 17	1550	396	54	1431
Frink, John M., and J. Readman, Seattle, Wash. Logging-truck.....	453,557	June 2	591	151	55	1259
Frisbey, Russel, Elmira, N. Y. Treadle.....	457,315	Aug. 4	619	163	56	648
Frisbie, Charles A., Stanberry, Mo. Sash-fastener.....	446,969	Feb. 24	2391	595	54	1004
Frisbie, Russel, assignor to J. & E. Stevens Company, Cromwell, Conn. Toy pistol.....	458,548	Aug. 25	2643	643	56	1056
Frist, Robert P. (See Dewes and Frist.)						
Frist, Robert P., assignor, by mesne assignments, to Delaware Hard Fibre Company, Wilmington, Del. Manufacture of rods of parchmentized fiber. (Reissue).....	11,173	June 30	3370	849	55	1820
Frits, Milton C., La Harpe, Ill. Bridge.....	446,339	Feb. 10	1382	338	54	786
Fritsch, Wilhelm, Zaborze, Germany. Coke-oven.....	455,684	July 7	619	163	56	120
Fritschi, Adolf. (See Brasnahan, Richardson, and Fritschi.)						
Fritschi, Adolf, Suisun City, Cal. Knife and scissors sharpener.....	456,618	July 28	2109	557	56	427
Fritz, Abraham A., assignor to J. G. van den Elshout, Brussels, Belgium. Apparatus for producing gas.....	464,963	Dec. 15	1475	371	57	1437
Fritz, George J. (See Leonhardt, Martin W., assignor.) (Reissue.)						
Fritz, George J. (See Smith and Fritz.)						
Fritz, George J., St. Louis, Mo. Ironing-machine.....	458,893	Sept. 1	544	132	56	1169
Fritz, Herman, Passaic, N. J. Cornice.....	460,718	Oct. 6	300	73	57	59
Fritz, John L., Watertown, assignor of one-half to H. Brainard, Adams, N. Y. Work-holder.....	451,925	May 12	747	188	55	727
Frizen, John E. (See Gregory, Daniel L., assignor.)						
Fröideveaux, Sarah R., Allegheny, Pa. Device for sharpening scissors.....	464,354	Dec. 1	551	135	57	1239
Fromolf, Nicholas, and W. Subbotin, Boston, Mass. Safety cut-out for overhead wires.....	459,721	Sept. 15	1869	470	56	1443
Fromm, Carl, Stuttgart, Württemberg, Germany. Packing-ring.....	456,243	July 21	1493	396	56	302
Fromm, Louis, et al. (See Schrike, Richard, assignor.)						
Frommhold & Vaughtmann. (See Adolphus, James M., assignor.)						
Frommhold, Alfred, and F. Voigtmann, assignors to Frommhold & Voigtmann, Chicago, Ill. Draft-regulator.....	459,330	Sept. 8	1226	300 301	56	1312

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Frommhold & Veigtmann. (See Frommhold and Veigtmann, assignors.)						
Fronheiser, James J., and S. W. Vanghen, Johnstown, Pa. Apparatus for cooling the walls of blast-furnaces.	460,006	Sept. 22	2303	578	56	1532
Front Rank Steel Furnace Company. (See Campbell, Francis M., assignor.)						
Frost, Abel H., Chicago, Ill. Guide for weaving coiled wire fabrics.	464,693	Dec. 8	1062	264	57	1346
Frost, Carl. (See Hagström, Anders, assignor.)						
Frost, Charles A., Western, Nebr. Mechanism for operating pumps.	445,990	Feb. 10	788	192	54	675
Frost, Edward J., Philadelphia, Pa. Device for regulating the quality of carbureted vapor or gas.	451,037	Apr. 28	2165	535	55	443
Frost, Edward J., assignor to Railway Lighting and Heating Company, Philadelphia, Pa. Carburetor and attachment for lamps connected therewith.	451,036	Apr. 28	2164	535	55	443
Frost, Elizabeth H. (See Barnes, David L., assignor.)						
Frost, George J., Toronto, Canada. Animal-trap.	459,163	Sept. 8	972	236	56	1262
Frost, Henry S., Watertown, Conn. Spoel or bobbin.	458,971	Sept. 1	658	161	56	1194
Frost, Henry S., Watertown, Conn. Umbrella-runner.	458,972	Sept. 1	659	161	56	1194
Frost, Isaac H., Philadelphia, Pa. Chain-link clothes-line.	463,400	Nov. 17	1893	493	57	933
Frost, John C., Statesville, N. C. Apparatus for casing tobacco.	446,441	Feb. 17	1553	381	54	832
Frost, Leonard L., Barada, Nebr. Car-coupling.	445,279	Jan. 27	2088	539	54	431
Frost, Leonard L., Barada, Nebr. Railway-tie.	451,120	Apr. 28	2277	564	55	467
Frost, Louis W., <i>et al.</i> (See D'Homergue, Louis C., assignor.)						
Frost, Milton, New Bedford, Mass. Vehicle-step.	455,194	June 30	3192	809	55	1785
Frost, Richard L., assignor to Union Manufacturing Company, Battle Creek, Mich. Bushing for valve-chests.	458,623	Sept. 1	117	26	56	1089
Frost Veneer Seating Company. (See Gardner, William, assignor.)						
Frost, Walter E., assignor to W. W. Sanborn, Lewiston, Me. Crimping-machine.	458,951	Sept. 1	624	154	56	1187
Frost, Walter E., Lewiston, Me., assignor to S. W. Jamison Boot and Shoe Crimping Machine Company, New York, N. Y. Crimping-machine for boots or shoes.	463,970	Nov. 24	2792	724	57	1114
Frostad, Peter E., La Conner, Wash. Rudder for boats.	453,338	June 2	250	66	55	1196
Frueh, Jacob, Chicago, Ill. Roundabout.	446,182	Feb. 10	1110	272	54	732
Fry, Franklin O., Richmond, Ind. Roll-grinding machine.	461,828	Oct. 27	2099	517	57	424
Fry, Frederick D., Danbury, Conn. Machine for pressing the brims and shaping the crowns of hats.	465,129	Dec. 15	1793	453 454	57	1495
Fry, Henry C., <i>et al.</i> (See Finley, Norval H., assignor.)						
Fry, John H., assignor of one-half to E. A. Fletcher, Grand Rapids, Mich. Adjustable folding desk.	450,580	Apr. 14	1396	344	55	275
Frye, John J. (See Stevens, Ansel, assignor.)						
Fryer, William J., Jr., New York, N. Y. Chimney-flue.	462,041	Oct. 27	2428	602	57	487
Fuchs, Benjamin F., Tiger Mill, Tex. Tuning-hammer.	458,568	Sept. 1	34	7	56	1072
Fuchs, Robert, Biberach, Germany, assignor to W. Dieterich, New York, N. Y. Combination cane and slide-gage.	448,016	Mar. 10	1233	313	54	1359
Fudge, Coleman J. (See Licklider, Samuel E., assignor.)						
Fudge, Peter M., Ladoga, Ind. Automatic gate.	462,042	Oct. 27	2430	602	57	488
Fuel Gas and Manufacturing Company. (See Dutton, Chauncey N., assignor.)						
Fuel Gas and Manufacturing Company. (See Goetz and Rund, assignors.)						
Fuel Gas and Manufacturing Company. (See Rund, Edwin, assignor.)						
Fugate, James L., Indianapolis, Ind. Meat-tenderer.	456,670	July 28	2191	530	56	444
Fuhrman, Lewis P., <i>et al.</i> (See Conroy, Thomas, assignor.)						
Fujiki, Suyeto, Tokio, Japan. Type-writing machine.	464,355	Dec. 1	551	135	57	1239
Fulda, Louis P. (See Wilson, Robert R., assignor.)						
Fuldheim, Sammel. (See Skuborvius and Fuldheim.)						
Fulkerson, Charles H., assignor of one-half to J. F. Fulkerson, Raum, Ill. Hand-planter.	465,846	Dec. 29	2936	751	57	1733
Fulkerson, Franklin, Russiaville, Ind. Fence.	451,374	Apr. 28	2691	667	55	546
Fulkerson, James F. (See Fulkerson, Charles H., assignor.)						
Fullenwider, M. C., <i>et al.</i> (See Werner, Louis G., assignor.)						
Fuller, Arthur, <i>et al.</i> (See Daggett, John C., assignor.)						
Fuller, Charles D., Kalamazoo, Mich. Wash-board.	455,036	June 30	2916	741	55	1731
Fuller, Charles H., Norwalk, Ohio. Thill-coupling.	462,250	Nov. 3	46	12	57	561
Fuller, Charles M. (See Prentice and Fuller.)						
Fuller, Charles W., Sharon, S. C. Fertilizer-distributor.	460,961	Oct. 13	654	169	57	135
Fuller, Charles W. B., Malden, assignor of two-thirds to J. R. Taylor, Lynn, and G. K. Holbrook, Saugus, Mass. Bevel.	450,823	Apr. 21	1831	444	55	371
Fuller, George R., Rochester, N. Y. Truss-pad.	453,298	June 2	179	50	55	1181
Fuller, Harvey R., Butler, Ind. Lead or crayon pencil.	466,300	Dec. 29	3682	940	57	1876
Fuller, Hiram H., Meadville, Pa. Drill-press.	456,560	July 28	2006	530	56	407
Fuller, Ira A., Pepin, Wis. Water-gage.	444,295	Jan. 6	496	129	54	99
Fuller, Lafayette D., Muscogee, Indian Ter. Fire-extinguisher.	465,757	Dec. 22	2792	715	57	1696
Fuller, Levi K., assignor to Estey Organ Company, Brattleborough, Vt. Electric-motor attachment for reed-organs.	444,169	Jan. 6	316	76	54	64
Fuller, Levi K., assignor to Estey Organ Company, Brattleborough, Vt. Key for musical instruments.	463,986	Nov. 24	2818	730	57	1118
Fuller, Perry A. (See Potter, James E., assignor.)						
Fuller, Samuel B., Pawtucket, R. I. Gate for car-platforms.	446,514	Feb. 17	1663	406	54	855
Fuller, Willard H., Passaic, N. J., assignor to Scott & Adams Company, New York, N. Y. Photographic camera.	445,550	Feb. 3	32	9	54	517
Fuller, Willie C., Kirwin, Kans. Electric belt.	448,953	Mar. 24	2732	689	54	1664
Fuller, Winfield L., Walker, Kans. Ventilated crematory-closet.	446,340	Feb. 10	1383	338	54	766
Fullilove, A. B. (See Laws, Benjamin T., assignor.)						
Fullmer, Willis E., Round Grove, Ill. Hay-carrier.	454,860	June 30	2569	661	55	1665
Fulmer, Charles F., and W. E. Kelvie, Plainfield, N. J. Lathe-chuck.	455,195	June 30	3193	810	55	1785
Fulmer, Charles F., and W. E. Kelvie, Plainfield, N. J. Planer-chuck.	455,196	June 30	3194	811	55	1786
Fulton, Clinton, <i>et al.</i> (See Christofferson, Hans, assignor.)						
Fulton, Jacob A., Astoria, Oreg. Filter.	454,340	June 16	1732	451	55	1495
Fulton, William. (See Shranger and Fulton.)						
Funk, Christian B. (See Gillis, Charles W., assignor.)						
Funk, Christian C., Springfield, Ohio. Sewer-trap.	444,747	Jan. 13	1205	312	54	244
Funk, Daniel D., and J. P. White, Springfield, Ohio. Horse hay-rake.	448,332	Mar. 17	1756	444	54	1474
Funk, Edward, Cincinnati, Ohio. Running-gear for vehicles.	447,109	Feb. 24	2619	650	54	1048
Funk, Isaac K., <i>et al.</i> (See Fitch, Henry, assignor.)						
Funk, John B. (See Ely, Funk, and Ely.)						
Funk, Lucius A. (See Cunningham and Funk.)						
Funk, William R., Nebraska City, Nebr. Railway-splice.	457,267	Aug. 4	540	141	56	632
Funk, Franz, Milwaukee, Wis. Steam-trap.	452,128	May 12	1107	282	55	790

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Funsch, Oliver J. (See Stoeppelwerth and Knefelkamp, assignors.)						
Furber, John E., Lawrence, Mass. Substitute for white of eggs	458,419	Aug. 25	2444	-----	56	1018
Furber, John E., Lawrence, Mass. Compound as a substitute for yelk of eggs	458,420	Aug. 25	2445	-----	56	1018
Furchgott, Leopold, <i>et al.</i> (See Kahn, Leopold, assignor.)						
Furchgott, Max, <i>et al.</i> (See Kahn, Leopold, assignor.)						
Furgeson, Hugh, <i>et al.</i> (See Stoop, William J., assignor.)						
Furlong, Lawrence F., and F. O. Tucker; said Furlong assignor to A. Whitney and S. W. Bishop, Hartford, Conn. Electric switch	453,633	June 9	722	186	55	1292
Furman, De Witt C., Washington, Pa. Sand-reel	455,530	July 7	369	94	56	72
Furman, Fredric L., assignor to Herendeen Manufacturing Company, Geneva, N. Y. Hot-water heater	452,637	May 19	1935	485	55	956
Furness, Frank, Philadelphia, Pa. Fire-proof floor	444,935	Jan. 20	1552	398	54	318
Fuson, Mollie. (See Stevenson, John W., assignor.)						
Fustian Cutting Machine Company. (See Smith, Goddard, Higginbottom, and Mannoek, assignors.)						
Fyler, Roman B., Worcester, Mass. Haud-rubber	445,369	Jan. 27	2212	574	54	458
Fyrberg, Andrew. (See Johnson and Fyrberg.)						
G. J. Dickson Manufacturing Company. (See Dickson, Gilbert J., assignor.)						
G. S. Foos Company. (See Slager and Linn, assignors.)						
Gaarder, Axel H. (See Bowman, Bion H., assignor.)						
Gaarder, Simon L., Starbuck, Minn. Watch-regulator	459,278	Sept. 8	1147	280	56	1296
Gaarder, Simon L., assignor to one-third to K. L. Brevig, Starbuck, Minn. Watch-regulator	459,279	Sept. 8	1148	280	56	1296
Gabbett, James T. and W. D. St. Albans, W. Va. Wagon-brake	447,448	Mar. 3	290	73	54	1172
Gabbett, William D. (See Gabbett, James T. and W. D.)						
Gabbett, Edmund R., Old Charlton, assignor of one-half to S. B. Boulton, T. B. Haywood, and H. E. Boulton, London, England. Apparatus for mixing liquids	444,345	Jan. 6	566	145	54	113
Gabbey, Robert S., Rossville, Kans. Cultivator	444,346	Jan. 6	568	145	54	113
Gäbel, Richard, Dresden, Germany. Cutting-tool	448,017	Mar. 10	1234	314	54	1359
Gaberel, Adolph H., Fredericksburg, Ohio. Cultivator-point	458,338	Aug. 25	2313	565	56	993
Gaddis, Eugene E., and T. G. Lewis, Washington, D. C. Playing-cards	454,861	June 30	2571	661	55	1666
Gaddis, Lucy, Gold Hill, N. Mex. Ter. Car-coupling	452,267	May 12	1328	331	55	833
Gaddis, Lucy, Gold Hill, N. Mex. Ter. Key-hole guard	454,789	June 23	2441	627	55	1636
Gaede, John W., Maroa, Ill. Automatic measuring-machine	448,018	Mar. 10	1235	314	54	1359
Gaffney, Charles H., Gloucester, Mass. Last-block fastener	451,759	May 5	488	121	55	670
Gafney, Thomas F., and T. C. Dawson, Lynn, Mass. Leather-working machine	448,422	Mar. 17	1895	{ 475 476 }	{ 54 54 }	{ 1497 1497 }
Gage, Adelbert S. (See Gage, Charles W. and A. S.)						
Gage, Charles L., Syracuse, N. Y. Sewer-trap	461,955	Oct. 27	2308	572	57	464
Gage, Charles M., Pepperell, Mass. Matrix-board	465,847	Dec. 29	2938	751	57	1734
Gage, Charles W., deceased, and A. S. Gage, Homer, N. Y.; E. C. Johnson administrator; Band-saw veneer-cutter	452,219	May 12	1252	{ 316 317 }	{ 55 55 }	{ 819 819 }
Gage, George F., Huntingdon, Pa. Draw-bar for cars	458,569	Sept. 1	35	7	56	1072
Gage, Walter H., West Fitchburg, Mass. Handle for chisels	446,442	Feb. 17	1555	382	54	833
Gage, William S., San Francisco, Cal. Coin-wrapper	445,445	Jan. 27	2320	602	54	479
Gagné, Augustin, assignor of one-half to O. Nadeau, Biddeford, Me. Means for operating washing-machines	450,786	Apr. 21	1761	428	55	359
Gaiger, Robert, Jersey City, N. J. Making punches from dies	454,618	June 23	2193	566	55	1587
Gaillac, Eugene G., assignor to himself, J. W. Hobbs, and H. W. Rogers, Chelsea, Mass. Towel-holder	451,182	Apr. 28	2401	593	55	489
Gaillet, Paul H. A., Lille, France. Filter	459,574	Sept. 15	1627	408	56	1397
Gaines, Erasmus D., Sterling, Ill. Eyelinting-machine	453,182	June 2	8	2	55	1150
Gaines, Thomas W., Jr., Clarksville, Tex. Facing-slip and label holder	454,341	June 16	1734	451	55	1495
Gair, Robert. (See Vierengel, Matthew, assignor.)						
Gairing, Robert R., Cleveland, Ohio. Car-brake	463,187	Nov. 17	1540	402	57	866
Gaiser, Charles A., <i>et al.</i> (See Hoffmann, William R., assignor.)						
Gaither, Ira H., Albion, Mich. Endless traveling conveyor	466,229	Dec. 29	3565	913	57	1854
Gajardo, Adrian, Valparaiso, Chili. Gate for use in connection with passenger-registers	460,719	Oct. 6	302	73	74	60
Galantha, Nicolaus B. de, Moscow, Russia. Rotary tooth-brush	454,644	June 23	2234	574	55	1594
Galbraith, Walter, Santa Cruz, Cal. Water-wheel	463,792	Nov. 24	2501	653	57	1058
Gale, Charles C., R. Cowles, and A. W. Davies, assignors to said Gale and Davies, E. C. Garlick, and C. C. Harris, Cleveland, Ohio. Car-mileage report	455,197	June 30	3197	811	55	1786
Gale, Charles C., R. Cowles, and A. W. Davies, assignors to said Gale and Davies, E. C. Garlick, and C. C. Harris, Cleveland, Ohio. Car-mileage register	456,650	July 23	2156	{ 571 572 }	{ 56 56 }	{ 437 437 }
Gale, George F. (See Holmes and Gale.)						
Gale, Horatio, assignor to Gale Manufacturing Company, Albion, Mich. Cultivator	453,469	June 2	464	119	55	1236
Gale Manufacturing Company. (See Gale, Horatio, assignor.)						
Gale Manufacturing Company. (See Hickman, Edgar M., assignor.)						
Gale Manufacturing Company. (See Wiseloge, Christian D., assignor.)						
Gales, Nicholas W., Colo, Iowa. Milk-scaldor	464,622	Dec. 8	943	232	57	1325
Galibert, Jean P. A., Paris, France. Life-buoy	461,956	Oct. 27	2309	572	57	464
Gallagher, Edward, Lock Haven, Pa. Composition for artificial stone	457,953	Aug. 18	1690	-----	56	868
Gallagher, John J., St. Louis, Mo. Electric time-alarm	448,712	Mar. 24	2368	592	54	1595
Gallagher, John L., assignor to Dibble Manufacturing Company, Trenton, N. J. Shank for knobs or handles	444,524	Jan. 13	855	223	54	179
Gallagher, Timothy S. (See Baker, John E., assignor.)						
Galland-Henning Pneumatic Maltng Drum Manufacturing Company. (See Giesler, Franklin B., assignor.)						
Galloway, Robert M., New York, N. Y. Safety attachment for fire-arms	462,859	Nov. 10	1019	263	57	757
Galle, Charles, St. Louis, Mo. Flexible window-pane or sign	463,273	Nov. 17	1677	438	57	893
Galligan, Hugh P., Wheatland, Cal. Finger-beam attachment for harvesters	460,724	Oct. 6	310	76	57	61
Galloway, Robert, Macedon, N. Y. Grain-seeding machine	450,787	Apr. 21	1761	428	55	359
Gallup, Andrew H., and W. Sallee, Chicago, Ill. Monkey-wrench	462,280	Nov. 3	91	24	57	568
Gallup, Ben K. (See Sargent and Gallup.)						
Gallup, Elijah A., Hancock, Iowa. Car-coupling	459,177	Sept. 8	999	244	56	1266
Gallup, Silas N., Macedon, N. Y. Type-bar for type-writing machines	445,170	Jan. 27	1922	496	54	400
Galpin, William A. (See Mackey, George H., assignor.)						
Galt, John, Toronto, Canada. Furnace	460,469	Sept. 29	3014	755	56	1674
Galt, Mylo L. (See Johnson, Will R., assignor.)						
Galt, Thomas A., Sterling, Ill. Wash-stand and commode cabinet	455,792	July 14	810	212	56	165
Galt, Thomas A., Sterling, Ill. Combined wardrobe and desk	457,450	Aug. 11	869	226	56	702
Galvin, John. (See Galvin, Thaddeus and J.)						
Galvin, Thaddeus and J., Detroit, Mich. Gate-hydrant	458,733	Sept. 1	281	68, 69	56	1120

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Gambetta, John. (See Thibault and Harsin, assignors.)						
Gambec, Charles. (See Gibbs, Gardner A., assignor.)						
Gamble, Alexander, Hudson, Wis. Fluid-level	451,680	May 5	361	89	55	648
Gamble, James H., Merrimac, Wis. Swinging barrel-support	444,978	Jan. 20	1618	414	54	332
Gamble, James H., Merrimac, Wis. Barrel-swing	465,058	Dec. 15	1660	423	57	1470
Gamble, James N. (See Strong, George S., assignor.)						
Gamble, John. (See Egler, Jacob D., assignor.)						
Gamble, John E., assignor of one-half to W. Brunt, East Liverpool, Ohio. Brick-kiln	448,333	Mar. 17	1758	445	54	1471
Gamble, Joseph W., Adair, Iowa. Draft-equalizer	445,638	Feb. 3	194	51	54	550
Gamble, Matthew C., Stanton, Nebr. Rein-supporting ring for harness	447,014	Feb. 24	2524	626	54	1028
Gamble, Walter J. (See Slocum and Gamble.)						
Gamewell Auxiliary Fire Alarm Company. (See Milliken, George F., assignor.)						
Gamewell Fire Alarm Telegraph Company. (See Kirnan, William H., assignor.)						
Gamgee, John, London, England. Steam-boiler	459,225	Sept. 8	1067	259	56	1279
Gemmell, Thomas, London, England. Amalgamating apparatus	446,706	Feb. 17	1952	486 487	54	911
Gammon, George C., Pawtucket, R. I. Electric cut-out	447,676	Mar. 3	640	159	54	1239
Gammon, James, Pittsburg, Pa. Burner for burning gaseous fuel	460,334	Sept. 29	2818	702	56	1638
Gammon, Samuel W. (See Ingraham, Charles T., assignor.)						
Gamon, Thomas, Philadelphia, Pa. Brick-kiln	445,595	Feb. 3	119	30	54	534
Ganderton, George. (See Perkins and Ganderton.)						
Gandy, Frederick, Fernbank, Ohio. Pipe-mold	456,141	July 21	1327	351	56	271
Gandy, James P. (See Clouse, Noah, assignor.)						
Gandy, Larkin B., Nettleton, Miss. Wire-fence machine	462,898	Nov. 10	1084	282	57	770
Gang, William E., Cincinnati, Ohio. Drill-press	462,309	Nov. 3	149	38	57	579
Gannane, Thomas. (See Graham and Gannane.)						
Gano, James W., Phillipston, Pa. Harness-tug	458,570	Sept. 1	36	7	56	1072
Ganon, Henry F., Peoria, Ill. Wheel-guard for vehicles	458,159	Aug. 25	2003	519	56	935
Gans, Leo, assignor to L. Cassella & Co., Frankfurt, Germany. Amido-naphthol-monosulphonic acid	454,645	June 23	2234		55	1594
Gantz, Fred. M., et al. (See Bliss, Henry S., assignor.)						
Gantz, Jacob S., et al. (See Bliss, Henry S., assignor.)						
Garben, Adolph F. C., Hoboken, N. J. Educational appliance	448,019	Mar. 10	1236	314	54	1359
Garbrance, George C., Watervliet, N. Y. Basket-cover	464,686	Dec. 8	1050	262	57	1344
Garcia, Joseph, Paterson, N. J. Truss-pad	449,473	Mar. 31	3599	906	54	1834
Gard, George H., and G. C. Shoolridge, Elkhart, Ill. Check-row planter	457,113	Aug. 4	277	72	56	586
Garden City Filler Company. (See Page, Levi H., assignor.)						
Gardner, Arthur, Terrace, Utah Ter. Snow-plow	446,286	Feb. 10	1295	317	54	768
Gardner, George E., et al. (See Morden, William S., assignor.)						
Gardner, Joseph B., Nyack, N. Y. Obtaining fluids for primary batteries	460,277	Sept. 29	2730		56	1621
Gardner, Joseph B., Nyack, assignor to American Electric Exercise Machine Company, New York, N. Y. Electrical exercising-machine	444,881	Jan. 20	1451	377	54	300
Gardner, Thomas W., Worcester, Mass. Knife for turning irregular forms	454,041	June 16	1295	338	55	1411
Gardner, Anson. (See Hubbell, Algernon S., assignor.)						
Gardner, Daniel R., Glasgow, Scotland. Gas-lamp	450,931	Apr. 21	1984	487	55	401
Gardner, Edward V., London, England. Treating white lead	448,516	Mar. 17	2032	508 509	54	1523
Gardner, Frederick N., Beloit, Wis., assignor to C. H. Besly, Chicago, Ill. Drill-chuck	463,331	Nov. 17	1769	463	57	909
Gardner, Fulton, assignor to himself and A. M. Butz, Chicago, Ill. Apparatus for boring wells	455,037	June 30	2917	741 742	55	1731
Gardner, George C., Hinsdale, Ill. Sash-balance	456,948	Aug. 4	48	11	56	541
Gardner, George C., Hinsdale, Ill. Sash-balance	456,949	Aug. 4	48	11	56	541
Gardner, James C., Chicago, Ill. Step-ladder	448,648	Mar. 24	2260	567	54	1573
Gardner, James P. (See Gardner, Richard M., assignor.)						
Gardner, James P., Chicago, Ill. Sash-cord fastener	460,859	Oct. 6	496	127	57	98
Gardner, Jefferson M., Nashville, Tenn. Machine for bolting and cleaning cotton	458,339	Aug. 25	2313	565	56	993
Gardner, Jefferson M., Nashville, assignor of one-half to C. C. Glover, Memphis, Tenn. Machine for delinting cotton-seed	451,868	May 5	637	159 160	55	700
Gardner, Jessie L., St. Joseph, Mo. Hand appliance for operating sewing machines	461,803	Oct. 20	2058	507	57	407
Gardner, Joanna. (See Gardner, William, assignor.)						
Gardner, John, Manchester, England. Type-writing machine	463,859	Nov. 24	2611	679 680 681	57	1080
Gardner, John, Manchester, England. Type-writing machine	463,860	Nov. 24	2617	681 682	57	1080
Gardner, John, assignor to Winchester Repeating Arms Company, New Haven, Conn. Paper-shell cartridge	450,454	Apr. 14	1227	300	55	240
Gardner, John H., Providence, R. I. Cooker	460,860	Oct. 6	497	127	57	98
Gardner, John H., Dalton, Ga. Hay-press	463,662	Nov. 24	2310	606	57	1023
Gardner, Levi S., assignor of one-fourth to E. E. Harvey, Detroit, Mich. Voting-machine	458,805	Sept. 1	383	92	56	1139
Gardner, Marshall, assignor to T. H. Ball and J. Stone, Aurora, and S. Florsheim, Chicago, Ill. Sewing-machine	447,306	Mar. 3	32	8, 9	54	1125
Gardner, Marshall, assignor to T. H. Ball and J. Stone, Aurora, and S. Florsheim, Chicago, Ill. Sewing-machine	447,307	Mar. 3	35	9, 10	54	1124
Gardner, Marshall, assignor to T. H. Ball and J. Stone, Aurora, and S. Florsheim, Chicago, Ill. Feeding mechanism for sewing-machines	447,401	Mar. 3	208	54, 55	54	1157
Gardner, Marshall, assignor to T. H. Ball and J. Stone, Aurora, and S. Florsheim, Chicago, Ill. Sewing-machine	447,402	Mar. 3	211	55, 56	54	1157
Gardner, Parris W., Frost, Tex. Chimney-cowl	458,894	Sept. 1	545	132	56	1170
Gardner, Richard M., assignor to J. P. Gardner, Chicago, Ill. Sash-balance	450,667	Apr. 21	1594	363	55	327
Gardner, Watts. (See Pawlowski, Honoré K. de, assignor.)						
Gardner, William, New York, N. Y. Curve-scriber	450,455	Apr. 14	1228	300	55	241
Gardner, William, New York, N. Y. Roll-paper holder	462,310	Nov. 3	150	38	57	579
Gardner, William, assignor to J. Gardner, New York, N. Y. Baby-carriage	447,606	Mar. 3	546	135	54	1220
Gardner, William, assignor to Frost Veneer Seating Company, New York, N. Y. Adjustable can	453,592	June 2	646	160	55	1270
Garfield, Joel, Worcester, Mass. Pitman-head	445,775	Feb. 3	434	108	54	597
Garford, Arthur L., Elyria, Ohio. Safety bicycle	457,080	Aug. 4	237	61	56	578
Garford, Arthur L., Elyria, Ohio. Velocipede	457,435	Aug. 11	846	219	56	698
Gariepy, Téléphone, Montreal, Canada. Shuttle-driving mechanism for sewing-machines	456,619	July 28	2110	557	56	428
Garl, Manias, Canton, Ohio. Annunciator	455,316	July 7	28	7	56	8
Garland, Charles F., Chelsea, assignor of one-half to J. J. Quigley, East Boston, Mass. Steam-boiler	447,308	Mar. 3	41	11	54	1125
Garland, Charles F., assignor to A. H. Davis, Chelsea, Mass. Knob-spindle fastener	460,789	Oct. 6	407	99	57	80

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Garland, Charles F., Chelsea, assignor to J. J. Quigley, East Boston, Mass. Shutter-worker.	465,257	Dec. 15	1991	509	57	1532
Garland, Frank M., New Haven, Conn. Steam-engine.	448,917	Mar. 24	2680	674	54	1654
Garland, Frank M., New Haven, Conn. Steam dynamo-electric machine.	463,121	Nov. 10	1437	{ 371 372 }	57	839
Garland, Frank M., assignor of two-thirds to N. W. and J. E. Hubinger, New Haven, Conn. System of electric lighting.	462,311	Nov. 3	151	38	57	579
Garland, Harry W. (See Wells and Garland.) (Reissue.)						
Garland, Michael, Bay City, Mich. Roundabout.	461,629	Oct. 20	1773	437	57	353
Garland, Michael, Bay City, Mich. Box-board machine.	462,545	Nov. 3	510	124	57	648
Garland, Milton H., Harrisburg, Pa. Filling-can.	454,614	June 23	2187	564	55	1526
Garland, Nathan M., assignor of one-half to C. Wise, New York, N. Y. Electric-arc lamp.	458,386	Aug. 25	2392	583	56	1007
Garland, Nathan M., assignor of one-half to C. Wise, New York, N. Y. Electric-arc lamp.	458,387	Aug. 25	2394	584	56	1008
Garland, Nathan M., assignor of one-half to C. Wise, New York, N. Y. Electric-arc lamp.	458,388	Aug. 25	2395	584	56	1008
Garland, Nathan M., Boston, Mass., assignor of one-half to C. Wise, New York, N. Y. Electric-arc lamp.	458,389	Aug. 25	2397	584	56	1009
Garland, William H., assignor of three-fourths to J. Nicol, Somerville, J. W. Brine, and G. A. Lloyd, Arlington, Mass. Pipe-cutting machine.	445,138	Jan. 20	1860	482	54	379
Garlock, Edward C., et al. (See Gale, Cowles, and Davies, assignors.)						
Garlock, William H., Seattle, Wash. Car-coupling.	459,250	Sept. 8	1104	269	56	1287
Garneau, James W., St. Louis, Mo. Account-book.	445,313	Jan. 27	2135	{ 551 552 }	54	442
Garner, George W. (See MacLachlan, John W., assignor.)						
Garner, John A. (See Finn and Garner.)						
Garner, John H., Kingwood, W. Va. Hoe.	456,142	July 21	1328	352	56	271
Garner, John H., Kingwood, W. Va. Horse-detacher.	457,346	Aug. 11	708	181	56	670
Garner, John H., Kingwood, W. Va. Horse-detacher.	453,902	June 9	1103	{ 288 289 }	55	1365
Garner, William J., and T. Connaughton, Latourell Falls, Oreg. Plumb and level.						
Garner, William R., assignor of two-thirds to J. T. Tongelsen and J. Castberg, Galveston, Tex. Exhibitor.	461,869	Oct. 27	2162	532	57	436
Garnett, John, et al. (See Elliott, Hiram N., assignor.)						
Garono, Henry. (See McCarthy, William, assignor.)						
Garrard, Samuel C., et al. (See Klausner, William C., assignor.)						
Garrard, William E. (See Moore and Garrard.)						
Garraux, Frederick. (See Winship and Garraux.)						
Garretson, Joel G., Buffalo, N. Y. Ink-well.	448,423	Mar. 17	1898	476	54	1498
Garretson, Oliver S., Buffalo, N. Y. School furniture.	444,630	Jan. 13	1011	263	54	209
Garretson, Thomas B., and W. R. Thatcher, Oskaloosa, Iowa. Ice-cream freezer.	462,696	Nov. 10	757	{ 197 198 }	57	705
Garretson, Wolf, Cleveland, Ohio. Machine for trimming and branding cigars.	449,260	Mar. 31	3210	810	54	1764
Garrett, Ephraim M. (See Garrett, William J. and E. M.)						
Garrett, Henry, Dallas, Tex. Till-alarm.	459,442	Sept. 15	1416	355	56	1357
Garrett, James B., Pittsburg, Tex. Wagon-brake.	458,280	Aug. 25	2222	545	56	975
Garrett, James W., assignor of one-half to C. F. Johnson, Casey, Ill. Wagon-jack.	444,347	Jan. 6	570	146	54	113
Garrett, John W., Jr., Spartanburg, S. C. Hydraulic motor.	459,280	Sept. 8	1150	281	56	1297
Garrett, Lincoln B. (See Bachelder and Garrett.)						
Garrett, Mary A., administratrix. (See Brown and Garrett.)						
Garrett, Nathan L., Reese's Mill, Ind. Incubator.	450,010	Apr. 7	537	134	55	104
Garrett, William, Tweed, Canada. Machine for aerating milk.	458,895	Sept. 1	546	133	56	1170
Garrett, William J. and E. M., Tedrow, Ohio. Wire-stretcher.	461,545	Oct. 20	1638	400	57	328
Garrett, William T. (See Brown and Garrett.)						
Garrigues, Harry B., Massillon, Ohio. Mold for plastic materials.	457,192	Aug. 4	400	{ 104 105 }	56	609
Garrison, Calvin B., Charlestown, S. and J. G. Calhoun, Edinburg, Ohio. Road-cart.	455,198	June 30	3200	811	55	1786
Garrison, Charles O., Detroit, Mich. Washing-machine.	452,129	May 12	1108	282	55	791
Garrison, John G., Denver, Colo. Producing copper or other like printing-surfaces.	460,635	Oct. 6	163	41	57	35
Garrison, Theodore, Hazleton, Pa. Clothes-pin.	463,504	Nov. 17	2031	532	57	962
Garrison, William F., Brooklyn, N. Y. Valve of pumps for moving gaseous bodies.	454,646	June 23	2236	575	55	1594
Garrott, Joseph C., Brooklyn, N. Y. Umbrella-holder.	450,485	Apr. 14	1275	312	55	249
Garsed, Robert P., Norristown, Pa. Annunciator apparatus.	453,314	June 2	209	56	55	1187
Garsed, Robert P., Norristown, Pa. Annunciator-restoring device.	458,160	Aug. 25	2005	519	56	936
Garthwaite, William E., Bloomington, Wis. Gate.	464,280	Dec. 1	439	105	57	1218
Garthland, Francis X., Philadelphia, Pa. Coupling for electric wires.	463,420	Nov. 17	1919	501	57	939
Garlan, John A., et al. (See Robison, Charles W. and S. D., assignors.)						
Gärtner, Albert F., and J. C. Harris, Savannah, Ga. Sectional shade for incandescent electric lights.	452,638	May 19	1937	486	55	956
Gärtner, Albert F., and J. C. Harris, Savannah, Ga. Shade for incandescent electric lights.	452,701	May 19	2029	508	55	975
Gartner, John P. (See Entrekin, Borgs, and Gartner.)						
Garvelek, Julius, Chicago, Ill. Cutting-machine.	461,159	Oct. 13	933	242	57	186
Garvin Machine Company. (See Sjöberg, Carl J. A., assignor.)						
Garvin, W. P. (See Anderson, Henry C., assignor.)						
Gary, John S., Bellevue, Tex. Fastener for fish-plates for rails.	449,115	Mar. 31	2986	754	54	1722
Gas-Motoren-Fabrik-Deutz. (See Schumm, Hermann, assignor.)						
Gaskell, James, Burslem, England. Cranc for lifting weights.	449,529	Mar. 31	3674	923	54	1849
Gaskill, Daniel W., Little Rock, Ark. Sash-holder.	461,167	Oct. 13	946	244	57	188
Gassen, Paul. (See Weises and Gassen.)						
Gasser, Sanford, Trout Creek, Mich. Cultivator.	464,561	Dec. 8	850	210	57	1306
Gassett, Arthur L., Cleveland, Ohio. Capodastro for guitars.	449,216	Mar. 31	3140	792	54	1750
Gasteiger, Johann, Vienna, Austria-Hungary. Steam-boiler or other furnace.	448,808	Mar. 24	2513	{ 629 630 }	54	1632
Gaston, Albert A., Charlotte, N. C. Shelf for stoves.	446,115	Feb. 10	985	242	54	711
Gaston, Herbert. (See McMahon, Robert, assignor.)						
Gaston, James E., Sparta, Ill. Electric-arc lamp.	463,035	Nov. 10	1285	{ 333 334 }	57	809
Gatchell, Charles H., assignor of one-half to A. J. Gregory, Fredericton, Canada. Vise or clamp.	452,639	May 19	1937	486	55	957
Gatchell, Charles H., assignor of one-half to A. J. Gregory, Fredericton, Canada. Adjustable support for telephones.	465,778	Dec. 22	2822	723	57	1702
Gates, Carroll E., Oakland, Cal. Fruit-crate.	463,111	Nov. 10	1418	{ 366 367 }	57	836
Gates, Carroll E., Oakland, Cal. Basket.	463,964	Nov. 24	2776	720	57	1111
Gates, Ethan A., Del Norte, assignor of one-half to J. B. Moomaw, Alamosa, Colo. Valve for cornets.	455,562	July 7	426	114	56	82
Gates, Frank H., assignor to Otis Company, Ware, Mass. Circular-knitting machine.	448,954	Mar. 24	2734	689	54	1664
Gates, George B., Fairport, N. Y. Adding-machine.	448,221	Mar. 17	1551	396	54	1431

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Gates, George S., Athol, Mass. Lamp-burner attachment	451,555	May 5	167	40	55	611
Gates, George W., Macedon, N. Y. Grain-drill	459,121	Sept. 8	911	218	56	1250
Gates Iron Works. (See Gates, Ryerson D., assignor.)						
Gates, Lewis A. (See Howe and Gates.)						
Gates, Lewis A., San Francisco, assignor of one-half to H. J. Postel, Sacramento, Cal. Adjustable lettering device	445,750	Feb. 3	388	98	54	589
Gates, Ryerson D., Chicago, Ill. Stone crusher and pulverizer	456,304	July 21	1587	420	56	320
Gates, Ryerson D., assignor to Gates Iron Works, Chicago, Ill. Concentrating apparatus	451,926	May 12	748	188	55	727
Gates, Waldo L., Springfield, assignor to F. A. Warren, Wilbraham, F. W. Buffington, Springfield, Mass., and Electric Novelty Advertising Company, of New Jersey. Circuit-connector for electric signaling apparatus	461,075	Oct. 13	819	210	57	164
Gates, Waldo L., Springfield, assignor to F. A. Warren, Wilbraham, F. W. Buffington, Springfield, Mass., and Electric Novelty Advertising Company, of New Jersey. Electric parlor-game	461,076	Oct. 13	821	{ 210 211 }	{ 57 57 }	165
Gates, William H., assignor of one-half to A. C. Wright, Worcester, Mass. Universal automatic chuck	461,870	Oct. 27	2163	533	57	437
Gates, William H., and F. C. Welsh, Windsor, Canada. Brush	450,668	Apr. 21	1595	383	55	328
Gathmann, Louis, Chicago, Ill. Producing rain-fall	462,795	Nov. 10	912	.....	57	736
Gathmann, Louis, assignor to Gathmann Ordnance Company, Chicago, Ill. Loading ordnance	445,399	Jan. 27	2260	587	54	467
Gathmann Ordnance Company. (See Gathmann, Louis, assignor.)						
Gathright, Albert P., Meridian, Miss. Motor	455,459	July 7	253	64	56	51
Gathright, Josiah B., Louisville, Ky. Type-writing machine	452,268	May 12	1329	332	55	833
Gatley, Edward J., assignor to E. H. Walworth, Rome, N. Y. Electric-wire connection	450,581	Apr. 14	1397	345	55	216
Gatling, Richard J., Hartford, Conn. Making ordnance	453,833	June 9	1018	{ 265 266 118 119 }	{ 55 55 54 54 }	1349
Gatling, Robert B., Hartford, Conn. Spindle file or binder	447,565	Mar. 3	483	{ 118 119 }	{ 54 54 }	1208
Gatti, Tony C., assignor of one-half to J. W. Stewart, Moss Point, Miss. Combined bolt-puller and jack-screw	452,752	May 19	2119	533	55	991
Gaul, David, Denver, Colo. Refrigerator	447,403	Mar. 3	215	56, 57	54	1158
Gaul, William F., Myersdale, Pa., assignor of one-half to L. T. Derousse, Camden, N. J. Ballot-box	455,685	July 7	621	{ 164 165 }	{ 56 56 }	121
Gault, Alexander, Medford, Minn. Artificial limb	464,356	Dec. 1	553	135	57	1239
Gault, William H. (See Penwell and Gault.)						
Gaunt, Thomas, Brooklyn, N. Y. Evaporating apparatus	445,776	Feb. 3	436	108	54	597
Gaunt, Thomas, Brooklyn, N. Y. Multiple-effect evaporating apparatus	447,816	Mar. 10	890	{ 222 223 }	{ 54 54 }	1293
Gaunt, Thomas, Brooklyn, N. Y. Evaporating apparatus	447,817	Mar. 10	892	223	54	1294
Gavi, Antoine, Marseilles, France. Tool for setting diamonds within bezels	460,239	Sept. 29	2661	663	56	1608
Gawley, Hector, Le Roy, Mich. Set-works for saw-mills	451,476	May 5	47	12	55	588
Gay, William A., Corry, Pa. Bill-file	462,431	Nov. 3	345	85	57	616
Gay, William A., Corry, Pa. Musical toy	464,863	Dec. 8	1314	329	57	1395
Gayley, James, Braddock, Pa. Blast-furnace lining	463,146	Nov. 17	1476	.....	57	854
Gayley, James, Braddock, Pa. Blast-furnace lining	463,147	Nov. 17	1477	.....	57	855
Gayley, James, Braddock, Pa. Bosh-plate for furnaces	463,663	Nov. 24	2312	607	57	1023
Gaylord, Charles L. (See Schreiber, Frederick, assignor.)						
Gayman, George G. and S. B., Racine, Pa. Veterinary remedy	459,178	Sept. 8	1000	.....	56	1266
Gayman, Samuel B. (See Gayman, George G. and S. B.)						
Gaynor Electric Company. (See Gaynor, Thomas F., assignor.)						
Gaynor, Thomas F., assignor to Gaynor Electric Company, Louisville, Ky. Electro-mechanical indicator for fire-alarm telegraphs	445,991	Feb. 10	789	{ 192 193 564 565 }	{ 54 54 55 55 }	676
Gaynor, Thomas F., assignor to Gaynor Electric Company, Louisville, Ky. Electro-mechanical gong-striking machine	451,121	Apr. 28	2279	{ 564 565 }	{ 55 55 }	467
Gear, Alfred J., London, England. Shaded dental rubber	448,795	Mar. 24	2496	624	54	1619
Gearhart, James F., Devon, Kans. Cider press and mill	447,677	Mar. 3	641	{ 159 160 }	{ 54 54 }	1239
Gearhart, Joseph E., Clearfield, Pa. Circular-knitting machine	457,643	Aug. 11	1170	300	56	760
Gearing, Charles M., Pittsburg, Pa. Hydrocarbon-furnace	458,390	Aug. 25	2399	584	56	1009
Geary, Thomas F., Brooklyn, N. Y., assignor to J. Wetter, Memphis, Tenn. Consecutive-numbering head	461,408	Oct. 13	1358	342	57	471
Geddes, James, Waterbury, Conn. Micrometer depth-gage	459,107	Sept. 8	890	213	56	1246
Geddes, Joseph, Rochester, N. Y. Hot-air register and ventilator	465,993	Dec. 29	3202	{ 816 817 }	{ 57 57 }	1783
Gedeohn, Jacob, Avon Lake, Ohio. Cultivator	460,240	Sept. 29	2662	663	56	1608
Gedeon, John. (See Kundtz and Gedeon.)						
Gedge, Burton H., Covington, Ky. Wheel	444,430	Jan. 13	704	184	54	147
Gedge, Burton H., Covington, Ky. Machine for polishing, cleaning, and packing wire nails	458,571	Sept. 1	37	8	56	1073
Gedge, Burton H., Anderson, Ind. Machine for coiling wire rods	458,572	Sept. 1	39	8	56	1073
Gedge, Burton H., Anderson, Ind. Wheel	458,573	Sept. 1	40	8	56	1073
Gee, Charles E. (See Putnam, Perry, assignor.)						
Gee, Edwin C., Bayonne, N. J., assignor of one-half to A. P. Fisher, New York, N. Y. Watchman's time-recorder	451,666	May 5	341	83, 84	55	643
Gee, Joshua N., Pleasant Grove, Va. Surveying-instrument	445,886	Feb. 3	611	151	54	632
Geesaman, John E., Shippensburg, Pa. Game apparatus	458,451	Aug. 25	2490	606	56	1026
Gefvert, Anders G., Philadelphia, Pa. Surgical foot-supporter	454,342	June 16	1735	452	55	1496
Gelman, Enos S., and F. Yeakel, Bally, Pa. Thill-coupling and thill-support	462,860	Nov. 10	1020	264	57	757
Gehr, S. Whipple, et al. (See Holson, Albert B., assignor.)						
Gehre, Max, Rath, Germany. Apparatus for determining the amount of water in steam	465,321	Dec. 15	2091	533	57	1551
Gehrt, Albert A. (See Brown and Gehrt.)						
Gehrwald, Adolph, St. Louis, Mo. Window-scaffold	447,309	Mar. 3	43	11	54	1125
Geiger, Charles F., assignor to John Church Company, Cincinnati, Ohio. Guitar	454,905	June 30	2657	681	55	1682
Geiger, George G., Peoria, Ill. Car-door	449,155	Mar. 31	3044	769	54	1732
Geiger, George L., Philadelphia, Pa. Soap-cutter	461,672	Oct. 20	1838	454	57	365
Geiger, Georg K., et al. (See Cross, Jerome L., assignor.)						
Geiger, Georg K., W. D. McKenzie, and G. L. Cross, Springfield, Mass. Smoke-consuming furnace	453,805	June 9	925	256	55	1342
Geiger, Harry M., assignor of one-half to J. M. Cassil, Springfield, Ohio. Poll-book and tally-sheet	450,582	Apr. 14	1399	345	55	276
Geiger, John J., and L. Knapp, Clyde, Ohio. Roofing	453,470	June 2	465	120	55	1236
Geiger, Uriah C. (See Geiger, William D. and U. C.)						
Geiger, William D. and U. C., Valdosta, Ga. Combined stalk puller and cutter	453,634	June 9	723	186	55	1293

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Geigy & Co., John R. (See Ris, Christopher, assignor.)						
Geiner, Christopher S., <i>et al.</i> (See Machalnp, Adolph, assignor.)						
Geisinger, Edwin J. (See Geisinger, Lycurgus A., assignor.)						
Geisinger, Lycurgus A., assignor to himself and E. J. Geisinger, Centre Valley, Pa. Set-screw	465,175	Dec. 15	1863	473	57	1508
Geisler, Theodore J. (See Freidenrich and Geisler.)						
Geiss, Christian. (See Niedringhaus and Geiss.)						
Gelatt, Wallace W., Chicago, Ill. Car-coupling	444,096	Jan. 6	180	45, 46	54	38
Gelusha, Samuel J., Starkville, N. Y. Sand-band for vehicle-wheels	457,511	Aug. 11	972	248	56	721
Gem Hammock and Fly Net Company. (See Knoeruschild, Charles, assignor.)						
Gem Hammock and Fly Net Company. (See Kootz, William, assignor.)						
Gemmell, Robert, Brookline, Mass. Garment-supporter	455,710	July 7	670	177	56	129
Gendron Iron Wheel Company. (See Gendron, Joseph A., assignor.)						
Gendron Iron Wheel Company. (See Harriott, George, assignor.)						
Gendron, Joseph A., Toronto, Canada, assignor to Gendron Iron Wheel Company, Toledo, Ohio. Sleigh-runner	455,098	June 30	3026	769	55	1753
Gendron, Joseph A., Toronto, Canada, assignor to Gendron Iron Wheel Company, Toledo, Ohio. Wagon	455,941	July 14	1031	270	56	205
Genereaux, Alexander. (See Potter, William H., assignor.)						
Generelly, Fannie L. (See Lewis and Generelly.)						
Genese, David, and A. Schmidt, Baltimore, Md. Car-coupling	449,876	Apr. 7	347	88	55	69
Genett, Louis J., Marquette, Mich., assignor of three-fourths to M. L. Rothschild, Chicago, Ill., and L. Newberger, Marquette, Mich. Air-compressing pump	459,685	Sept. 15	1811	455	56	1431
Geneva Cartage Company. (See Morrell and Eddy, assignors.)						
Geneva Optical Company. (See Brayton, James T., assignor.)						
Geneva Optical Company. (See Smith, Andrew L., assignor.)						
Geng, Mathias, Cologne, Prussia, assignor to Gebrüder Hilgenberg, Essen on the Ruhr, Germany. Railway-chair	458,230	Aug. 25	2126	551	56	958
Genge, Rudolf. (See Sigmond and Genge.)						
Gennert, Gustav, <i>et al.</i> (See Connon, John R., assignor.)						
Gennert, Morris, <i>et al.</i> (See Connon, John R., assignor.)						
Gent, Joseph F., Columbus, Ind. Macaroni	466,230	Dec. 29	3566		57	1854
Genty, Lucien, Tours, France. Hot-air motor-engine	461,930	Oct. 27	2269	{ 56 562 168 169 }	{ 57 55 }	{ 458 130 }
George, Albert F., Kansas City, assignor of one-half to J. W. George, G. W. Edens, J. M. Black, W. W. Haeley, and B. L. Evans, Cassville, Mo. Automatic brake for vehicles	450,100	Apr. 7	666	{ 168 169 }	{ 55 }	{ 130 }
George Car Coupler Company. (See George, Marion N., assignor.)						
George, Edgar J., Joliet, Ill. Dental plugger	445,717	Feb. 3	332	87	54	578
George, Elias, Cherry Ridge, La. Cultivator	461,077	Oct. 13	823	{ 211 212 }	{ 57 }	{ 165 }
George F. Blake Manufacturing Company. (See Hall, Albert F., assignor.)						
George, J. W., <i>et al.</i> (See George, Albert F., assignor.)						
George L. Thompson Manufacturing Company. (See Thompson, George L., assignor.)						
George, Marion N., Birmingham, Ala., assignor to George Car Coupler Company. Car-coupling	458,896	Sept. 1	547	133	56	1170
George, S. H. (See Scates, George R., assignor.)						
Georgia, Burton B., Croton, N. Y. Feed-trough	462,251	Nov. 3	47	12	57	561
Gerald, Amos F., Fairfield, Me. Sewing-machine cabinet	446,581	Feb. 17	1761	434	54	874
Gérard, John, assignor to Landers, Frary & Clark, New Britain, Conn. Spring-scale	459,108	Sept. 8	891	214	56	1246
Gerard, John J., Minneapolis, Minn., assignor to E. P. Allis Company, Milwaukee, Wis. Dust-collector	456,810	July 28	2426	640	56	487
Gerbel, Thomas J. (See Ging, Samuel, assignor.)						
Gerbel, Wilhelm, Rorschach, Switzerland. Manufacturing sparkling wines	463,421	Nov. 17	1919	501	57	939
Gerber, George J., Chicago, Ill., assignor, by mesne assignments, to Steam Gauge and Lantern Company, Syracuse, and R. E. Dietz Company, New York, N. Y. Tubular lantern	445,171	Jan. 27	1922	497	54	400
Gerber, Jean B., San Francisco, Cal. Hippodrome aerial railway	461,102	Oct. 13	855	220	57	172
Gerber, Mahlon A., assignor of one-half to W. Bertolet, Mahanoy Plane, Pa. Car-signal	463,036	Nov. 10	1288	334	57	810
Gerdes, August. (See Thoens and Gerdes.)						
Gerdum, Gregory, West Troy, N. Y. Breech-loading ordnance	451,241	Apr. 28	2500	616	55	509
Gerdum, Albert, Cleveland, Ohio. Hydrostatic scale	459,001	Sept. 8	706	173	56	1211
Gerhard, Charles, Jersey City, N. J. Bengal-light compound	449,530	Mar. 31	3675		54	1849
Gericke, Adolph L., Sonoma, Cal. Farm-gate	458,248	Aug. 25	2151	527	56	963
Geries, Charles F., Dudleyville, Ill. Tree-protector	445,887	Feb. 3	613	151	54	632
Gerike, Albert T., Camden, N. J. Stable or street broom	449,440	Mar. 31	3543	893	54	1824
Gerke, F. E., <i>et al.</i> (See Godwin, Le Roy C., assignor.)						
Gerkey, William M., St. Louis, Mo. Button-setting machine	457,268	Aug. 4	541	{ 141 142 }	{ 56 }	{ 633 }
Gerlach, Constantin, Trachenberg, Germany. Pocket-knife	456,811	July 28	2428	640	56	487
Germain, Edward. (See Cowles, George C., assignor.)						
Gernshym, Max, Brooklyn, N. Y. Circular-knitting machine	462,546	Nov. 3	511	125	57	649
Gerold, Clifford A. (See Harte and Gerold.)						
Gerow, Edward S., Lafayette, assignor of one-half to C. L. Maxwell, Oakland, Cal. Cultivator and weed-cutter	463,352	Nov. 17	1806	472	57	916
Gerow, Joseph U., Brooklyn, N. Y. Opera-glass holder	449,531	Mar. 31	3675	924	54	1849
Gerrard, Clarence L., Columbus, Neb. Insulator	459,686	Sept. 15	1812	455	56	1432
Gerry, Elbridge H., <i>et al.</i> (See Kauffelt, John E., assignor.)						
Gerry, Perley A., Lawrence, Mass. Bolt having slotted head, squared neck, threaded shank, and screw-nut	452,640	May 19	1939	486	55	957
Gersch, Charles H., Chicago, Ill. Fence-post	450,385	Apr. 14	1127	376	55	222
Gersdorff, Augustus, Bridgeton, N. J. Funnel	453,798	June 9	977	254	55	1341
Gerstung, Henry, Jr., Elizabeth, N. J. Hose-clamp	447,818	Mar. 10	893	223	54	1294
Gertenbach, Louis P. J., and W. Hampp, Philadelphia, Pa. Coupling device for bicycle-riders	453,441	June 2	419	109	55	1226
Gesley Manufacturing Company. (See Fountain, Charles T., assignor.)						
Gessner, David, Worcester, Mass. Cloth-napping machine	462,697	Nov. 10	759	198	57	705
Getchell, Charles E., Palmer, assignor to G. Draper & Sons, Hopedale, Mass. Spindle-bearing for spinning and twisting machines	460,007	Sept. 22	2305	578	56	1532
Getz, Henry. (See Raby, Richard, assignor.)						
Geyer, George, Brooklyn, N. Y. Confectionery-machine	461,630	Oct. 20	1774	437	57	353
Geyer, Scott, Rockport, Mass. Dumping device for vessels	461,606	Oct. 20	1726	423	57	345
Ghegan, John J., Newark, N. J. Duplex telegraphy	459,930	Sept. 22	2203	553	56	1513
Giant Electric Motor Company. (See Chapman, William H., assignor.)						
Gibb, William E., Pyrgo Park, England. Time-signal	464,016	Dec. 1	21	6	57	1140

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Gibbins, James, assignor to Springfield Foundry Company, Springfield, Mass. Elevator-engine.....	454,012	June 9	1258	327	55	1396
Gibbins, James, assignor to Springfield Foundry Company, Springfield, Mass. Hoisting apparatus.....	456,763	July 28	2358	621	56	474
Gibbins, Richard. (See Hubbard and Gibbins.)						
Gibboney, John W., Lynn, Mass. Telephony.....	463,188	Nov. 17	1541	402	57	867
Gibbon, Catharine L. and T. H., New York, N. Y. Construction of railway-tracks.....	459,780	Sept. 22	1961	494	56	1467
Gibbon, Catharine L. and T. H., New York, N. Y. Compound rail for railway-tracks.....	459,781	Sept. 22	1963	495	56	1467
Gibbon, Thomas H. (See Gibbon, Catharine L. and T. H.)						
Gibbon, Thomas H., New York, N. Y., assignor to Duplex Street Railway Track Company, of West Virginia. Construction of railway-tracks.....	458,657	Sept. 1	174	41	56	1098
Gibbons, James. (See Noakes and Gibbons.)						
Gibbons, James, Jersey City, N. J. Vertical broiler.....	457,316	Aug. 4	621	{ 163 164 }	{ 56 56 }	649
Gibbons, James, Jersey City, N. J. Heating-furnace.....	458,324	Aug. 25	2285	559	56	987
Gibbons, James, Jersey City, N. J. Broiling apparatus.....	458,362	Aug. 25	2348	573	56	1000
Gibbons, James, assignor to Gibbons Superheating Company, Jersey City, N. J. Gas-heater.....	462,920	Nov. 10	1115	290	57	775
Gibbons, James, assignor to Gibbons Superheating Company, Jersey City, N. J. Cooking apparatus.....	462,921	Nov. 10	1119	{ 291 292 }	{ 57 57 }	776
Gibbons, James, assignor to Gibbons Superheating Company, Jersey City, N. J. Burner.....	462,922	Nov. 10	1130	292	57	778
Gibbons, James, assignor to Gibbons Superheating Company, Jersey City, N. J. Gas cooking-stove.....	462,923	Nov. 10	1132	293	57	778
Gibbons, John. (See Meneely and Gibbons.)						
Gibbons Superheating Company. (See Gibbons, James, assignor.)						
Gibbons Superheating Company. (See Noakes and Gibbons, assignors.)						
Gibbs, Artemus W., Blue Mound, Kans. Washing-machine.....	464,017	Dec. 1	22	6	57	1140
Gibbs, Daniel N. (See Allen and Gibbs.)						
Gibbs, Edward B., North Platte, Nebr., assignor of one-half to W. J. Harris, St. Louis, Mo. Spark-arrester for locomotives. (Reissue).....	11,146	Feb. 17	2168	539	54	956
Gibbs, Fletcher B., Chicago, Ill. Combined desk-blotter pad and calendar.....	450,741	Apr. 21	1686	408	55	345
Gibbs, George, Milwaukee, Wis. Electric-lighting system.....	449,474	Mar. 31	3600	907	54	1835
Gibbs, George, Milwaukee, Wis. Dumping-car.....	461,607	Oct. 20	1726	423	57	345
Gibbs, Gardner A., assignor of one-half to C. Gambee, Livonia, N. Y. Hay-rack.....	457,876	Aug. 18	1557	404	56	843
Gibbs, Jacob S., assignor to Perkins Electric Switch Manufacturing Company, Hartford, Conn. Cut-out.....	450,101	Apr. 7	668	169	55	131
Gibbs, James D., Jeffersonville, Ind. Cash-fare ticket for railways.....	453,442	June 2	420	110	55	1226
Gibbs, James E., Jonesborough, Tenn. Quilting-frame for sewing-machines.....	454,520	June 23	2016	523	55	1556
Gibbs, Lewis, assignor to Bucher & Gibbs Plow Company, Canton, Ohio. Gang-plow.....	447,724	Mar. 3	715	179	54	1253
Gibbs, Pierre L., Clinton, Iowa. Ore-leaching machine.....	456,323	July 21	1614	427	56	325
Gibbs, Robert R., Utica, N. Y. Die for cutting soles.....	460,774	Oct. 6	380	93	57	74
Gibbs, Wesley D., Los Angeles, Cal. Piano-action regulator.....	462,636	Nov. 3	652	165	57	677
Gibbs, William, Canton, Ohio. Digger.....	462,043	Oct. 27	2431	602	57	488
Gibbs, William H., assignor of one-half to J. R. Urech, Mendon, Ill. Whiffletree-hook.....	457,900	Aug. 18	1595	415	56	849
Gibford, Charles A., Newton, Iowa. Folding flower-stand.....	450,146	Apr. 14	735	184	55	149
Gibson, Albert A., Omaha, Nebr. Railway-switch stand.....	452,543	May 19	1784	449	55	926
Gibson, Arthur H. (See Bliss, Bradbury, and Gibson.)						
Gibson, Edward, Jersey City, N. J. Grate.....	464,185	Dec. 1	271	67	57	1186
Gibson, Edward H., St. Louis, Mo. Wood-working machine.....	445,446	Jan. 27	2321	{ 602 603 }	{ 54 54 }	479
Gibson, Jasper, London, England. Bell-buoy.....	448,222	Mar. 17	1553	{ 396 397 }	{ 54 54 }	1431
Gibson, Jasper, London, England. Bell-buoy.....	455,746	July 14	739	194	56	151
Gibson, John W., San Francisco, Cal. Dental engine.....	449,848	Apr. 7	314	81	55	62
Gibson, Myron B., Ukiah, Cal. Bicycle.....	464,357	Dec. 1	555	136	57	1239
Gibson, Robert W., New York, N. Y. Metallic furring and lathing.....	451,418	Apr. 28	2761	683	55	559
Gibson, Robert W., New York, N. Y. Surface conduit for buildings.....	463,830	Nov. 24	2558	666	57	1070
Gibson, Silvers P., Rays, Ohio. Hinge.....	454,343	June 16	1736	452	55	1496
Gibson, Susan, Arkansas City, Kans. Dumping-steamer.....	447,678	Mar. 3	644	160	54	1240
Gibson, Walter L., Turnbull, assignor of one-half to S. H. Ray, Titusville, Fla. Twine-cutter.....	456,812	July 28	2429	641	56	487
Gibson, William G., St. Stephens, Canada. Tea or coffee pot.....	450,932	Apr. 21	1985	487	55	401
Giddings, Albert J., Grand Rapids, Mich. Combined anti-rattler, nut-lock, and thill-support.....	445,527	Jan. 27	2445	637	54	501
Giddings, Erastus W., San Francisco, Cal. Wash-boiler.....	463,578	Nov. 17	2163	571	57	986
Gidley, Robert, Verbank Village, N. Y. Car-truck.....	455,460	July 7	255	64	56	51
Giebertmann, Rudolph, assignor of one-half to Bouton Foundry Company, Chicago, Ill. Filter-press.....	445,053	Jan. 20	1732	446	54	354
Giebertmann, Rudolph, assignor of one-half to Bouton Foundry Company, Chicago, Ill. Apparatus for separating gluten from slaughter-house washings.....	445,054	Jan. 20	1735	447	54	355
Giebertmann, Rudolph, assignor of one-half to Bouton Foundry Company, Chicago, Ill. Separating gluten from slaughter-house washings.....	445,055	Jan. 20	1736	447	54	355
Giering, George F. (See Jeffery and Giering.)						
Giese, August. (See Wessel, Ferdinand A., assignor.)						
Giese, James A., Chicago, Ill., assignor to Adams & Westlake Company, of Illinois. Latch.....	450,669	Apr. 21	1596	383	55	328
Giescke, Otto, Houston, Tex. Parcel-delivery apparatus.....	460,203	Sept. 29	2613	652	56	1598
Giesel, Fritz. (See Liebermann and Giesel.)						
Gieselmann, Henry. (See Flowers, Philip, assignor.)						
Giesler, Franklin B., assignor to Galland-Henning Pneumatic Malting Drum Manufacturing Company, Milwaukee, Wis. Attachment for malting-drums, beer-vats, and similar structures.....	461,187	Oct. 13	983	252	57	195
Giffard, Paul, Paris, France. Gas repeating-gun.....	452,882	May 26	2321	586	55	1039
Giffard, William, Salford, England. Car starter and brake.....	449,285	Mar. 31	3251	{ 824 825 }	{ 54 54 }	1771
Giffin, Andrew. (See Sargent, Richard, assignor.)						
Gifford, Alenza T., Hopedale, Mass. Milling-machine.....	458,325	Aug. 25	2290	560	56	988
Gifford, Benjamin D. (See Thatcher and Gifford.)						
Gifford, C. B., et al. (See Welch, James L., assignor.)						
Gifford, Ezra N., assignor to Chicago Railway Device Company, Chicago, Ill. Car-coupling.....	444,697	Jan. 13	1117	{ 288 289 }	{ 54 54 }	229
Gifford, Ezra N., assignor, by mesne assignments, to Columbia Car Coupler Company, Chicago, Ill. Car-coupling.....	457,154	Aug. 4	338	86, 87	56	598
Gifford, John, assignor to Gifford Manufacturing Company, Watertown, N. Y. Self-propelling sled.....	461,112	Oct. 13	866	223	57	174

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Gifford Manufacturing Company. (See Gifford, John, assignor.)						
Giglio, Giovanni, New York, N. Y. Eyeletting-machine.....	449,795	Apr. 7	239	60	55	48
Gilbert, De Witt C., Danbury, assignor of one-half to T. M. Trowbridge, Bridgeport, Conn.						
Instrument for removing black-heads.....	465,816	Dec. 22	2877	736	57	1713
Gilbert, Emerson A., Jamestown, N. Y. Frame for coating aristotype-paper.....	463,037	Nov. 10	1289	334	57	810
Gilbert, Frances M., Silver City, N. Mex. Ter. Bird-cage.....	459,396	Sept. 15	1345	337	56	1344
Gilbert, Frederick J. (See Murch, John H., assignor.)						
Gilbert, George M. (See Gilbert, James M., assignor.)						
Gilbert, Gideon L., Dayton, Ohio. Elevator.....	456,194	July 21	1408	373	56	287
Gilbert, Henry J., Saginaw, Mich. Separable pulley.....	451,038	Apr. 28	2167	535	55	444
Gilbert, Henry J., Saginaw, Mich. Clutch.....	453,324	June 2	224	58, 59	55	1190
Gilbert, Henry J., Saginaw, Mich. Drive-chain.....	454,993	June 30	2854	726	55	1720
Gilbert, Henry J., Saginaw, Mich. Separable pulley and constructing the same.....	455,875	July 14	933	245	56	188
Gilbert, Henry J., Saginaw, Mich. Separable wood pulley.....	455,876	July 14	933	245	56	188
Gilbert, James M., Putney, Vt., assignor of one-half to G. M. Gilbert, Sioux City, Iowa.						
Transposing key-board.....	447,641	Mar. 3	599	{ 147 148 }	{ 54 54 }	1231
Gilbert, Joshua J., assignor to O. H. Short & Co., Syracuse, N. Y. Vehicle.....	456,112	July 14	1275	335	56	252
Gilbert, Joshua J., assignor to O. H. Short & Co., Syracuse, N. Y. Vehicle.....	457,530	Aug. 11	998	{ 255 256 }	{ 56 56 }	727
Gilbert, Leon H. (See Hill, Louis A., assignor.)						
Gilbert, Truman H., Buffalo, N. Y., assignor of one-half to E. C. Strong. Oil and grease extractor.....	451,816	May 5	569	140	55	687
Gilcher, Henry J., Cleveland, Ohio. Wrench.....	456,143	July 21	1329	352	56	271
Gildemeister, Friedrich, Bielefeld, Germany. Drilling-machine.....	464,126	Dec. 1	175	43	57	1170
Gildemeyer, Charles A., Haddonfield, N. J. Bill or letter file.....	465,358	Dec. 15	1992	509	57	1532
Giles, Harvey A., Belle Fourche, S. D. Traction-increaser for locomotives.....	462,944	Nov. 10	1161	301	57	784
Giles, Isaac, New York, N. Y. Sash-fastener.....	447,404	Mar. 3	217	57	54	1138
Giles, John E., Hazleton, Pa. Electric-arc lamp.....	462,698	Nov. 10	762	198	57	706
Giles, Julian A., Watertown, N. Y. Work-holding chuck.....	463,332	Nov. 17	1770	463	57	910
Gillilan, Adam W., Eureka, Cal. Steam-boiler alarm.....	452,437	May 19	1613	401	55	896
Gillilan, Easington N., assignor to Johnston Car Seat Company, Chicago, Ill. Car-seat.....	448,424	Mar. 17	1898	477	54	1498
Gillilan, William, New Haven, Conn. Door spring and check.....	457,347	Aug. 11	709	182	56	670
Gillilan, William, Brooklyn, N. Y. Door-check.....	462,638	Nov. 3	656	166	57	677
Gilkey, Albert S., Burlington, Kans. Folding tongue for vehicles.....	463,274	Nov. 17	1679	438	57	893
Gill, Clark L., Madison, Wis. Folding bed.....	460,574	Oct. 6	50	12	57	11
Gill, Clark L., Madison, assignor of one-half to J. Toohey, Milwaukee, Wis. Billiard-button.....	451,039	Apr. 28	2169	536	55	444
Gill, James, assignor of one-half to J. Gill, Portland, Oreg. Device for operating steam-engine indicators.....	455,999	July 14	1122	294	56	221
Gill, John. (See Gill, James, assignor.)						
Gill, John E. (See Reardon, Charles B., assignor.)						
Gill, Leonard U., London, England. Guillotine paper-cutting machine.....	450,147	Apr. 14	736	{ 185 186 }	{ 55 55 }	150
Gill, Middleton S. (See Hansell and Gill.)						
Gill, Thomas, New York, N. Y. Advertising-vehicle.....	448,425	Mar. 17	1900	477	54	1499
Gill, William E. (See Wollensak and Gill.) (Reissue.)						
Gillard, Nathaniel, assignor to Curtis & Wheeler, Rochester, N. Y. Machine for softening leather.....	446,594	Feb. 17	1777	439	54	877
Gillespie, Chester. (See Gillespie, Nelson, assignor.)						
Gillespie, James E., New York, N. Y. Extension-ladder.....	456,651	July 28	2160	572	56	438
Gillespie, Lewis, assignor of one-half to McLeary & Fleming, San Antonio, Tex. Propeller for boats.....	451,731	May 5	439	106	55	662
Gillespie, Nelson, assignor of one-half to C. Gillespie, Hoosick Falls, N. Y. Blanket-muzzlele.....	457,193	Aug. 4	402	105	56	609
Gillespie, Richard S., New York, N. Y. Steam-whistle.....	451,040	Apr. 28	2170	536	55	444
Gillespie, Richard S., and H. James, New York, N. Y. Pipe-wrench.....	460,008	Sept. 22	2306	578	56	1532
Gillespie, Richard S., and H. James, New York, N. Y. Pipe-wrench.....	461,750	Oct. 20	1958	486	57	389
Gillespie, Robert. (See McComb, Hook, McComb, and Gillespie.)						
Gillet, Anna A. and G. L., Milwaukee, Wis. Garment-supporter.....	448,223	Mar. 17	1555	397	54	1432
Gillet, Dwight D. (See Cobb, Henry, assignor.)						
Gillet, Garland L. (See Gillett, Anna A. and G. L.)						
Gillet, Sylvanus M. (See Isbell and Gillett.)						
Gillette, Harleigh, Highland Park, Ill. Electric gate.....	444,825	Jan. 20	1325	{ 343 344 }	{ 54 54 }	276
Gillette, Harleigh, Highland Park, Ill. Electric gate.....	462,403	Nov. 3	303	75	57	608
Gillette, Horace L., Dayton, Ohio, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Screw-driver.....	462,252	Nov. 3	48	12	57	561
Gillette, Thurber J., Syracuse, N. Y. Spirit-level.....	457,992	Aug. 18	1753	460	56	879
Gillette, Wells, et al. (See May, Henry H., assignor.)						
Gillham, Nathaniel, Otwell, Ind. Fence construction.....	449,441	Mar. 31	3543	893	54	1824
Gillihan, James M. and T. J., Olathe, Kans. Preserving compound.....	460,261	Oct. 6	499	.....	57	99
Gillihan, Thomas J. (See Gillihan, James M. and T. J.)						
Gilliland, Ezra T., New York, N. Y. Dynamo-electric machine.....	461,240	Oct. 13	1084	274	57	216
Gilliland, James F., Adrian, Mich. Cutting-die for box-making machines.....	455,015	June 30	2877	731	55	1724
Gilliland, James F., Adrian, Mich. Box-making machine.....	463,861	Nov. 24	2621	682	57	1081
Gilliland, William E. (See Fraser, Gilliland, and Wilson.)						
Gillies, George. (See Parker, Henry, assignor.)						
Gillis, Arthur L., Mount Pleasant, Iowa. Chart for teaching addition.....	454,729	June 23	2354	604	55	1619
Gillis, Bosanquet W., Washington, D. C., assignor of one-half to M. C. Foss, Newport, N. H. Printer's take-marker or galley attachment.....	459,397	Sept. 15	1346	337	56	1344
Gillis, Charles W., Dayton, assignor of one-half to C. B. Funk, Collinsville, Ohio. Fodder-bruder.....	449,072	Mar. 24	2910	738	54	1699
Gillis, David, et al., executors. (See Russell, Hamlin G.)						
Gillmore, Harmon, assignor to A. J. Aker, St. Williams, J. L. Buck, A. Denton, E. H. Jeeves, and G. B. Killmaster, Port Rowan, Canada. Tube-scraper.....	452,938	May 26	2423	612	55	1059
Gilman, Charles C., Eldora, Iowa. Covering for steam and hot-water pipes.....	446,860	Feb. 24	2203	548	54	971
Gilman, Charles C., Eldora, Iowa. Underground railway-conduit.....	446,861	Feb. 24	2204	548	54	971
Gilman, Edward W., Madison, Wis. Telescopic satchel-harness.....	448,426	Mar. 17	1901	477	54	1499
Gilman, John L., assignor of one-half to J. A. T. Hull, Des Moines, Iowa. Slip, label, card, or letter file.....	460,862	Oct. 6	500	128	57	99
Gilman, Willard H., assignor of one-half to E. O. Bicknell, Boston, Mass. Machine for blacking and polishing boots or shoes.....	460,335	Sept. 29	2819	702	56	1638
Gilman, Willard H., assignor of one-half to E. O. Bicknell, Boston, Mass. Cash-register.....	461,673	Oct. 20	1839	{ 454 455 }	{ 57 57 }	366
Gilman, Willard H., assignor to A. W. Tice, Boston, R. S. Dodge and R. Nagle, Lynn, Mass. Cash-register.....	448,020	Mar. 10	1237	{ 314 315 }	{ 54 54 }	1360

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Gilman, Willard H., assignor to R. S. Dodge, A. W. Tice, Boston, and R. Nagle, Lynn, Mass. Cash-register	448,021	Mar. 10	1240	315	54	1360
Gilmer, Joseph. (See Matthews and Gilmer.)						
Gilmore, Elizabeth, Greencastle, Ind. Curtain-drier	461,608	Oct. 20	1728	424	57	345
Gilmore, Ira F., Bloomington, Ill. Musical instrument	451,667	May 5	343	84	55	644
Gilmore, Winfield S., New York, N. Y. Signaling apparatus	449,674	Apr. 7	43	10	55	10
Gilmour, George H., Ogden, assignor of one-half to J. D. Walker, Salt Lake City, Utah Ter. Gate	454,906	June 30	2658	681	55	1682
Gilpin, Arthington, et al. (See Phillips, William H., assignor.)						
Gilpin, Joseph F., and J. Elliot, Ansonia, Conn. Gas-furnace	448,955	Mar. 24	2736	690	54	1665
Gilson, John, Port Washington, Wis. Revolving chair	457,774	Aug. 18	1382	357	56	811
Gilson, Livingston, et al. (See Lang, Gustav, assignor.)						
Gimbel, Simon K., Vincennes, Ind. Combined paper-holder and cutting and printing device	456,330	July 21	1626	430	56	328
Ging, Samuel, assignor of one-half to T. J. Gerbel, Edgewood, Ill. Belt-fastener	451,041	Apr. 28	2171	536	55	445
Gingras, Timothy, Buffalo, N. Y. Axle-washer	444,218	Jan. 6	387	96	54	77
Gingras, Timothy, Buffalo, N. Y. Pulley	446,567	Feb. 17	1744	429	54	871
Gingrich, John, Aurora, Nebr. Car-coupling	459,398	Sept. 15	1347	337	56	1344
Gingrich, John H., Lebanon, Pa. Combined carpet and weather strip	463,148	Nov. 17	1478	383	57	855
Ginochio, Noel B., assignor of one-half to E. M. Greene, New York, N. Y. Magneto-electric signal device	447,045	Feb. 24	2525	626 } 627 }	54	1029
Ginter, William P., assignor of one-half to J. B. Fox, Hughesville, Pa. Meat-tenderer	448,482	Mar. 17	1991	499	54	1515
Gintzburg, Morris, assignor to S. Oppenheimer, Philadelphia, Pa. Suspender-buckle	462,547	Nov. 3	514	125	57	649
Gipe, Emanuel C., assignor of one-half to O. J. Ziegler, Freeport, Ill. Cash-carrier	465,471	Dec. 22	2333	599	57	1608
Giroud, Peter G., Brooklyn, N. Y., assignor of three-fifths to F. B. Colton, Newark, N. J. Automatic time-stamp	452,428	May 19	1594	396 } 397 }	55	893
Giroux, Joseph L., Jerome, Ariz. Ter. Ore-roasting furnace	453,769	June 9	931	241	55	1332
Gish, David W., San José, Cal. Bale-tie fastener	448,022	Mar. 10	1241	315	54	1360
Githens, George M., Brooklyn, N. Y. Rock-drill	457,348	Aug. 11	711	182	56	671
Githens, George M., Brooklyn, N. Y. Tool-holder	462,483	Nov. 3	415	101	57	629
Githens, John A. (See Parramore, Reddin W., assignor.)						
Githens, Joseph C., New York, N. Y. Nut-thread-cutting machine	456,324	July 21	1616	437 } 438 }	56	326
Gittings, James C., Baltimore, Md. Combined awning and window-blind	454,907	June 30	2659	681	55	1682
Givin, Samuel D. (See Jeffers, Harry L., assignor.)						
Giwits, Albert F. (See Giwits, William H., C. E., and A. F.)						
Giwits, Charlie E. (See Giwits, William H., C. E., and A. F.)						
Giwits, William H., C. E., and A. F., Lincoln, Nebr. Door-spring	462,699	Nov. 10	764	199	57	706
Gladding, Wilber E., Rantoul, Kans. Bale-tie machine	465,758	Dec. 22	2793	715	57	1696
Gladish, William J., Chattanooga, Tenn. Saw-mill set-works	466,443	Feb. 17	1556	382	54	833
Glafcke, Paul E., Cheyenne, Wyo. Dumping-car	465,759	Dec. 22	2796	716	57	1697
Glauzer, William, Dayton, Ohio. Clothes-drier	457,114	Aug. 4	278	72	56	586
Glaser, Charles, Baltimore, Md. Making phosphate of alumina	453,299	June 2	181	55	55	1182
Glaser, Charles, Baltimore, Md. Separating alumina from phosphates	453,300	June 2	182	55	55	1182
Glaser, Charles, assignor to American Phosphate and Chemical Company, Baltimore, Md. Making alkaline phosphates	446,815	Feb. 17	2121	.....	54	946
Glaser, Charles, assignor to American Phosphate and Chemical Company, Baltimore, Md. Making phosphoric acid	459,575	Sept. 15	1631	.....	56	1397
Glass, Kallmann, New York, N. Y. Bath-tub	445,314	Jan. 27	2136	552	54	442
Glassbrook, Myron, and N. Emmer, Williamston, Mich. Power-machine	446,862	Feb. 24	2205	548	54	971
Glatz, Joseph. (See Bornholdt, Adolph, assignor.)						
Glauber, Isaac N. and J. H., Cleveland, Ohio. Valve	459,201	Sept. 8	1030	251	56	1272
Glauber, Joseph H. (See Glauber, Isaac N. and J. H.)						
Glazier, Frank P. (See Strong, Preston W., assignor.)						
Glazier, George W., assignor of three-fourths to J. B. Rollins, Salem, and G. H. Allen, Lynn, Mass. Paper-box-setting-up machine	456,485	July 21	1884	498 } 499 }	56	376
Glazier, Luke E., North Haverhill, N. H. Stanchion	456,269	July 21	1527	406	56	309
Gleason, Byron H., Cauastota, N. Y. Bill-file	464,127	Dec. 1	176	43	57	1170
Gleason, Francis, Philadelphia, Pa. Tire for cycles	451,477	May 5	48	12	55	588
Gleason, Henri B., Oneida, N. Y. Water-motor	451,170	Apr. 28	2365	588	55	485
Gleason, James F., et al. (See Collett, Herbert E., assignor.)						
Gleason, William, Rochester, N. Y. Safety attachment for lathes	447,607	Mar. 3	548	135 } 136 }	54	1220
Glodhill, Walter, Clifton, Pa., assignor of one-half to J. Smethurst, St. Helen's, England. Nut-lock	448,183	Mar. 10	1473	376	54	1408
Glenn, Allen, Scranton City, Iowa. Stove-drum	451,375	Apr. 28	2691	668	55	546
Glen Cove Machine Company. (See Welch, James F., assignor.)						
Glenn, Edmund L., assignor to S. W. Evans, Jr., Philadelphia, Pa. Umbrella-runner	462,044	Oct. 27	2432	603	57	488
Glenn, John S., Chicago, Ill. Metallic ring packing	465,573	Dec. 22	2515	642	57	1642
Glennon, John. (See Krause and Glennon.)						
Glidden, Albert S., Lake Village, N. H. Curtain-fixture	446,675	Feb. 17	1903	472	54	902
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heel shaping or compressing machine	454,428	June 16	1880	491	55	1522
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Quarter-heating machine	454,429	June 16	1881	491	55	1522
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Rotary cutter for leather-trimming machines	459,348	Sept. 8	1259	310	56	1318
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Nail-assorting machine	464,196	Dec. 1	294	72, 73	57	1190
Glidden, Charles W., Lynn, and A. D. Elliott, Lawrence, assignors to J. W. Brooks, trustee, Cambridge, Mass. Heeling-machine	446,383	Feb. 10	1439	354 } 355 }	54	798
Glidden, Charles W., Lynn, and A. D. Elliott, Lawrence, assignors to J. W. Brooks, trustee, Cambridge, Mass. Heel nailing and trimming machine	457,462	Aug. 11	891	230	56	706
Glidden, Joseph F., De Kalb, Ill. Apparatus for forming and attaching fastenings to horse-collars	450,723	Apr. 21	1667	402	55	341
Glidden, Joseph F., De Kalb, Ill. Gate	457,491	Aug. 11	949	240	56	716
Glikson, Solomon, and A. Doeff, assignors of one-third to A. Golomb, Philadelphia, Pa. Box-fastener	459,703	Sept. 15	1839	463	56	1437
Globe Buttonhole Machine Company. (See Reed, James H., assignor.)						
Globe Buttonhole Machine Company. (See Reed and Dahl, assignors.)						
Globe Buttonhole Sewing Machine Company. (See Dahl, Charles A., assignor.)						
Globe Company. (See Carnahan, Charles M., assignor.)						
Globe Company. (See Dom, Alexander, assignor.)						
Globe Company. (See Yeiser, Henry C., assignor.)						
Globe Machine Works. (See Denn, Charles, assignor.)						
Glock, Gustav, Newark, N. J. Treating fabrics for ornamentation	459,066	Sept. 8	1818	198	56	1231

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Glockler, Charles A., Pittsburg, Pa. Latch.....	444,826	Jan. 20	1328	345	54	276
Glover, Almon B., Birmingham, Conn. Wire-nail machine.....	458,391	Aug. 25	2400	585	56	1009
Glover, Charles, New Britain, Conn. Manufacture of wardrobe-hooks.....	453,424	June 2	398	103	55	1222
Glover, Charles, assignor to P. & F. Corbin, New Britain, Conn. Coat and hat hook.....	447,510	Mar. 3	405	99	54	1194
Glover, Charles, assignor to P. & F. Corbin, New Britain, Conn. Manufacture of coat and hat hooks.....	448,294	Mar. 17	1556	397	54	1432
Glover, Charles, assignor to P. & F. Corbin, New Britain, Conn. Coat and hat hook.....	465,259	Dec. 15	1993	510	57	1533
Glover, Clement C. (See Gardner, Jefferson M., assignor.)						
Glover, Evelyn. (See Miller, Samuel, assignor.)						
Glover, Fred, D., Campbell, Minn. Car-ventilating window.....	456,561	July 28	2008	530	56	407
Glover, George T., Chicago, Ill. Traction-engine for making ice roads and hauling logs.....	455,394	July 7	154	39	56	33
Glover, George T., Chicago, Ill. Tractor for making ice roads and hauling logs.....	463,679	Nov. 24	2333	{ 612 613 }	{ 57 }	1027
Glover, Henry P. (See Cowell, Edward R. E., assignor.)						
Glover, Henry P. (See De Clements, Eldersley D., assignor.)						
Glover, Henry P. (See Goundry, John B., assignor.)						
Glover, John B. (See Porter and Glover.)						
Glover, John M. (See Lundstedt, Olof E., assignor.)						
Glover, John M. (See Mallonee, Joseph D., assignor.)						
Glover, John V. (See Moore, George B., assignor.)						
Gluck, James F. (See Pooley, Charles A., assignor.)						
Glünder, Wilhelm, Glatz, Germany. Apparatus for loading coal into vessels.....	451,323	Apr. 28	2625	{ 647 648 649 }	{ 55 }	533
Glunt, Samuel P., et al. (See Clark, Wesley, assignor.)						
Glynn, Michael F., Ashley, Pa. Checking and unchecking device.....	445,888	Feb. 3	614	151	54	632
Glynn, Thomas, Philadelphia, Pa. Coffee-pot.....	463,505	Nov. 17	2032	533	57	962
Goad, Thomas W., Denver, Colo. Geodetic altazimuth.....	459,455	Sept. 15	1437	361	56	1361
Goar, Joseph, Morristown, Minn. Well-auger.....	456,466	July 21	1887	499	56	377
Gobbe, Emile, Aniche, France. Furnace for glass-works.....	463,149	Nov. 17	1478	{ 383 384 }	{ 57 }	855
Gochey, Merrick J., et al. (See Chapel, Edward A., assignor.)						
Godcharles, Charles A., et al. (See Ettinger, Joel, assignor.)						
Godcharles, Charles D., et al. (See Ettinger, Joel, assignor.)						
Godcharles, Johnson B., et al. (See Ettinger, Joel, assignor.)						
Godcharles, Joseph W., et al. (See Ettinger, Joel, assignor.)						
Goddard, Andrew. (See Smith, Goddard, Higginbottom, and Mannock.)						
Goddard, Harry C., et al. (See Westaway, Walter C., assignor.)						
Goddard, John E. (See Park and Goddard.)						
Godden, Edward, and G. R. Whitehurst, Clarksburg, assignors to J. M. Thomas, Chillicothe, Ohio. Corn-planter.....	448,649	Mar. 24	2262	567	54	1574
Goddu, Louis, Winchester, assignor to McKay Metallic Fastening Association, Boston, Mass. Wire-rolling machine.....	451,001	Apr. 21	2113	521	55	426
Goddu, Louis, Winchester, assignor to J. W. Brooks, Cambridge, and F. F. Stanley, Swampscott, Mass., trustees. Horn for nailing-machines.....	456,113	July 14	1276	335	56	252
Goddu, Louis, Winchester, assignor to J. W. Brooks, Cambridge, and F. F. Stanley, Swampscott, Mass., trustees. Petroleum-burner.....	465,817	Dec. 22	2878	737	57	1714
Godefroy, Richard, Philadelphia, Pa. Rotary fan.....	450,148	Apr. 14	739	186	55	150
Godeke, Fred W., Evansville, Ind. Knockdown-table frame.....	456,377	July 21	1714	454	56	344
Godley, George F., Philadelphia, Pa. Car-axle box.....	451,195	Apr. 28	2427	600	55	494
Godley, George F., Philadelphia, Pa. Dust-shield for axle-boxes.....	451,196	Apr. 28	2428	600	55	494
Godman, Edward C., et al. (See Stewart, William A., assignor.)						
Godwin, Bryant, New York, N. Y. Printers' type.....	454,862	June 30	2573	661	55	1666
Godwin, Le Roy C., assignor of two-thirds to J. N. Hart and F. E. Gerke, Portsmouth, Va. Hat-holder.....	459,281	Sept. 8	1154	281	56	1297
Goe, Alice C., Stone Fort, Ill. Perch for cages.....	447,769	Mar. 10	803	199	54	1277
Goeb, John A., St. Louis, Mo. Gage for countersinks.....	455,199	June 30	3200	812	55	1787
Goebel, John. (See Decker and Goebel.)						
Goebel, John, and T. Griffin, Berlin Falls, N. H. Flower-pot shelf.....	461,078	Oct. 13	824	212	57	165
Goebels, Charles, Memphis, Tenn. Iron fence.....	465,074	Dec. 15	1685	429	57	1474
Goehde, Richard, Hanover, Germany. Cock for mixing gas and air.....	446,341	Feb. 10	1384	338	54	787
Goehring, George J. H., assignor to Cary Safe Company, Limited, Buffalo, N. Y. Time-lock.....	452,781	May 26	2159	{ 541 542 }	{ 55 }	1008
Goehring, Charles L. (See Van Houten, Frank H., assignor.)						
Goehring, Charles L., Allegheny, Pa. Rotary cutter-head.....	445,335	Jan. 27	2169	562	54	449
Goehring, Charles L., Allegheny, Pa. Molding-machine.....	450,788	Apr. 21	1764	{ 428 429 }	{ 55 }	359
Goehring, John R., assignor to H. and T. B. Belfield, Philadelphia, Pa. Check-valve.....	459,576	Sept. 15	1632	408	56	1397
Goenbel, William S., Geneseo, Ill. Cultivator.....	453,183	June 2	9	2, 3	55	1151
Goertz, August, Newark, N. J. Purse-frame.....	453,282	June 2	158	45	55	1178
Goertz, August, Newark, N. J. Purse-frame.....	453,283	June 2	159	45	55	1178
Goetting, George C. (See Watton, Fealdon E., assignor.)						
Goetting, Mary D. (See Jones, Frank D., assignor.)						
Goetz, George W., Milwaukee, Wis. Poke-hole for gas-producers.....	444,631	Jan. 13	1012	263	54	209
Goetz, George W., Pittsburg, Pa. Method of and apparatus for solidifying molten metal.....	447,511	Mar. 3	405	99	54	1194
Goetz, George W., and E. Roud, assignors to Fuel Gas and Manufacturing Company, Pittsburg, Pa. Gas-stove.....	464,457	Dec. 1	688	169	57	1266
Goetz, Victor J., assignor of one-half to W. C. Kidd and J. B. Suffern, Hillburn, N. Y. Switch-stand.....	463,038	Nov. 10	1290	335	57	810
Goewey, Charles T., St. Paul, Minn. Letter or bill file.....	459,687	Sept. 15	1814	456	56	1432
Goff, Moses A. (See Blackwood and Goff.)						
Goff, Samuel B., Camden, N. J. Axle-bearing.....	447,608	Mar. 3	550	136	54	1221
Goff, Samuel B., Camden, N. J. Water-motor.....	457,194	Aug. 4	403	105	56	609
Gohlke, Theodore, St. Louis, Mo. Blind-stop.....	448,517	Mar. 17	2035	509	54	1523
Gohn, William J., Danville, Ill. Cultivator.....	461,674	Oct. 20	1841	455	57	366
Gohring, William H., assignor of one-half to N. Luce, Binghamton, N. Y. Truck.....	460,470	Sept. 29	3015	753	56	1675
Golay, Charles. (See Dolorie and Golay.)						
Gold, Edward E. (See Balmore and Gold.)						
Gold, Edward E., New York, N. Y. Valve for steam-heating systems.....	450,767	Apr. 21	1728	418	55	353
Gold, Kaufman, New York, N. Y. Hatchway-door.....	457,026	Aug. 4	142	35	56	561
Goldbeck, Charles F., Philadelphia, Pa., assignor to Identity Indicator Company, Limited, of Pennsylvania. Identity-indicator.....	458,126	Aug. 18	1950	506	56	918
Goldbeck, Charles F., assignor to Identity Indicator Company, Limited, Philadelphia, Pa. Baggage-check.....	462,667	Nov. 3	692	175	57	684

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Goldberg, Louis. (See Vint and Goldberg.)						
Goldberg, Nehemiah, Philadelphia, Pa. Folding step-ladder.	444,276	Jan. 6	468	119	54	93
Goldberg, Nehemiah, Philadelphia, Pa. Step-ladder.	466,096	Dec. 29	3362	858	57	1815
Golden, Charles, assignor of one-half to S. Jacobson, Chicago, Ill. Cuspidor.	462,861	Nov. 10	1021	264	57	757
Golden Gate Faucet Company. (See Anthony, Mark, assignor.)						
Golden Rule Company. (See Pease, Edward L., assignor.)						
Golden, Samuel, assignor of one-fourth to C. Cullen, Buffalo, N. Y. Water-motor.	445,551	Feb. 3	35	10	54	518
Golderer, Johann M., Stranling, Germany. Velocipede.	455,438	July 7	223	57	56	46
Goldfain, Ion, Philadelphia, Pa. Padlock.	460,636	Oct. 6	167	41	57	35
Goldie, William, West Bay City, Mich. Railway-spike.	457,582	Aug. 11	1080	276	56	743
Goldie, William, West Bay City, Mich. Manufacturing spikes or nails.	457,583	Aug. 11	1081	277	56	743
Goldie, William, West Bay City, Mich. Railway-tie plate.	457,584	Aug. 11	1083	277	56	744
Goldie, William, West Bay City, Mich. Railway-rail brace.	457,585	Aug. 11	1084	277	56	744
Goldie, William, Bay City, Mich. Blank bar for tie-plates.	465,260	Dec. 15	1993	510	57	1533
Golding, William H., Boston, Mass. Can.	450,754	Apr. 21	1707	413	55	349
Golding, William H., Chelsea, Mass. Printing-press.	451,681	May 5	362	89, 90	55	648
Goldman, Isaac S., assignor of one-half to C. H. Stone, Redlands, Cal. Coupling.	461,751	Oct. 20	1960	486	57	389
Goldmann, Philiyp, New York, N. Y. Hat or cap.	464,796	Dec. 8	1226	305	57	1377
Goldner, Simon, Brooklyn, N. Y. Device for making ear-wires.	447,405	Mar. 3	219	57	54	1159
Goldner, Simon, Brooklyn, N. Y. Scarf-pin and the like.	453,715	June 9	853	220	55	1317
Goldsbury, Frank E. (See Brooks, John J., assignor.)						
Goldsborough, Joseph N. (See Tilghman and Goldsborough.)						
Goldschmidt, Gustav, Berlin, Germany. Chair-bed.	464,153	Dec. 1	219	52	57	1177
Goldschmidt, Gustav, Berlin, Germany. Metal cover for books.	465,696	Dec. 22	2703	689	57	1678
Goldschmidt, Gustav, Berlin, Germany, assignor to B. Schlesinger, New York, N. Y. Bed-couch.	455,921	July 14	1002	260 261	56	201
Goldsmith, Byron B., New York, N. Y. Lead-pencil.	447,310	Mar. 3	44	11	54	1125
Goldsmith, Byron B., New York, N. Y. Manufacture of lead-pencils.	463,039	Nov. 10	1293		57	811
Goldsmith, Edwin M. (See Side, Edgar, assignor.)						
Goldsmith, Nathaniel O. (See Weir and Goldsmith.)						
Goldsmith, Nathaniel O., assignor to Weir Frog Company, Cincinnati, Ohio. Switch-stand.	458,452	Aug. 25	2491	606	56	1026
Goldstein, Albert, Baltimore, Md. Pneumatic fire-alarm.	446,863	Feb. 24	2206	549	54	971
Goldstein, Albert, Baltimore, Md. Pneumatic fire-alarm telegraph apparatus.	455,038	June 30	2919	742 743	55	1732
Goldstein, Bernard, Boston, Mass. Sewing-machine guide.	465,059	Dec. 15	1661	423	57	1471
Goldstein, Jacob, and I. Block, New York, N. Y. Oil-stove.	444,748	Jan. 13	1205	313	54	244
Goldstein, Jacob, and I. Block, New York, N. Y. Gas-stove.	450,933	Apr. 21	1966	487	55	401
Goldsworthy, William, Moline, Ill. Friction-clutch.	463,894	Nov. 24	2671	696	57	1090
Goldsworthy, William, Moline, Ill. Clutch.	463,895	Nov. 24	2672	696	57	1090
Goldthwait, Abel G. (See Wiles and Goldthwait.)						
Goldthwait, Charles, Weymouth, Mass. Necktie.	449,775	Apr. 7	203	52	55	41
Goldthwait, George F., Somerville, Mass. Fire-escape.	449,319	Mar. 31	3325	838	54	1782
Goldthwait, William F. (See Porter, Daniel R., assignor.)						
Goldthwaite, Joseph G., assignor to Rembert Roller Compress Company, Galveston, Tex. Adjusting device for compressing-rolls.	454,402	June 16	1825	478	55	1511
Goldthwaite, Joseph G., assignor to Rembert Roller Compress Company, Galveston, Tex. Baling cotton.	460,747	Oct. 6	345	84, 85	57	68
Goldthwaite, Joseph G., Galveston, Tex., assignor to Rembert Roller Compress Company, of Texas. Baling-press.	460,009	Sept. 22	2307	579	56	1532
Goldthwaite, Joseph G., Galveston, Tex., assignor to Rembert Roller Compress Company, of Texas. Condenser for cotton-gins.	462,404	Nov. 3	304	75, 76	57	608
Goldy, Samuel N., San Francisco, Cal. Sash-balance.	444,097	Jan. 6	181	46	54	38
Goldy, Samuel N., San Francisco, Cal. Sash-balance.	457,195	Aug. 4	405	106	56	609
Goldy, Samuel N., San Francisco, Cal. Wood-turning lathe.	460,127	Sept. 29	2500	623 624	56	1576
Goll, Henry A., Chicago, Ill. Swinging angular valve.	461,206	Oct. 13	1024	260	57	203
Gollings Bi-Centric Pump Company. (See Gollings, Ellick H., assignor.)						
Gollings, Ellick H., Chicago, Ill. Rotary engine.	448,607	Mar. 17	2183	545 546	54	1551
Gollings, Ellick H., Lewiston, Idaho, assignor to Gollings Bi-Centric Pump Company, Chicago, Ill. Rotary pump.	448,334	Mar. 17	1759	445 446	54	1472
Gollings, Ellick H., Lewiston, Idaho, assignor to Gollings Bi-Centric Pump Company, Chicago, Ill. Rotary pump.	448,335	Mar. 17	1764	446 447	54	1472
Gollings, Ellick H., assignor to Gollings Bi-Centric Pump Company, Chicago, Ill. Rotary pump.	448,336	Mar. 17	1766	447	54	1473
Gollings, Ellick H., assignor to Gollings Bi-Centric Pump Company, Chicago, Ill. Rotary pump.	448,518	Mar. 17	2036	509 510	54	1524
Gollings, Ellick H., assignor to Gollings Bi-Centric Pump Company, Chicago, Ill. Rotary pump.	448,608	Mar. 17	2186	546 547	54	1551
Gollmar, George J., Baraboo, Wis. Mechanical bell-ringer.	448,609	Mar. 17	2189	547	54	1552
Gollon, Frank G., Hoboken, N. J. Exercising-machine.	449,904	Apr. 7	392	99	55	77
Golomb, Abram. (See Glikson and Doeff, assignors.)	450,282	Sept. 8	1155	281	56	1298
Gonska, John. (See Donauer, Joseph, assignor.)						
Gonzalez, Valeriano, Durango, Mexico. Smoking device.	455,614	July 7	512	132	56	98
Gooch, Mike M., Jefferson, assignor of two-thirds to K. M. Rooker and J. Miles, Florence Station, Tenn. Car-coupling.	465,779	Dec. 22	2824	724	57	1702
Good, Albert S. (See Spangler and Good.)						
Good, Arthur T., Hamilton, Ohio. Polishing-cone.	449,217	Mar. 31	3141	792	54	1750
Good, Brent. (See Gotendorf, James N., Jr., assignor.)						
Good, Edward G., and J. Thorne, Portland, Oreg., assignors of one-third to E. Rust, Saginaw, Mich. Ore-separator.	455,531	July 7	370	94, 95	56	79
Good, George W. (See Spangler and Good.)						
Good, Israel F., assignor of one-half to T. F. Diefenderfer and S. Ruch, Allentown, Pa. Mechanical movement.	453,903	June 9	1105	289	55	1366
Good, Jonathan, Ridley Park, Pa. Toy pistol.	455,099	June 30	3027	769	55	1753
Good, Joshua J. (See Earle, Good, and Redmon.)						
Good, Peter, Wilkes-Barré, Pa. Oil-can.	465,559	Dec. 22	2495	637	57	1638
Good, William E., assignor to Southwark Foundry and Machine Company, Philadelphia, Pa. Steam-engine.	448,184	Mar. 10	1474	375 376	54	1408
Good, William E., assignor to Southwark Foundry and Machine Company, Philadelphia, Pa. Blowing-engine.	464,964	Dec. 15	1478	371 372	57	1437

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Good, William E., and C. O. Lindroth, assignors to Southwark Foundry and Machine Company, Philadelphia, Pa. Link-motion for compound engines	446,444	Feb. 17	1557	{ 382 383 }	54	833
Good, William E., and C. O. Lindroth, assignors to Southwark Foundry and Machine Company, Philadelphia, Pa. Piston	451,478	May 5	49	12	55	588
Goodacre, Henry, Lexington, Ky. Filter	446,342	Feb. 10	1387	{ 338 339 }	54	787
Goodacre, Henry, Lexington, Ky. Permutation-lock	451,153	Apr. 28	2329	581	55	479
Goodacre, Henry, Lexington, Ky. Envelope-fastener	464,068	Dec. 1	95	24	57	1155
Goodall, Frank C., Richmond, England. Marine cement	452,162	May 12	1199		55	808
Goodbody, Robert, Upton, Ireland. Automatic visible-feed injector	446,749	Feb. 17	2020	504	54	924
Goode, Lemuel G., Jersey City, N. J., assignor to Paterson Electrical Manufacturing Company, of New Jersey. Electric motor	453,711	July 7	671	177	56	130
Goode, William T., et al. (See Burks, Walter, assignor.)						
Goodell, Albert D. and H. E., Shelburne Falls, Mass. Automatic screw-driver	463,506	Nov. 17	2033	533	57	962
Goodell, Albert D. and H. E., Shelburne Falls, Mass. Drilling-tool	463,507	Nov. 17	2034	533	57	962
Goodell Company. (See Oaks, William A. C., assignor.)						
Goodell, Henry E. (See Goodell, Albert D. and H. E.)						
Goodhue, Seth, Wilmot, N. H. Tramway-switch	451,760	May 5	489	121	55	671
Goodin, John, Brazil, Ind. Means for securing the inside finishings of houses	465,472	Dec. 22	2335	599	57	1608
Gooding, Charles S. (See Beauregard and Gooding.)						
Gooding, Charles S. (See Hitchcock and Gooding.)						
Gooding, Charles S. (See Perkins and Gooding.)						
Gooding, Charles S., Brookline, Mass. Dress-form	462,700	Nov. 10	765	199	57	706
Gooding, Charles S., and V. Beauregard, assignors to Morley Button Manufacturing Company, Boston, Mass. Mechanism for button-machines	459,375	Sept. 8	1297	321	56	1326
Gooding, Charles S., Boston, and R. L. Ellery, Taunton, assignors to Morley Button Manufacturing Company, Boston, Mass. Mechanism for operating movable dies for machines for making shoe-buttons	459,371	Sept. 8	1289	318	56	1324
Gooding, Charles S., Boston, and R. L. Ellery, Taunton, assignors to Morley Button Manufacturing Company, Boston, Mass. Eye-forming mechanism for button-machines	459,372	Sept. 8	1291	{ 318 319 }	56	1325
Gooding, Charles S., Boston, and R. L. Ellery, Taunton, assignors to Morley Button Manufacturing Company, Boston, Mass. Eye-forming mechanism for button-machines	459,373	Sept. 8	1293	{ 319 320 }	56	1325
Gooding, Charles S., Boston, and R. L. Ellery, Taunton, assignors to Morley Button Manufacturing Company, Boston, Mass. Mechanism for feeding strips of stock material	459,374	Sept. 8	1295	320	56	1326
Gooding, Charles S., Boston, and R. L. Ellery, Taunton, assignors to Morley Button Manufacturing Company, Boston, Mass. Method of and machine for making buttons	459,376	Sept. 8	1299	{ 322 323 324 325 326 }	56	1327
Gooding, James F. (See Gooing, Martin B., assignor.)						
Goodrich, Addison, Astoria, Oreg. Packing-extractor	452,453	Aug. 25	2492	606	56	1026
Goodman, B. (See Smith, William E., assignor.)						
Goodman, Burkard, New York, N. Y. Elastic braid or web	446,707	Feb. 17	1954	487	54	911
Goodman, Henry M., Louisville, Ky. Axle-lubricator	464,824	Dec. 8	1262	315	57	1385
Goodman, Henry M., Louisville, Ky. Axle-lubricator	463,368	Dec. 15	2183	559	57	1568
Goodman, Simon, Dayton, Ohio. Lady's shoe-mirror	447,770	Mar. 10	804	199	54	1277
Goodnow, Julius S., Brooklyn, assignor to himself, and R. Lichtenstein, New York, N. Y. Sweeping-machine	451,927	May 12	750	{ 189 190 }	55	727
Goodnow, William E., and H. R. Margason, Columbus, Ind. Pipe-wrench	446,547	Feb. 17	1717	421	54	865
Goodrich, Benjamin F., Homer, Mich. Oil-stove for heating purposes	459,531	Sept. 15	1558	388	56	1383
Goodrich, Calvin G. (See Scott, Gordon J., assignor.)						
Goodrich, Egbert C., assignor of one-half to C. H. Riopelle, Ecorse, Mich. Curry-comb	460,091	Sept. 22	2438	609	56	1557
Goodrich, Harry C., assignor to L. M. Goodrich, Chicago, Ill. Gas-lighter	453,145	May 26	2756	694	55	1123
Goodrich, Harry C., assignor to T. Kane & Co., Chicago, Ill. School-slate	453,971	June 9	1194	312	55	1384
Goodrich, Harry C., Chicago, Ill. assignor, by mesne assignments, to Velocity Manufacturing Company, of Illinois. Velocipede	453,395	July 7	156	40	56	33
Goodrich, Harry C., Chicago, Ill. assignor, by mesne assignments, to Velocity Manufacturing Company, of Illinois. Wheel	455,426	July 7	207	53	56	42
Goodrich, Harry C., assignor to L. M. Goodrich, Chicago, Ill. Bicycle	456,217	July 21	1439	381	56	292
Goodrich, Harry C., assignor to L. M. Goodrich, Chicago, Ill. Wheel	456,218	July 21	1441	382	56	292
Goodrich, Harry C., and F. Henry, Chicago, Ill. assignors, by mesne assignments, to Chicago Nickel Works, of Illinois. Attachment-holder for sewing-machines	448,225	Mar. 17	1557	{ 397 398 }	54	1432
Goodrich, Hervey K., Topeka, Kans. Device for separating air in pipe-lines from Artesian wells	465,019	Dec. 15	1593	405	57	1459
Goodrich, John C. (See Dredge, Albert H., assignor.)						
Goodrich, Judson A., Haverhill, Mass. Radiator	462,899	Nov. 10	1086	282	57	770
Goodrich, Louisa M. (See Goodrich, Harry C., assignor.)						
Goodrich, Walter G. (See Donovan, Thomas J., assignor.)						
Goodridge, James F., Boston, Mass. Cash indicator and register	446,343	Feb. 10	1388	339	54	787
Goodridge, William M., Highland Park, assignor to Western Electric Company, Chicago, Ill. Electric connection for distributing telephone-lines	453,000	May 26	2519	638	55	1077
Goodridge, William M., Highland Park, assignor to Western Electric Company, Chicago, Ill. Loop-switch	455,747	July 14	740	195	56	151
Goodson, George A., Minneapolis, Minn. Magnetic toy	464,611	Dec. 8	922	227	57	1321
Goodspeed, Charles E., Chicago, Ill. Loaded toy ball	454,544	June 23	2057	532	55	1564
Goodspeed, Charles E., Chicago, Ill. Device for displaying fabrics	455,712	July 7	673	177	56	130
Goodstein, Abraham. (See Cordingly, Alfred, assignor.)						
Goodwillie, Walter S., Cambridge, assignor to C. Dimond, Chelsea, Mass. Furniture	445,777	Feb. 3	438	{ 108 109 }	54	597
Goodwin, Adolphus D., assignor of one-half to M. P. Frantz, Salem, Va. Coffee-roaster	461,783	Oct. 20	2021	499	57	400
Goodwin, Asahel J., Brookline, Mass. Combination invalid bed and chair	453,236	June 2	86	23	54	1165
Goodwin, Asahel J., Brookline, Mass. Invalid-bed	453,237	June 2	91	24	55	1165
Goodwin, Hannibal, Newark, N. J. Preparing plates or surfaces for ornamentation	444,951	Jan. 20	1580		54	323
Goodwin, Hannibal, Newark, N. J. Preparing plates for utility and ornament	444,952	Jan. 20	1586	406	54	324
Goodwin, Hannibal, Newark, N. J. Preparing plates for purposes of utility or ornament	459,136	Sept. 8	929	{ 223 224 }	56	1254
Goodwin, Hannibal, Newark, N. J. Preparing plates for purposes of utility or ornament	459,137	Sept. 8	932	224	56	1254
Goodwin, Henry D., Milwaukee, Wis. Governor for phonographs	452,976	May 26	2481	627	55	1070
Goodwin, John M., Sharpville, Pa. Dumping-car	454,863	June 30	2574	{ 661 662 }	55	1666
Goodwin, John M., Sharpville, Pa. Dumping-car	458,752	Sept. 1	306	75	56	1134
Goodwin, Julius C., Philadelphia, Pa. Sewing and edging machine	459,793	Apr. 21	1773	{ 431 432 }	55	361
Goodwin, Landon R., Arlington, N. J. Paper-retaining device	459,154	Sept. 8	961	233	56	1259

Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Goodwin, Laura P. (See Parker, Charles G., assignor.)						
Goodwin, Levi H., Cincinnati, Ohio. Elevated railway	445,467	Jan. 27	2351	611	54	485
Goodwin, Lewis T., and J. A. Hunter, Granby, Vt. Car-bunk	461,572	Oct. 20	1678	411	57	337
Goodwin, Wilbur E. (See Hurlbut, Samuel C., assignor.)						
Goodwin, Zachary J., Memphis, Tenn. Dnst and cinder protector	444,749	Jan. 13	1206	313	54	244
Goodyear, Albert, New Haven, Conn. Harvesting-machine	453,471	June 2	466	120	55	1236
Goodyear, Charles A., Tomah, Wis. Apparatus for handling and loading lumber.	462,312	Nov. 3	154	39	57	580
Goodyear Shoe Machinery Company. (See Briggs, Henry, assignor.)						
Goodyear Shoe Machinery Company. (See French, Zachary T., assignor.)						
Goosing, Martin B., Haroldton, assignor of one-half to J. F. Gooding, Van Buren, Ark. Harrow and cultivator	452,641	May 19	1939	486	55	957
Goordman, Johan V., Brooklyn, N. Y. Pedal for pianos	456,088	July 14	1241	326	56	244
Goosen, Henry, R. J. Haly, and J. W. Kent, Brooklyn, N. Y. Paint-mill.	448,226	Mar. 17	1558	398	54	1433
Goosmann, Henry, West Bend, Wis. Fire-ladder	444,632	Jan. 13	1013	264	54	209
Gordon, Abram G., Chester, Ill. Fire-escape	448,227	Mar. 17	1559	398	54	1433
Gordon, Albert A. (See Wyman and Gordon.)						
Gordon, Edward F., assignor of one-half to A. W. Hobbs, administratrix of H. Hobbs, deceased, Concord, N. H. Engine-valve	465,925	Dec. 29	3062	786	57	1758
Gordon, Elonso J., assignor to Gordon Hollow Blast Grate Company, Greenville, Mich. Grate	465,431	Dec. 15	2270	582	57	1586
Gordon, Frank L., New Orleans, La. Barrel-making machinery	454,954	June 30	2762	704	55	1701
Gordon Hollow Blast Grate Company. (See Gordon, Elonso J., assignor.)						
Gordon, John. (See Hammond and Gordon.)						
Gordon, John E., Lexington, Ky. Traveling step-ladder	464,433	Dec. 1	652	160	57	1259
Gordon, John L., Philadelphia, Pa. Combined ruler and blotting-pad holder	444,698	Jan. 13	1119	289	54	229
Gordon, Minthorne T., assignor to himself, R. T. Gordon, J. S. Boden, and M. Stack, Stapleton, N. Y. Street-sweeper	451,723	May 5	498	104	55	660
Gordon, Ray T., et al. (See Gordon, Minthorne T., assignor.)						
Gordon, Thomas, Philadelphia, Pa. Gas-regulator	461,829	Oct. 27	2102	518	57	424
Gordon, Thomas J., Lima, Ohio. Purifying petroleum distillates	451,724	May 5	431		55	660
Gordon, William, Boston, Mass. Machine for extracting lasting-tacks	448,226	Mar. 10	1242	316	54	1360
Gordon, William, Boston, assignor of one-half to O. A. Miller, Brockton, Mass. Last	449,977	Apr. 7	349	89	55	69
Gordon, William, Boston, and A. E. Perry, Wakefield, Mass.; said Perry assignor to said Gordon. Machine for pulling lasting-tacks	459,202	Sept. 8	1032	252	56	1272
Gordon, William J., assignor to B. P. Obdye, Philadelphia, Pa. Sheet-metal elbow or shoe	455,910	July 14	985	257	56	197
Gordon, William R. (See Maule, John A., assignor.)						
Gore, Henry A. (See Rice and Gore.)						
Gorenflo, Louis T., assignor to C. F. Adams, Erie, Pa. Clothes-wringer	447,609	Mar. 3	551	136	54	1221
Gorham, John W., Mount Vernon, Iowa. Swinging gate	447,819	Mar. 10	894	223	54	1294
Gorham, John W., Mount Union, Iowa. Swinging gate	457,852	Aug. 18	1515	394	56	835
Gorham Manufacturing Company. (See Cress, Thomas W., assignor.)						
Gorham Manufacturing Company. (See Wilkinson, Walter, assignor.)						
Gorich, Jacob, J. Ilg, and T. M. Cronin, Morris, Ill. Brick or tile machine	462,313	Nov. 3	155	39, 40	57	580
Gorman, William E., Brooklyn, N. Y. Pocket ticket-holder	458,786	Sept. 1	358	87	56	1134
Gormley, John W., assignor of one-half to M. T. Foley, Cincinnati, Ohio. Vehicle-shaft	453,256	June 2	118	32	55	1170
Gormley, Robert W., Troy, N. Y. Blade for knitting-wheels	451,376	Apr. 28	2693	668	55	546
Gormully & Jeffery Manufacturing Company. (See Cottle, Luther M., assignor.)						
Gornall, Richard, Baltimore, Md., assignor to Lamson Consolidated Store Service Company, Boston, Mass. Store-service apparatus	465,966	Dec. 29	3132	803	57	1770
Gorrell, William L. (See Custer and Gorrell.)						
Gorton, James L., and J. Bedell, Sing Sing, N. Y. Pencil-sharpener	444,431	Jan. 13	705	184	54	147
Gorton, Robert, Plainfield, N. J. Wire hook and hanger	451,122	Apr. 28	2282	565	55	468
Gorton, Robert, Plainfield, N. J. Wire cleat	459,487	Sept. 15	1487	373	56	1371
Goruni, George W. (See Rowe, Amos D., assignor.)						
Gosewich, Ernest H., Chicago, Ill. Ruching	449,116	Mar. 31	2986	754	54	1722
Goshen Folding Bed Company. (See Rice and Gore, assignors.)						
Gosling, Charles, Brooklyn, assignor to Stern Brothers & Co., New York, N. Y. Finger-ring	448,610	Mar. 17	2190	548	54	1552
Gosman, Harry, Watertown, N. Y. Railway time-signal	460,128	Sept. 29	2506	624	56	1577
Goss, Edward O., assignor to Scovill Manufacturing Company, Waterbury, Conn. Machine for scouring metal	450,456	Apr. 14	1230	301	55	241
Goss, Edward O., assignor to Scovill Manufacturing Company, Waterbury, Conn. Muffle-furnace	463,401	Nov. 17	1893	{ 493 494 }	57	933
Goss, John C., Detroit, Mich. Canopy-frame	462,077	Oct. 27	2475	614	57	496
Goss Printing Press Company. (See Goss, Samuel G., assignor.)						
Goss, Samuel G., assignor to Goss Printing Press Company, Chicago, Ill. Press delivery apparatus	449,156	Mar. 31	3046	{ 769 770 }	54	1733
Goss, Samuel G., assignor to Goss Printing Press Company, Chicago, Ill. Delivery apparatus for printing-presses	459,961	Sept. 22	2239	562	56	1519
Goss, Samuel G., assignor to Goss Printing Press Company, Chicago, Ill. Cylinder for rotary printing-presses	461,188	Oct. 13	984	252	57	195
Goss, Samuel G., assignor to Goss Printing Press Company, Chicago, Ill. Printing press	461,189	Oct. 13	985	{ 252 253 }	57	195
Goss, William C., assignor of one-half to E. L. Hill, Lynn, Mass. Fire-protecting apparatus for buildings	465,818	Dec. 22	2881	737	57	1714
Goss, Wilson L., and W. H. Harrell, Dallas, Tex. Car-coupling	460,936	Oct. 6	620	159	57	121
Gosselin, Pierre O., Quebec, Canada. Hydraulic motor	463,040	Nov. 10	1296	335	57	811
Gossett, John H., et al. (See Faris, Lafayette, assignor.)						
Gotendorf, James N., Jr., Paris, France, assignor to B. Good, New York, N. Y. Button	454,266	June 16	1625	426	55	1475
Gotshall, David H., and E. Petit, Astoria, Oreg. Neck-yoke	457,269	Aug. 4	544	142	56	633
Gottfinner, Michael. (See Tannenbaum and Gottfinner.)						
Gottfried, Julius, Chartiers, Pa. Shelving	450,289	Apr. 14	961	239	55	191
Gottfried, Mathens, Chicago, Ill. Barrel-washing machine	450,149	Apr. 14	740	{ 186 187 188 }	55	150
Goubert, Auguste A., Brooklyn, N. Y. Steam-trap	464,018	Dec. 1	23	6, 7	57	1140
Goubert, Auguste A., Brooklyn, assignor to F. O. Matthiessen, Irvington, N. Y. Shutter-fastener	456,114	July 14	1277	{ 335 336 }	56	252
Goubert, Auguste A., Brooklyn, assignor to F. O. Matthiessen, Irvington, N. Y. Shutter-fastener	456,115	July 14	1279	{ 336 337 }	56	253
Gondie, William, Glasgow, Scotland. Pantographic engraving-machine	460,931	Oct. 6	611	155	57	119
Gould, Aaron P., et al. (See Wilcox, Amos A., assignor.)						
Gould, Aaron P., Canton, Ohio. Surgical chair	453,181	June 2	11	3, 4	55	1151

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Gould, Charles B. (See Blasdel and Morse, assignors.)						
Gould, Charles E. (See Edgerly and Gould.)						
Gould, Charles E., Northampton, assignor to Florence Machine Company, Florence, Mass. Show-case for spool-thread.	446,642	Feb. 17 1854	460	54	892	
Gould, Claude C., Batavia, assignor to Eastern Electrical Manufacturing Company, Wheatfield, N. Y. Telephone-switch system	447,426	Mar. 3	246	63	54	1164
Gould, Claude C., Buffalo, assignor to Eastern Electrical Manufacturing Company, Wheatfield, N. Y. Telephone system	461,573	Oct. 20	1679	411	57	337
Gould, E. H., <i>et al.</i> (See Wheeler, Richard, assignor.)	452,603	May 19	1876	472	55	944
Gould, John J., Washington, D. C. Cook-stove.	451,377	Apr. 28	2694	{ 668 669 }	55	546
Gould, Robert H., Berlin, Germany. Safety connection for electric conductors	458,897	Sept. 1	549	133	56	1170
Gould, Sylvester O., assignor of one-third to W. H. Ransom, Lockport, N. Y. Register for counting the revolutions or strokes of machines	458,897	Sept. 1	549	133	56	1170
Gould, Thomas B., <i>et al.</i> (See Stein, Samuel P., assignor.)	454,469	June 23	1940	{ 505 506 }	55	1542
Gould, Wallace W., Bridgeport, Conn., assignor to Warner Brothers, New York, N. Y. Corset	444,827	Jan. 20	1329	345	54	277
Gouldberg, Hans J., Cambridge, Minn. Running-gear for wagons	444,827	Jan. 20	1329	345	54	277
Goulden, Samuel. (See Allen and Goulden.)						
Goulds Manufacturing Company. (See Aldrich, Roscoe H., assignor.)						
Goundry, John B., Denton, assignor of one-half to H. P. Glover, Ypsilanti, Mich. Whiffletree.	465,130	Dec. 15	1795	454	57	1495
Goutray, David A. (See Babcock and Goutray.)						
Gouyard, Gustave M., Leadville, Colo. Electro-magnetic separator	460,962	Oct. 13	655	169	57	135
Gove, Jesse M., <i>et al.</i> (See Whittier, Alcibiades J., assignor.)	449,157	Mar. 31	3046	770	54	1733
Gow, Alexander M., Pittsburg, Pa. Automatic stoker.	459,577	Sept. 15	1633	409	56	1397
Goyne, William, Ashland, Pa. Rope sheave or pulley						
Grabau, Hans E. (See Soltmann and Grabau.)						
Grabau, Ludwig, Hanover, Germany. Apparatus for obtaining metals of the alkalis from molten chloride	464,066	Dec. 1	137	34	57	1163
Grabau, Ludwig, Hanover, Germany. Obtaining metallic sodium	464,097	Dec. 1	138		57	1163
Grabau, Ludwig, Hanover, Germany. Production of insulating coatings or linings in electrolytic apparatus	465,369	Dec. 15	2184	560	57	1568
Grabler, Peter, Pittsburg, Pa. Teething-bit for children	462,763	Nov. 10	859	225	57	725
Grabill, John R. (See Grabill, Phares R., assignor.)						
Grabill, Phares R., assignor of one-third to J. K. Grabill, Millersburg, Pa. Mill-race fender and screen	452,702	May 19	2030	{ 508 509 }	55	975
Grace, Henry S., assignor to J. A. Fischer, San Francisco, Cal. Rock-drill	455,396	July 7	158	40	56	34
Grace, Henry S., assignor to J. A. Fischer, San Francisco, Cal. Rock-drill	464,340	Dec. 1	524	128	57	1234
Grace, Robert W., Worcester, Mass. Ladle	460,575	Oct. 6	51	12	57	12
Gracey, Charles B. (See Gracey, Robert, assignor.)						
Gracey, Robert, Allegheny, assignor of one-half to C. B. Gracey, Coraopolis, Pa. Vehicle-shafts	448,611	Nov. 17	2192	548	54	1553
Grady, Morris, Chicago, Ill. Bridge-gate	463,313	Nov. 17	1737	454	57	904
Graebing, Samuel Y., <i>et al.</i> (See Taylor, Alfred P., assignor.)						
Graf, Adolph J. C., Hamburg, Germany, assignor to C. A. and A. Barrett, London, England. Coin-controlled machine for indicating the force of a blow or pressure	446,970	Feb. 24	2392	{ 595 596 }	54	1004
Graf, Henry J., St. Louis, Mo. Melting iron	454,209	June 16	1543	406	55	1458
Graf, Robert R., assignor of one-half to F. W. Reis, Baltimore, Md. Incombustible waste for lubricating purposes	445,889	Feb. 3	615		54	633
Graf, Robert R., assignor of one-half to F. W. Reis, Baltimore, Md. Lubricating-oil	446,344	Feb. 10	1390		54	788
Graf, Robert R., assignor of one-half to F. W. Reis, Baltimore, Md. Refrigerating composition	450,862	Apr. 21	1893		55	383
Graff, Albert, San Francisco, Cal. Piano	449,933	Apr. 7	431	108	55	84
Graff, Edwin D. (See Metz, Bernhard, assignor.)						
Graff, Edwin D., New York, N. Y. Electric signaling apparatus for railways	448,856	Mar. 24	2503	{ 651 652 }	54	1637
Graff, Justin J., San Francisco, Cal. Cable-grip	451,857	May 5	621	154	55	697
Grafton, Henry, London, England. Steam-engine	460,129	Sept. 29	2508	{ 624 625 }	56	1577
Gragg, Seymour M., and W. T. Wigger, Mayesburg, Mo. Animal-trap	461,079	Oct. 13	825	212	57	166
Graham, Arthur W., Stanberry, Mo. Gate	450,569	Apr. 14	1383	341	55	273
Graham, George H., Ridgeland, and T. Gannane, Chicago, Ill. Electric insulator	448,956	Mar. 24	2738	690	54	1665
Graham, Henry S. (See Baker and Graham.)						
Graham, Isaac T., Edgar, Nebr. Corn-harvester	451,378	Apr. 28	2696	669	55	547
Graham, J. W., <i>et al.</i> (See Malone, James, assignor.)						
Graham, John, Minneapolis, Minn. Water-conductor for turbines	446,287	Feb. 10	1297	317	54	769
Graham, John H., Warren, Pa. Oil-burner	445,015	Jan. 20	1672	429	54	342
Graham, John S., <i>et al.</i> (See Bunce, William H., assignor.)						
Graham, Lizzie, Portland, Oreg. Floor-washing machine	446,445	Feb. 17	1558	383	54	834
Graham, Lozelle F. (See Flickinger and Graham.)						
Graham, Malcolm, <i>et al.</i> (See Beardsley and Moulton, assignors.)						
Graham, Marcellus A., San Francisco, Cal. Gas-engine	445,110	Jan. 20	1818	471	54	370
Graham, Samuel, Lebeck, Mo. Draft-equalizer	448,483	Mar. 17	1992	499	54	1515
Graham, Simon P., Brantford, Ontario, Canada. Boring-tool holder	449,246	Mar. 31	3182	803	54	1759
Graham, Thomas M., <i>et al.</i> (See Hobart, John H., assignor.)						
Graham, Ulysses G., assignor of one-half to L. Copleston, Nyack, N. Y. Steam-boiler	455,318	July 7	29	8	56	8
Graham, W. P., <i>et al.</i> (See Edey, Charles E. C., assignor.)						
Graham, William A., Carlisle, Pa. Oscillating steam-engine	450,934	Apr. 21	1987	488	55	401
Graham, William A., Carlisle, Pa. Governor for steam-engines	461,830	Oct. 27	2104	518	57	425
Graham, William H., and G. R. McDonald, London, county of Middlesex, England. Wheel-locking device for baby-carriages	444,432	Jan. 13	707	185	54	148
Graham, William R. (See Raab, William, assignor.)						
Graichen, Herman, Lawrence, Mass. Shuttle-locking mechanism for looms	462,701	Nov. 10	765	199	57	707
Grainger, Alfred, London, England. Nailless horseshoe	456,487	July 21	1889	499	56	377
Gram, Benjamin F., Cordelia, and W. Bard, Columbia, Pa. Nut-lock	447,311	Mar. 3	45	11	54	1136
Gram, Ernst W., Los Vegas, N. Mex. Ter. Means for propelling vessels	452,669	May 19	1977	496	55	964
Gramm, Carl, assignor to Berliner Maschinenbau Actien-Gesellschaft, vormals L. Schwartzkopf, Berlin, Germany. Valve-operating gear for gas, petroleum, or other similar engines.	453,080	May 26	2652	669	55	1103
Gramm, Emil. (See Grauert, Edgar, assignor.)						
Gran, Edw. C. (See Bristol, Edmund R., assignor.)						
Grand Detour Plow Company. (See Ruef, Charles S., assignor.)						
Grand Rapids Folding Bed Company. (See Smith and Herrinton, assignors.)						
Grandy, Edward F. (See Copeland, Crisp, and Grandy.)						
Granger Foundry and Machine Company. (See Honeyman, Henry W., assignor.)						
Granger, Frank D., New York, N. Y. Lock for fire-arms	456,813	July 28	2430	641	56	487

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Gauger, Frank E., Aherdeen, S. D. Machine for use by stenographers and short-hand writers	444,353	Jan. 20	1591	406	54	325
Granger, James B., Delhi, N. Y. Car-coupling	462,078	Oct. 27	2476	614	57	497
Granger, John W., New York, N. Y. Piano-damper	446,097	Feb. 10	957	235	54	705
Granger, Jean B., Lyons, France Trousers-stretcher	451,617	May 5	264	63	55	629
Grannis, Charles M., assignor of one-half to C. S. Grannis, Syracuse, N. Y. Machinist's gage and gage-holder	451,123	Apr. 28	2283	565	55	468
Grannis, Charles S. (See Grannis, Charles M., assignor.)						
Grannis, Hial S., assignor to Peck, Stow & Wilcox Company, Southington, Conn. Stove-pipe former	458,683	Sept. 1	215	50	56	1107
Grannis, Hial S., assignor to Peck, Stow & Wilcox Company, Southington, Conn. Grooving-machine	462,840	Nov. 10	989	256	57	751
Grannis, James E. (See Tracy, Lewis W., assignor.)						
Grant, Alexander. (See Meyer, Kiehl, and Grant.)						
Grant, Arthur W. (See Jefferies and Grant.)						
Grant, Daniel, assignor of one-half to R. Kennedy, H. Armstrong, A. Vanslyck, E. Burley, C. Phippen, T. Bain, S. D. Williams, C. Rogers, C. P. Wemp, and M. Robinson, Bath, Canada. Railway-signal	463,122	Nov. 10	1439	372	57	839
Grant, Duncan E., Quebec, Canada. Watch-case pendant	445,172	Jan. 27	1924	497	54	400
Grant, Duncan E., Quebec, Canada. Calendar for time-pieces	451,042	Apr. 28	2172	537	55	445
Grant, Frank, Westfield, Mass. Whip	448,650	Mar. 24	2263	568	54	1574
Grant, John, assignor to Grant Manufacturing Company, Chicago, Ill. Machine for making timber-hangers	445,149	Jan. 20	1886	487	54	384
Grant, John S., assignor of one-half to J. C. Rhodes, Jr., Stillwater, Minn. Horse-blanket	457,196	Aug. 4	408	106	56	610
Grant, Lorenzo D., Lansingburg, N. Y. Brush	464,647	Dec. 8	979	244	57	1332
Grant Manufacturing Company. (See Grant, John, assignor.)						
Grant, Oscar F., Pittsburg, Pa. Folding portable shower-bath	462,125	Oct. 27	2563	636	57	513
Grant, Oscar F., assignor to Standard Manufacturing Company, Pittsburg, Pa. Cradle for bath-tubs	455,615	July 7	514	133	56	99
Grant, Oscar F., assignor to Standard Manufacturing Company, Pittsburg, Pa. Ornamental casing for bath-tubs	462,124	Oct. 27	2561	636	57	512
Grant, Oscar F., Pittsburg, assignor of one-half to F. J. Torrance, Allegheny, Pa. Gas fire for heating and other purposes	457,081	Aug. 4	238	61	56	578
Grant, Perrin, Baltimore, Md. Armature for electric motors and generators	451,242	Apr. 28	2502	616	55	509
Grant, Richard A., Houston, Tex. Hay-press	452,604	May 19	1876	472	55	945
Grant, Samuel, Jr., Fort Worth, Tex. Rotary valve for steam-engines	444,066	Jan. 6	137	34	54	30
Grant, William A., Houston, Tex. Soap-making apparatus	457,918	Aug. 18	1623	424	56	854
Grant, William A., Houston, Tex. Process of and apparatus for refining cotton-seed oil	461,675	Oct. 20	1842	456	57	366
Grant, William A., Paterson, N. J. Loom-harness	461,752	Oct. 20	1961	486	57	389
Grant, William W., Brooklyn, N. Y. Can	458,898	Sept. 1	551	134	56	1170
Grantland, John W., Philadelphia, Pa., assignor to Zindars & Hunt, New York, N. Y. Gong or bell	461,241	Oct. 13	1086	275	57	217
Grantland, John W., assignor of three-fourths to A. J. Ingraham and W. L. Boggs, Philadelphia, Pa. Expanding mandrel	465,075	Dec. 15	1685	429	57	1475
Granville, Bernard, Chicago, Ill. Type-writing machine	446,676	Feb. 17	1904	473	54	902
Gränz, Hermann, Limbach, assignor to F. Rabe, Chemnitz, Germany. Knit drawers	461,118	Dec. 1	165	41	57	1169
Grath, Walter P., St. Louis, Mo. Brick-kiln	455,039	June 30	2922	743	55	1733
Grath, Walter P., St. Louis, Mo., assignor to Illinois Supply and Construction Company, of Illinois. Brick-kiln	463,601	Nov. 17	2203	581	57	994
Gratias, Simeon D., St. Louis, Mo. Pipe threading and cutting machine	458,899	Sept. 1	552	134	56	1171
Gratz, Anderson. (See Gratz, Benjamin and A.) (Reissue.)						
Gratz, Benjamin and A., St. Louis, Mo. Making jute bagging. (Reissue.)	11,205	Dec. 1	735		57	1275
Gratznowsky, William, North Indianapolis, Ind. Reclining-chair	446,062	Feb. 10	904	220	54	696
Gratert, Edgar, assignor to E. Gramm, New York, N. Y. Electro-therapeutic apparatus	456,219	July 21	1423	382	56	293
Graves, Abbott, assignor to Wadsworth, Howland & Co., Boston, Mass. Easel	461,331	Oct. 13	1215	309	57	243
Graves, Charles O., Washington, Kans. Stove	449,218	Mar. 31	3142	792	54	1750
Graves, Erwin, Camden, N. J., assignor to W. Wood, Philadelphia, Pa. Hydraulic crane	456,360	July 21	1674	441	56	337
Graves, Erwin, Camden, N. J., assignor to W. Wood, Philadelphia, Pa. Hydraulic traveling crane	456,361	July 21	1677	442	56	337
Graves, Erwin, Camden, N. J., assignor to W. Wood, Philadelphia, Pa. Hydraulic crane	462,637	Nov. 3	653	165	57	677
Graves, Frank C., Washington, D. C. Match-box	453,383	June 2	312	81	55	1206
Graves, Gilbert S. (See Tomilson, William, assignor.)						
Graves, Henry C., Sandwich, Ill. Apple and osage seeder	461,976	Oct. 27	2334	578	57	469
Graves, John B., Cedar Rapids, Iowa. Car-coupling	460,531	Sept. 29	3124	781	56	1697
Graves, John B., Cedar Rapids, Iowa. Car-coupling	460,532	Sept. 29	3126	781	56	1697
Graves, John J., assignor to S. S. Jewett & Co., Buffalo, N. Y. Stove-shelf	456,000	July 14	1124	295	56	292
Graves, John J., assignor to S. S. Jewett & Co., Buffalo, N. Y. Counterbalancing device for doors	463,150	Nov. 17	1482	385	57	855
Graves, Louis H. (See Thompson, Richard, assignor.)						
Gravit, William, Elkhart, Ind., assignor to himself, and G. H. Kimball, Cleveland, Ohio. Railway earth-scraper	452,130	May 12	1109	282	55	791
Gray, Albert Y. (See Gray, Leonidas and A. Y.)						
Gray, Alexander, Butte City, Mont. Chair for mining-cages	466,163	Dec. 29	3467	886	57	1836
Gray, Andrew G., St. John, Canada. Car-door	466,164	Dec. 29	3468	886	57	1836
Gray, Christian H., Silvertown, county of Essex, England. Tire for vehicle-wheels	452,876	May 26	2303	582	55	1036
Gray Company, G. A. (See Gray and Richter, assignors.)						
Gray Current Motor Company. (See Gray, Richard E., assignor.)						
Gray, Elisha, Highland Park, Ill. Electric motor	452,429	May 19	1599	397	55	894
Gray, Elisha, Highland Park, Ill. Telautograph	461,470	Oct. 20	1461	367	57	297
Gray, Elisha, Highland Park, Ill. Telegraphy	461,471	Oct. 20	1478	368	57	300
Gray, Elisha, Highland Park, Ill. Art of and apparatus for telautographic communication	461,472	Oct. 20	1490	369	57	300
Gray, Elisha, Highland Park, Ill. Telautograph	461,473	Oct. 20	1518	370	57	306

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Gray, Elisha, Highland Park, Ill. Telautograph	461,474	Oct. 20	1521	{ 373	} 57	307
Gray, George, London, England. Spoon	453,972	June 9	1195	374		
Gray, George A., and E. Richter, assignors to G. A. Gray Company, Cincinnati, Ohio. Metal-planing machine	447,820	Mar. 10	895	312	55	1384
Gray, George F., San Francisco, Cal. Apparatus for cutting or marking artificial-stone pavements	460,821	Oct. 6	448	224	54	1294
Gray, George H., Denver, Colo. Making soda with strontium salts	459,688	Sept. 15	1815	113	57	89
Gray, Hiram W., Little Rock, Ark. Nut-lock	465,848	Dec. 29	2939	752	56	1432
Gray, James D., Arlington, Va., assignor of three-fourths to G. A. Sawyer and J. McConnell, Washington, D. C. Vending apparatus	462,253	Nov. 3	49	12, 13	57	561
Gray, James R., Ayer, Mass. Support for spinning-spindles	461,432	Oct. 20	1399	353	57	285
Gray, James R., Ayer, Mass. Support for spinning-spindles	461,882	Oct. 27	2182	538	57	441
Gray, John S., Sr., Passaic, N. J. Picker-stick-operating mechanism for looms	455,563	July 7	427	114	56	83
Gray, Lawrence B., Boston, Mass. Press for molding glass insulators	462,862	Nov. 10	1023	264	57	758
Gray, Lee L., Viola, Ark. Flood-gate	447,679	Mar. 3	645	160	54	1240
Gray, Leonidas and A. Y., Middletown Springs, Vt. Attachment for the separators of thrashing-machines	448,957	Mar. 24	2738	690	54	1665
Gray, Philander R. and P. R., Jr., Elizabeth, N. J. Pressure-filter	445,890	Feb. 3	616	151	54	633
Gray, R. A. (See De Puy, Louis J., assignor.)						
Gray, Richard E., Muncy, Pa., assignor to Gray Current Motor Company, Elgin, Ill. Water-wheel	447,725	Mar. 3	717	{ 179,	} 54	1253
Gray, Thomas F., Monroeville, Ohio. Grain and cockle separator	460,436	Sept. 29	2960	180		
Gray, Thomas H., Bermondsey, assignor to T. B. Randall, county of Middlesex, England, Refining linseed-oil	452,967	May 26	2466	740	56	1664
Gray, William, Hartford, Conn. Signal device for telephone pay-stations	454,470	June 23	1941	566	55	1542
Gray, William, Hartford, Conn. Signal device for telephone pay-stations	462,813	Nov. 10	945	246	57	743
Gray, William, assignor of one-half to C. Soby, Hartford, Conn. Telephone-toll apparatus	448,024	Mar. 10	1243	316	54	1361
Gray, William D., Milwaukee, Wis. Feed-regulator	459,075	Sept. 8	827	201	56	1233
Gray, William D., Milwaukee, Wis., assignor to E. P. Allis Company, of Wisconsin. Roller grinding-mill	444,348	Jan. 6	571	146	54	113
Gray, William D., Milwaukee, Wis., assignor to E. P. Allis Company, of Wisconsin. Roller grinding-mill	444,349	Jan. 6	573	146	54	114
Gray, William D., Milwaukee, Wis., assignor to E. P. Allis Company, of Wisconsin. Roller grinding-mill	444,350	Jan. 6	574	146	54	114
Gray, William D., assignor to E. P. Allis Company, Milwaukee, Wis. Support for shaking-screens	454,130	June 16	1423	373	55	1435
Gray, William D., assignor to E. P. Allis Company, Milwaukee, Wis. Support for shaking-screens	454,131	June 16	1424	373	55	1435
Gray, William D., assignor to E. P. Allis Company, Milwaukee, Wis. Support for shaking-screens	454,132	June 16	1425	373	55	1435
Gray, William D., assignor to Edward P. Allis Company, Milwaukee, Wis. Flour-packer	465,473	Dec. 22	2336	{ 599,	} 57	1609
Gray, William F., Chicago, Ill. Mail-box	465,697	Dec. 22	2704	600		
Gray, William S., Jersey City, N. J. Temporary binder	464,662	Dec. 8	1006	689	57	1678
Graybill, Nathaniel. (See Denny, Lewis, assignor.)				252	57	1337
Greathead, James H., Westminster, England. Tunneling apparatus	458,048	Aug. 18	1837	479	56	896
Green, A. J., et al. (See Buck and Kingslow, assignors.)						
Green, Aleck H. (See Downey and Green.)						
Green, Bernard R., Washington, D. C. Book-stack for libraries	466,033	Dec. 29	3268	{ 833,	} 57	1796
Green, Charles F., Worcester, Mass. Chimney-thimble	450,355	Apr. 14	1072	834		
Green, Daniel J., Fall River, assignor to G. Draper & Sons, Hopedale, Mass. Separator for ring-spinning frames	459,894	Sept. 22	2145	{ 263,	} 55	212
Green, David S., assignor to J. C. McCrory and W. P. Henze, Nashville, Tenn. Machine for generating illuminating-gas	456,116	July 14	1282	264		
Green, Elmer, North East, Pa. Adjustable balanced swinging gate	450,724	Apr. 21	1668	337	56	253
Green, Frank, Peoria, Tex. Corn-planting attachment for plows	453,922	July 14	1003	402	55	341
Green, George C., Prior's, Ga. Scooter and shovel-plow	457,047	Aug. 4	170	261	56	201
Green, George E. (See Miller, Marcus A., assignor.)				42	56	566
Green, George F., Kalamazoo, Mich., assignor to O. S. Kelly, Springfield, Ohio. Electric railway	465,407	Dec. 15	2237	574	57	1579
Green, George F., Kalamazoo, Mich., assignor to O. S. Kelly, Springfield, Ohio. Electrical railway	465,432	Dec. 15	2272	583	57	1587
Green, George W., Salem, Ohio. Car-coupling	454,864	June 30	2578	662	55	1667
Green, Henry, Hartford, Conn., assignor, by mesne assignments, to J. J. Tower, New York, N. Y. Spirit-level	449,609	Mar. 31	3797	953	54	1872
Green, Henry, Hartford, assignor to Acme Rule Company, Salisbury, Conn. Spirit-level	450,457	Apr. 14	1232	301	55	241
Green, Henry L., Jersey City, N. J. Lamp-burner	464,358	Dec. 1	557	136	57	1240
Green, James, Burwood, near Sydney, New South Wales. Opera-glasses	450,409	Apr. 14	1166	284	55	229
Green, James, Burwood, New South Wales. Lorgnette or opera-glasses	458,734	Sept. 1	283	69	56	1120
Green, John, assignor of one-half to W. L. Holman and J. McCord, Renovo, Pa. Manufacture of draw-bars	448,612	Mar. 17	2192	{ 548,	} 54	1553
Green, John, assignor of one-half to W. L. Holman and J. McCord, Renovo, Pa. Car-coupling	448,613	Mar. 17	2194	549		
Green, John, assignor of one-half to W. L. Holman and J. McCord, Renovo, Pa. Car-coupling	450,356	Apr. 14	1074	264	55	212
Green, John, assignor of one-half to W. L. Holman and J. McCord, Renovo, Pa. Making draw-bars	453,783	June 9	959	249	55	1338
Green, John, assignor of one-half to W. L. Holman and J. McCord, Renovo, Pa. Manufacture of draw-bars	456,699	July 28	2238	592	56	452
Green, John, assignor of one-half to W. L. Holman and J. McCord, Renovo, Pa. Manufacture of draw-bars	456,700	July 28	2239	592	56	452
Green, John, assignor of one-half to W. L. Holman and J. McCord, Renovo, Pa. Die for forging car-coupling hooks	456,892	July 23	2563	673	56	511
Green, John, assignor of one-half to W. L. Holman and J. McCord, Renovo, Pa. Car-coupling	457,048	Aug. 4	170	42	56	566
Green, John, assignor of two-thirds to D. R. Pfoutz, Renovo, Pa. Car-coupling	458,528	Aug. 25	2617	637	56	1050
Green, John, assignor of one-half to D. R. Pfoutz, Renovo, Pa. Car-buffer	458,532	Aug. 25	2622	638	56	1051
Green, John, assignor of two-thirds to J. Murphy and D. F. Spangler, Renovo, Pa. Metallic base for fence-posts	465,662	Dec. 22	2658	678	57	1669
Green, John, assignor of one-half to J. Ward and J. H. Shedd, Renovo, Pa. Lifting-jack	462,796	Nov. 10	912	238	57	737
Green, John H., Indianapolis, Ind. Music-writing attachment for type-writing machines	455,319	July 7	31	8, 9	56	9
Green, John H., assignor of one-half to G. F. McFarren, Bluffton, Ind. Bag-tie	466,301	Dec. 29	3683	941	57	1876

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Green, John H., assignor of one-half to W. R. and E. C. Beard, Indianapolis, Ind. Seal-ing-ring.....	455,397	July 7	159	40	56	34
Green, John J., Boonton, N. J. Type-writing machine.....	444,750	Jan. 13	1207	{ 313 314 }	54	244
Green, John J., Boonton, and G. C. Brown, Elizabeth, N. J. Clamp for electric wires.....	464,770	Dec. 8	1184	294	57	1369
Green, Joseph F., London, England. Life-boat.....	461,871	Oct. 27	2165	533	57	437
Green, Joseph R. (See Batchelder, William W., Jr., assignor.)						
Green, Joseph W., Jr. (See Moore, George C., assignor.)						
Green, Marion M., Lynchburg, Tenn. Harness-saddle.....	457,613	Aug. 11	1131	288	56	752
Green, Marion M., Lynchburg, Tenn. Combined buckle and snap-hook.....	457,614	Aug. 11	1132	289	56	753
Green, Robert G. (See Sutton, William H., assignor.)						
Green, Robert G., et al. (See Shafer, Joshua S., assignor.)						
Green, Robert W., et al. (See Emerson, Charles H., assignor.)						
Green, Robert W., St. Thomas, Canada. Telegraph-key.....	455,320	July 7	33	9	56	9
Green, Stith, Jackson, Miss. Nut-lock.....	465,760	Dec. 22	2798	716	57	1697
Green, Thomas, Newark, N. J. Picture-holder.....	458,711	Sept. 1	251	59	56	1113
Green, William H., et al. (See Kanfield, John E., assignor.)						
Green, William W., Chicago, Ill. Railway-car.....	447,053	Feb. 24	2535	630	54	1031
Green, William W., Chicago, Ill. Railway-car.....	447,054	Feb. 24	2536	630	54	1031
Green, William W., Chicago, Ill., assignor of one-half to F. H. Foster, Chattanooga, Tenn. } Bridge.....	458,161	Aug. 25	2006	{ 519 520 }	56	936
Greenamyer, Clarence V., assignor to Verner Wrench Car Mover and Power Manufactur- ing Company, San Francisco, Cal. Pivoted-jaw wrench.....	444,777	Jan. 13	1250	324	54	252
Greenamyer, Clarence V., assignor to Verner Wrench Car Mover and Power Manufactur- ing Company, San Francisco, Cal. Bench-clamp for pipe tongs and wrenches.....	444,778	Jan. 13	1251	324	54	252
Greenamyer, Clarence V., assignor to Verner Wrench Car Mover and Power Manufactur- ing Company, San Francisco, Cal. Adjustable pipe-wrench.....	444,779	Jan. 13	1252	325	54	252
Greenamyer, Clarence V., San Francisco, Cal., assignor to Verner Wrench Car Mover and Power Manufacturing Company, of California. Electric power-brake.....	458,249	Aug. 25	2153	527	56	963
Greene, Elias M. (See Francis, John C., assignor.)						
Greene, Elias M. (See Ginochio, Noel B., assignor.)						
Greene, Francis V. and M. A., Philadelphia, Pa. Window.....	458,392	Aug. 25	2407	586	56	1010
Greene, Gilbert F., Toccoa, Ga. Seal-lock.....	455,040	June 30	2923	744	55	1733
Greene, Henry S., Lawrence, Mass. Combined gigning and shearing machine.....	449,620	Mar. 31	3839	961	54	1879
Greene, James G. (See Müller and Greene.)						
Greene, John, executor. (See Palmer, Timothy G.)						
Greene, Lawrence P., Tyrone, assignor of one-half to E. Morrison, Albia, Iowa. Mail-bag crane.....	463,741	Nov. 24	2432	638	57	1045
Greene, Lemuel A., Arlington, S. C. Cotton chopper and cultivator.....	465,261	Dec. 15	1994	{ 510 511 }	57	1533
Greene, Mary A. (See Greene, Francis V. and M. A.)						
Greene, Mary A., Philadelphia, Pa. Game.....	445,016	Jan. 20	1673	430	54	343
Greene, Noble T., Providence, R. I. Safety valve-gear for steam-engines.....	444,699	Jan. 13	1120	289	54	229
Greene & Prunty. (See Prunty, John E., assignor.)						
Greene, Thomas D., Syracuse, N. Y. Hose-coupling.....	458,349	Aug. 25	2330	569	56	996
Greene, William A., Berlin, Canada. Combined wash-stand, desk, and closet.....	444,531	Jan. 13	867	225	54	181
Greenerd, Robert C., Boston, Mass. Machine for applying and removing collars from shafts.....	464,316	Dec. 1	493	118	57	1228
Greenfield, Edwin T., New York, N. Y. Electric-light fixture.....	459,088	Sept. 8	845	205	56	1236
Greenfield, Edwin T., assignor to Interior Conduit and Insulation Company, New York, N. Y. Making binding-posts.....	454,430	June 16	1882	492	55	1523
Greenfield, Edwin T., assignor to Interior Conduit and Insulation Company, New York, N. Y. Electrical fixture.....	459,704	Sept. 15	1841	463	56	1437
Greenfield, Edwin T., assignor to Interior Conduit and Insulation Company, New York, N. Y. Electric-light fixture.....	459,705	Sept. 15	1843	464	56	1438
Greenfield, Edwin T., assignor to Interior Conduit and Insulation Company, New York, N. Y. Machine for making paper tubing.....	461,676	Oct. 20	1844	456	57	367
Greenfield, Edwin T., assignor to Interior Conduit and Insulation Company, New York, } N. Y. Electrical conduit.....	461,677	Oct. 20	1846	{ 456 457 }	57	367
Greengard, Moses D., and F. Harris, St. Louis, Mo. Fare-collector.....	444,882	Jan. 20	1456	377	54	301
Greenhalgh, John B., Blackstone, Mass. Lamp-extinguisher.....	456,814	July 28	2432	641	56	488
Greenhoe, James J. (See Phillips and Greenhoe.)						
Greening, Nathaniel, Warrington, England. Loom for weaving wire.....	457,027	Aug. 4	143	35	56	561
Greening, Nathaniel, Warrington, England. Loom for weaving wire-cloth.....	462,002	Oct. 27	2370	587	57	477
Greenlaw, William P., assignor of one-half to Dow Manufacturing Company, Brockton, } Mass. Sewing-machine.....	458,363	Aug. 25	2352	{ 573 574 }	56	1000
Greenleaf, Oscar S., et al. (See Edwards, William C., assignor.)						
Greenlee, Nicodemus. (See Clark and Greenlee.)						
Greenlee, Ralph S., and E. G. Ström, Chicago, Ill. Machine for forming and polishing door-panels.....	454,730	June 23	2357	605	55	1620
Greenlee, William M., Pittsburg, Pa. Truss.....	451,817	May 5	571	140	55	688
Greenough, George G., U. S. Army. Recoil-check for gun-carriages.....	462,484	Nov. 3	416	101	57	629
Greenstein, Adolph. (See Dinsmore, Robert, assignor.)						
Greenwade, Moses M., Cincinnati, Ohio. Locomotive-signal.....	460,130	Sept. 29	2510	625	56	1578
Greenwald, Louis, Leadville, Colo. Necktie-fastener.....	460,204	Sept. 29	2614	652	56	1599
Greenwood, Guyon F. (See Riddell, John, assignor.)						
Greenwood, John J., et al. (See Baumgarten, Henry, assignor.)						
Greenwood, Michael, Bellevue, Del., assignor to Hall Steam Pump Company, Plainfield, N. J. Valve-gear.....	445,810	Feb. 3	505	121	54	610
Greenwood, Michael, Bellevue, Del., assignor to Hall Steam Pump Company, Plainfield, N. J. Valve-gear.....	446,406	Feb. 10	1490	367	54	807
Greenwood, Thomas E., Wauwatosa, Wis. Perfume holder and tester.....	455,321	July 7	34	10	56	9
Greer, Howard, Lake View, Ill. Railway-spike.....	455,900	July 14	971	253	56	195
Greer, John, assignor of one-half to O. W. Carr, Greensborough, N. C. Invalid's bracket.....	465,926	Dec. 29	3063	786	57	1758
Greer, Robert P. (See Mitchell, Kerr M., assignor.)						
Grefen, Heinrich, Oberhausen, Germany. Electrical lock.....	450,068	Apr. 7	616	{ 155 156 }	55	120
Gregg, Harriet L., executrix. (See Gregg, William L.)						
Gregg, Israel W., Chester, Ind. Combined cotton chopper and cultivator.....	452,183	May 12	1200	{ 303 304 }	55	808
Gregg, John A. (See McTavish, Duncan A., assignor.)						
Gregg, John A., assignor of one-half to J. H. Bloomfield, West Bay City, Mich. Hydrant.....	462,003	Oct. 27	2372	588	57	477
Gregg, William L., Philadelphia, Pa. Brick-kiln.....	460,637	Oct. 6	168	42, 43	57	35

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Gregg, William L., deceased, Philadelphia, Pa.; H. L. Gregg executrix. Making slate brick	451,818	May 5	572		55	688
Gregg, William L., deceased, Philadelphia, Pa.; H. L. Gregg executrix. Brick-kiln	462,215	Oct. 27	2703	{ 680 681 }	57	539
Gregory, Lucas J. (See Rodgers and Gregory.)						
Gregory, Albert J. (See Gatchell, Charles H., assignor.)						
Gregory, Charles P., Stillwater, Minn. Bit for horses	444,425	Jan. 13	698	182	54	146
Gregory, Clark B., Edgewater Park, N. J. Stove or furnace	462,079	Oct. 27	2478	615	57	497
Gregory, Daniel L., assignor of one-half to J. E. Frizen, Chicago, Ill. Separable square ..	459,361	Sept. 8	1277	315	56	1322
Gregory, Edward M. (See Ward and Gregory.)						
Gregory, Fred L., Niagara Falls, assignor of one-half to J. G. Rich, Auburn, N. Y. Self-winding electric clock	455,532	July 7	373	96	56	73
Gregory, George W. (See Chase, Henry A., assignor.)						
Gregory, George W. (See Eaton, Howard F., assignor.)						
Gregory, George W. (See Storer, Albert, assignor.)						
Gregory, John. (See Higgins and Gregory.)						
Gregory, John, Marion, Ohio. Steam-boiler attachment	462,314	Nov. 3	157	40	57	580
Gregory, Joseph P., La Fayette, Tex. Vehicle-brake	447,512	Mar. 3	408	99	54	1194
Gregory, Thomas, Southport, England. Registering and recording apparatus for tram-cars and omnibuses	444,883	Jan. 20	1458	{ 377 378 }	54	301
Greiner, Arthur, Chisnovoda, Austria-Hungary. Melting metal	445,056	Jan. 20	1738	447	54	355
Greiner, Jacob H., Lancaster, assignor to J. H. Cofrode, Philadelphia, Pa. Traveling crane ..	447,281	Feb. 24	2938	{ 430 731 }	54	1109
Greipp, Peter O., assignor to W. & H. Rowland, Philadelphia, Pa. Manufacture of springs ..	451,963	June 30	2771	706	55	1703
Greminger, Ulrich, St. Gall, Switzerland. Game apparatus	445,260	Jan. 27	2067	533	54	427
Grenelle, Linnie A. H., Hampton, Iowa. Window-curtain holder	464,499	Dec. 8	757	185	57	1288
Grenelle, Linnie A. H., Hampton, Iowa. Veil-holder	464,864	Dec. 8	1315	329	57	1396
Grenier, François M. J., Providence, R. I. Stop-motion for looms	462,924	Nov. 10	1136	{ 293 294 }	57	778
Gressom, James H., Knapp, Wis. Fifth-wheel	448,025	Mar. 10	1244	317	54	1361
Grether, John. (See Bender, Horace G., assignor.) (Reissue.)						
Gretsch, Frederick, Brooklyn, N. Y. Banjo	456,029	July 14	1169	306	56	230
Greville-Williams, Rupert, assignor to Albany Coal Tar Dye and Chemical Company, Albany, N. Y. Manufacture of mixed azo colors. (Reissue)	11,178	July 21	1978		56	394
Greville-Williams, Rupert, assignor to Albany Coal Tar Dye and Chemical Company, Albany, N. Y. Manufacture of azo colors. (Reissue)	11,179	July 21	1979		56	394
Grewe, Charles H. (See Huffman, Henry, Jr., assignor.)						
Grey, Elmer H. (See Seymour, William S., assignor.)						
Greywack, Henry L., West Troy, N. Y. Upright piano	446,595	Feb. 17	1778	439	54	878
Gribble, Theodore G., Yonkers, N. Y. Street-railway track	446,446	Feb. 17	1560	{ 383 384 }	54	834
Gribble, Theodore G., London, England. Constructing street-railway tracks	449,117	Mar. 31	2988	755	54	1723
Grieb, Joseph, Springfield, Ohio. Cheese-box	463,189	Nov. 17	1543	{ 402 403 }	57	867
Grier, Monroe. (See Ames and Grier.)						
Grier, Thomas J., Lead City, S. D. Ore-screen	448,762	Mar. 24	2448	612	54	1609
Grier, William W., Hulton, Pa. Fifth-wheel for vehicles	447,312	Mar. 3	46	12	54	1126
Grierson, John, Richmond, Mo. Tug	459,076	Sept. 8	829	201	56	1233
Grieves, Edward W. (See Cole and Grieves.)						
Griffeth, Stephen W., Alma, Mich. Car-coupling	465,322	Dec. 15	2092	534	57	1551
Griffin, Augustus P. (See Nason, Joseph H., assignor.)						
Griffin, Dennis, and J. A. Markoe, St. Paul, Minn. Clay-pulverizer	466,034	Dec. 29	3270	834	57	1796
Griffin, Edwin C., West Newton, Mass. Mill and power mechanism	449,118	Mar. 31	2988	755	54	1723
Griffin, Edwin C., West Newton, Mass. Mill and power mechanism	464,500	Dec. 8	758	185	57	1288
Griffin, Emery B., St. Joseph, Mo. Letter-box	465,524	Dec. 22	2431	620	57	1627
Griffin, Henry, et al. (See Newman and Oakley, assignors.)						
Griffin, James K., Brooklyn, N. Y. Pulverizing-mill	452,782	May 26	2163	542	55	1008
Griffin, James K., Brooklyn, N. Y. Vestibule-car	455,427	July 7	208	53	54	43
Griffin, John M., Utica, N. Y. Cigar-maker's stand or table	464,710	Dec. 8	1094	271	57	1353
Griffin, John S., Roslyn, Wash. Casting-machine	455,200	June 30	3201	{ 812 813 }	55	1787
Griffin, Lawrence J., Barre, Vt. Discharge-pipe for urinals	446,345	Feb. 10	1391	339	54	788
Griffin, Peter, Dayton, Ohio. Lifting-jack	463,385	Nov. 17	1861	486	57	928
Griffin, Thomas. (See Goebel and Griffin.)						
Griffin, William, et al. (See Ide, Fred B., assignor.)						
Griffin, William F. (See Dimity and Griffin.)						
Griffith, Charles H., assignor to Winchester Repeating Arms Company, New Haven, Conn. Cartridge-reloading implement	448,228	Mar. 17	1561	399	54	1433
Griffith, Edward M., et al. (See Davis, Hiram B., assignor.)						
Griffith, Humphrey G., Indianapolis, Ind. Signal-lantern	449,736	Apr. 7	143	35, 36	55	29
Griffith, John T. (See Harris, Griffith, and Harris.)						
Griffith, Wilfred S., Ambler, Pa. Feeder for tanks or reservoirs	447,406	Mar. 3	221	57	54	1159
Griffith, Wilfred S., Ambler, Pa. Feeder for tanks or reservoirs	447,407	Mar. 3	222	58	54	1159
Griffiths, Edgar B., et al. (See Griffiths, Herbert M., assignor.)						
Griffiths, George F., et al. (See Griffiths, Herbert M., assignor.)						
Griffiths, Herbert M., assignor of three-fourths to E. B. and G. F. Griffiths, New York, E. B. G., and L. T. Duryea, Glen Cove, N. Y. Metallic vessel	454,865	June 30	2579	{ 662 663 }	55	1667
Griffiths, James R., Allegheny, Pa. Trolley-pole stand	455,322	July 7	35	10	56	9
Griffiths, John, Brooklyn, N. Y. Making malt liquor	447,131	Feb. 24	2651	658	54	1054
Griffiths, John E., New York, N. Y. Toilet-cabinet	457,270	Aug. 4	545	143	56	631
Griffiths, Oliver W., Brooklyn, N. Y. Lubricator for cylinders	451,928	May 12	752	190	55	728
Griffiths, Oliver W., Brooklyn, N. Y. Clip for lubricators	464,119	Dec. 1	166	41	57	1169
Griffiths, Thomas, Sydney, New South Wales. Grease trap or interceptor	460,673	Oct. 6	222	56	57	46
Griffiths, Walter B., New York, N. Y. Device for laying off geometrical figures	462,126	Oct. 27	2564	637	57	513
Griffiths, William H., Medford, Mass. Autograph registering-machine	460,389	Sept. 29	2898	724	56	1633
Griggs, C. Robinson, et al. (See Fottrell, John, assignor.)						
Grigsby, Frank, Alma, Neb. Twine-cutter	459,283	Sept. 8	1156	282	56	1298
Grill, Enoch, Orono, Mich. Violin attachment	448,229	Mar. 17	1563	399	54	1434
Grilley, Charles T., Boston, Mass. Machine for forming washers	455,793	July 14	812	212	56	165
Grim, Abraham K. (See Moore and Grim.)						
Grim, Robert A., Springfield, Ohio. Stove	451,271	Apr. 28	2553	629	55	519
Grimes, Charles D., assignor to National Cash Register Company, Dayton, Ohio. Cash register and indicator	445,672	Feb. 3	264	69, 70	54	564
Grimes, Phillips B., Glenwood, Mo. Nut-lock	447,771	Mar. 10	805	300	54	1278

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Grimes, Phillips B., Glenwood, Mo. Nut-lock	465,849	Dec. 29	2940	752	57	1734
Grimm, Jacob, <i>et al.</i> (See Ruff, August, assignor.)						
Grimm, John H., and W. G. Pennypacker, Wilmington, Del. Apparatus for reburning animal charcoal	447,313	Mar. 3	47	12	54	1126
Grimme, Johannes, assignor to Bochumer Verein für Bergbau und Gusstahl-Fabrikation, Bochum, Germany. Fastening and support for railway-rails	462,080	Oct. 27	2479	615	57	497
Grimshaw, Thomas C., Pittsfield, Ill. Glazier's hammer	465,176	Dec. 15	1864	473	57	1508
Grimston, George S., Greenwich, assignor to Lucigen Light Company, Limited, Westminster, England. Vapor-burner. (Reissue.)	11,149	Mar. 10	1488	379	54	1411
Grinberg, Paul J., New York, N. Y. Gas-stove	449,776	Apr. 7	204	52	55	41
Grinberg, Paul J., New York, N. Y. Oil-stove	462,976	Nov. 10	1207	315	57	793
Grinnell, Edmund, New Bedford, Mass. Beam end and protector	456,950	Aug. 4	49	11	56	542
Griscom, William W., Haverford College, Pa. Secondary battery	453,695	June 9	818	208	55	1311
Grist, Benjamin W., Philadelphia, Pa. Hoisting machinery	444,592	Jan. 13	962	{ 249 250 }	{ 54 54 }	{ 199 199 }
Griswold, Abram M. (See Miller and Griswold.)						
Griswold, Frank B., Troy, N. Y. Machine for applying heads or hooks to wire bale-bands	464,663	Dec. 8	1008	{ 252 253 }	{ 57 57 }	{ 1337 1337 }
Griswold, George M., New Haven, Conn. Sash-fastener	453,339	June 2	252	67	55	1196
Griswold, Henry J., Leicester, England. Circular-knitting machine	448,337	Mar. 17	1768	{ 447 448 }	{ 54 54 }	{ 1473 1473 }
Griswold, John B., Zanesville, Ohio. Brick-kiln	447,151	Feb. 24	2718	674	54	1064
Griswold, John W., Troy, N. Y. Barbed-wire fence	465,638	Dec. 22	2625	669	57	1662
Griswold, John W., Troy, N. Y. Barbed-wire fence	465,639	Dec. 22	2626	669	57	1663
Griswold, John W., Troy, N. Y. Barbed-wire fence	465,640	Dec. 22	2626	670	57	1663
Griswold, John W., Troy, N. Y. Barbed-wire fence	465,641	Dec. 22	2627	670	57	1663
Griswold, John W., Troy, N. Y. Barbed-wire fence	465,642	Dec. 22	2627	670	57	1663
Griswold, John W., Troy, N. Y. Barbed-wire fence	465,643	Dec. 22	2628	670	57	1663
Griswold, John W., Troy, N. Y. Barbed-wire fence	465,644	Dec. 22	2628	671	57	1663
Griswold, John W., Troy, N. Y. Barbed-wire fence	465,645	Dec. 22	2629	671	57	1664
Griswold, Malcolm R., Hartford, Conn. Forming dental plates	465,076	Dec. 15	1687	430	57	1475
Griswold, Matthew and M., Jr., Erie, Pa. Kettle ear and cover	447,821	Mar. 10	899	224	54	1295
Griswold, Samuel, Davenport, Wash. Wind-engine	455,201	June 30	3204	813	55	1787
Groat, Louis W., and W. J. Van Vleck, Hudson, N. Y. Water-proof leggin	444,489	Jan. 13	805	209	54	168
Groff, Llewellyn, Minneapolis, Minn. Car-coupling	456,562	July 28	2008	{ 530 531 }	{ 56 56 }	{ 408 408 }
Grogg, Sylvester, St. Joseph, Mo. Washing-machine	464,069	Dec. 1	96	24	57	1155
Groh, Daniel W., Breathedsville, Md. Device for assisting vision	459,563	Sept. 15	1610	404	56	1393
Grohbrugge, Hinrich, New York, N. Y. Jewel-case	445,002	Jan. 20	1656	424	54	340
Grommet, Henry, Bronaugh, Mo. Carpet-fastener	451,043	Apr. 28	2177	537	55	446
Gronwald, Johann F. H. (See Neuhauss, Gronwald, and Oehlmann.)						
Gronwald, Johann F. H. (See Oehlmann and Gronwald.)						
Gronwald, Johann F. H., assignor of two-fifths to E. H. C. Oehlmann, Berlin, Germany. Sterilizing apparatus	455,923	July 14	1004	{ 261 262 263 }	{ 56 56 56 }	{ 201 201 201 }
Gronwald, Johann F. H., and E. H. C. Oehlmann, Berlin, Germany. Vessel for sterilizing and transporting milk	454,267	June 16	1626	427	55	1475
Gronwald, Johann F. H., and E. H. C. Oehlmann, Berlin, Germany. Sterilizing apparatus	459,284	Sept. 8	1157	282	56	1398
Gropp, John M., Wilmington, Del. Brake for street-cars	456,195	July 21	1409	374	56	287
Gros, Hermann C., Ober-Ursel, near Frankfort-on-the-Main, Germany. Sewing-machine	453,472	June 2	467	{ 120 121 }	{ 55 55 }	{ 1237 1237 }
Groshon, John A., New York, N. Y. Direct-acting steam-engine	444,828	Jan. 20	1331	{ 345 346 }	{ 54 54 }	{ 277 277 }
Groshon, John A., New York, N. Y. Direct-acting steam-engine	444,829	Jan. 20	1333	{ 346 347 }	{ 54 54 }	{ 278 278 }
Groshon, John A., New York, assignor of one-half to J. Lockwood, Jamaica, N. Y. Direct-acting steam-engine	446,582	Feb. 17	1762	{ 434 435 }	{ 54 54 }	{ 875 875 }
Groshon, John A., New York, assignor to M. H. Heath, Yonkers, N. Y. Pumping-engine	462,218	Oct. 27	2708	{ 682 683 }	{ 57 57 }	{ 540 540 }
Gross, Augustus, Sydney, New South Wales. Illuminating-balloon for advertising purposes at night	460,674	Oct. 6	223	57	57	46
Gross, Augustus, Sydney, New South Wales. Appliance for locking nuts on bolts	461,678	Oct. 20	1848	457	57	368
Gross, David. (See Schreiber, Philip J., assignor.)						
Gross, Jacob H., Niantic, Ill. House-door letter-box	461,475	Oct. 20	1528	374	57	308
Gross, James C., Scranton, Pa. Stopping and signaling mechanism for locomotives	446,288	Feb. 10	1297	317	54	769
Gross, John H., Norwalk, Ohio. Vehicle-wheel	451,858	May 5	624	155	55	697
Grosselin, Henry N., Sedan, France, assignor to C. Heap, Rochdale, England. Machine for napping cloth	459,521	Sept. 15	1542	{ 384 385 }	{ 56 56 }	{ 1380 1380 }
Grossenbach, Hugo, Brooklyn, and W. Panhorst, New York, N. Y. Carrier or racer for braiding-machines	445,315	Jan. 27	2137	553	54	443
Grosvenor, Charles F., Ludlow, and H. E. Holmes, Mittineague, Mass. Toilet-paper fixture	460,775	Oct. 6	381	93, 94	57	74
Grosvenor, George H., Hornellsville, N. Y. Wire fence	453,272	June 2	145	40	55	1175
Grosvenor, Thomas W. (See Murray, Thomas C., assignor.)						
Groswith, Henry, assignor to Kennedy-Groswith Electric Company, Philadelphia, Pa. Electric motor. (Reissue.)	11,210	Dec. 15	2292	588	57	1591
Grote, Ludwig, Dresden, Germany. Composition for treating articles made from paper	445,111	Jan. 20	1821	.....	54	371
Grote, Ludwig, Dresden, Germany. Manufacture of artificial stone	464,120	Dec. 1	168	.....	57	1169
Grottenrath, Fred, Milwaukee, Wis. Power-press	462,485	Nov. 3	417	101	57	629
Grout, Daniel F., Montpelier, Vt. Harness-tug	448,026	Mar. 10	1245	317	54	1361
Grout, William L., and E. L. Bowers, Orange, Mass. Turret-lathe	445,694	Feb. 3	294	77, 78	54	570
Grout, William L., and E. L. Bowers, Orange, Mass. Chuck for turning lathes	445,695	Feb. 3	298	78, 79	54	571
Grout, William L., and E. L. Bowers, Orange, Mass. Gripping device for lathes	445,696	Feb. 3	300	79	54	571
Grout, William L., and E. L. Bowers, Orange, Mass. Gripping device for lathes	445,697	Feb. 3	302	80	54	572
Grove, David, Ellsworth, Ill. Reel for winding and unwinding wire	444,219	Jan. 6	388	96	54	77
Grove, Willis S., East Harrisburg, Pa. Box-fastener	460,437	Sept. 29	2962	740	56	1665
Grover, Arthur C., assignor of one-half to E. J. Dickey, Willoughby, Ohio. Combined car and pipe coupling	449,219	Mar. 31	3143	793	54	1751
Grover, Leonard, Homer, Mich. Subaqueous tunneling-machine	444,244	Jan. 6	426	107	54	84
Grover, Henry M., Minneapolis, Minn., assignor to Eureka Car Coupler Company, Waterloo, Iowa. Car-coupling	459,904	Sept. 22	2168	545	56	1506
Groves, Fergus O. and H. H., Newton, Mass. Shive-extractor for carding-machines	457,512	Aug. 11	973	248	56	721
Groves, Henry H. (See Groves, Fergus O. and H. H.)						
Groves, John T. (See Smith, Daniel T., assignor.)						
Groves, John T., Cincinnati, Ohio. Carriage-top joint	444,120	Jan. 6	225	54	54	46

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Groves, William E., Boston, Mass. Time-alarm for culinary purposes.....	446,326	Feb. 10	1180	289	54	745
Grozea, Stelian. (See Szawinsky and Grozea.)						
Grubb, Isaac M., Glenville, Nebr. Comb-frame for bee-hives.....	445,429	Jan. 27	2304	598	54	476
Grubb, William S. (See Sprinkmann and Grubb.)						
Grubb, William S., Chicago, Ill. Applying non-conducting coverings.....	466,035	Dec. 29	3271	{ 834 835 }	57	1797
Grubbs, Albert M., Forest Grove, Oreg. Railway-switch.....	444,633	Jan. 13	1015	264	51	209
Grubbs, Albert M., Forest Grove, Oreg. Railway-switch.....	463,727	Nov. 24	2416	633	57	1042
Grubbs, Albert M., Forest Grove, Oreg. Railway-frog.....	463,728	Nov. 24	2417	634	57	1042
Gruellich, Friedrich W., assignor of one-half to J. G. Ries, Indianapolis, Ind. Stump-extractor.....	449,041	Mar. 24	2863	728	54	1690
Gruendler, Margaret. (See Gruendler, Otto and M.)						
Gruendler, Otto, assignor to M. Gruendler, St. Louis, Mo. Device for holding garments in position to be put on.....	462,380	Nov. 3	261	64	57	600
Grün, Johann F. C., Hamburg, Germany. Device for turning music-sheets.....	444,380	Jan. 6	621	161	54	122
Grund, Anton, Merrill, Wis. Lubricant.....	449,849	Apr. 7	315		55	63
Grundy, Alfred, et al. (See Raab, William, assignor.)						
Grunich, Edward, assignor to E. P. Donnell, Chicago, Ill. Device for clinching wire staples.....	447,314	Mar. 3	50	13	54	1127
Grunz, Carl G., Grand Island, Nebr. Fire-escape.....	449,475	Mar. 31	3602	907	54	1835
Grunz, Carl G., Grand Island, Nebr. Fire-escape.....	459,285	Sept. 8	1158	282	56	1298
Grünzweig, Carl, Ludwigshafen-on-the-Rhine, Germany. Paper-fastener.....	451,710	May 5	405	99	55	656
Gruschow, Robert H., Chicago, Ill. Electric signal.....	450,458	Apr. 14	1234	302	55	241
Grusonwerk. (See Röstel, Carl, assignor.)						
Grutling, Theodore, et al. (See Elgen, Magnus P., assignor.)						
Grützer, Eduard, Romagna Grube, near Loslau, and O. Koehler, Czernitz, Germany. Apparatus for treating zinc ores.....	453,806	June 9	986	257	55	1343
Gschwender, Henry, Oil City, Wis. Rye-extractor.....	453,185	June 2	13	4, 5	55	1151
Guarantee Trust and Safe Deposit Company, trustee. (See Lowe, Thaddens S. C., assignor.)						
Guastavino Fire Proof Construction Company. (See Guastavino, Rafael, assignor.)						
Guastavino, Rafael, New York, N. Y. Cohesive ceiling-floor.....	464,533	Dec. 8	854	{ 210 211 }	57	1307
Guastavino, Rafael, assignor to Guastavino Fire Proof Construction Company, New York, N. Y. Construction of buildings.....	464,562	Dec. 8	851	210	57	1306
Guelich, Carl, assignor to Guelich & Rockafellow, Ottawa, Kans. Burglar-alarm.....	464,865	Dec. 8	1316	329	57	1396
Guelich & Rockafellow. (See Guelich, Carl, assignor.)						
Guenther, Karl F. W., assignor of one-third to C. Davis-Carter, Pittsburg, Pa. Flute.....	444,830	Jan. 20	1336	347	54	278
Guenther, Rudolph, Kansas City, Mo. Fire-kindler.....	444,114	Jan. 6	213	51	54	43
Guenzel, Edward B., Tracy, Iowa. Constructing barb-wire fences, &c.....	452,002	May 12	867	221	55	750
Guericke, Frederik A. E. v., Djokjokarta, Java. Game apparatus.....	465,739	Dec. 22	2758	704	57	1690
Guernsey, Jane M. (See Guernsey, William B., assignor.)						
Guernsey, William B., assignor to J. M. Guernsey, Norwich, N. Y. Car-coupling.....	464,866	Dec. 8	1317	330	57	1396
Guerra, Elias R., Hacienda de San Matias, Jalisco, Mexico. Registering-gate.....	447,680	Mar. 3	646	{ 160 161 }	54	1240
Guerrant, George M. (See Parker and Guerrant.)						
Guess, Carl H., assignor to D. J. White and J. J. Kenny, Buffalo, N. Y. Corn-extractor ..	466,097	Dec. 29	3363	858	57	1816
Guffin, Lewis R., and J. A. Petrie, Gloversville, N. Y. Brush.....	454,521	June 23	2017	523	55	1556
Guichard, Alexandre A., Lieusaint, France. Machine for breaking stalks.....	448,230	Mar. 17	1564	399	54	1434
Guignard, Louis F., Lausanne, Switzerland. Home trainer for cyclists.....	463,862	Nov. 24	2623	683	57	1082
Guignès, Albert A. (See McIntyre, Frank P., assignor.)						
Guilbert, John M., assignor to W. H. Hart, Jr., Philadelphia, Pa. Buckle.....	456,488	July 21	1890	500	56	377
Guilbert, John M., assignor to W. H. Hart, Jr., Philadelphia, Pa. Necktie-fastener.....	459,362	Sept. 8	1278	315	56	1322
Guilbert, John M., assignor to W. H. Hart, Jr., Philadelphia, Pa. Garment-hook.....	461,332	Oct. 13	1216	309	57	243
Guild, Fred, Canton, assignor of one-half to L. M. Reynolds, Brockton, Mass. Automatic railway-gate.....	466,165	Dec. 29	3470	886	57	1837
Guild, George, assignor to Knoxville Car Wheel Company, Knoxville, Tenn. Steam-hammer.....	456,988	Aug. 4	97	24	56	552
Guild, George M., Boston, Mass. Upright-piano action.....	449,583	Mar. 31	3758	914	54	1864
Guild, George M., assignor to H. E. Guild, Boston, Mass. Upright-piano action.....	450,694	Apr. 21	1630	392	55	334
Guild, H. E. (See Guild, George M., assignor.)						
Guild, Henry G., New York, N. Y. Comb and the manufacture thereof.....	461,977	Oct. 27	2336	579	57	470
Guild, James F., Dundee, county of Forfar, Scotland. Float.....	461,383	Oct. 13	1313	{ 331 332 }	57	262
Guiley, Augustus H. R., assignor of two-thirds to W. B. Soliday, South Easton, and E. B. Cornell, Philadelphia, Pa. Electric block system for railways.....	454,344	June 16	1736	452	55	1496
Gullaunden, Louis, Jersey City, N. J., assignor to himself, J. L. Mason, and J. R. Naylor, Brooklyn, N. Y. Car-coupling.....	455,713	July 7	674	178	56	130
Guiltinan, Daniel C., Bennington, Vt. Bottle-stopper.....	454,731	June 23	2359	606	55	1620
Guinn, Jesse L., Neals, Miss. Cotton-cultivator.....	445,173	Jan. 27	1926	497	54	400
Guinnip, Arthur B., assignor of one-half to R. H. Arnold, Seneca Falls, N. Y. Cigar-clipper.....	449,073	Mar. 24	2911	738	54	1699
Gulick, Ashley J., and W. Humphrey, Clearfield, Pa. Knitting-machine.....	459,827	Sept. 22	2035	{ 510 511 }	56	1481
Gulley, C. D., et al. (See Baker, Owen T., assignor.)						
Gulley, Needham Y. (See Kearney, Benjamin S., assignor.)						
Gullick, James W. A., California, Ark. Stone-drill.....	456,951	Aug. 4	50	11	56	542
Gümbel, Carl, Krodorf, near Wetzlar, assignor to J. H. Zimmermann, Leipsic, Germany. Stringed instrument.....	460,863	Oct. 6	501	128	57	89
Gummer, Albert, Omro, Wis. Vehicle-spring.....	461,016	Oct. 13	737	190	57	150
Gunder, James H., and W. H. Pierce, Tolono, Ill. Automatic grain-weighing scales.....	452,029	May 12	909	{ 232 233 }	55	758
Gundermann, John C. (See Gundermann, Philip H., assignor.)						
Gundermann, Philip H., assignor of one-half to J. C. Gundermann, Chicago, Ill. Valve.....	456,288	July 21	1566	413	56	316
Gunderson, Gilbert S., Beloit, Wis. Transplanter.....	463,190	Nov. 17	1545	403	57	867
Gundlach, Ernst, Rochester, N. Y. Photographic objective.....	461,609	Nov. 20	1729	424	57	346
Gunn, Joseph H., McLean, N. Y. Vehicle-spring.....	462,873	Oct. 10	1041	269	57	761
Gunn, L. J., et al. (See Kilbourn, Washington H., assignor.)						
Gunnarson, Bengt. (See Gunnarson, Benjamin, assignor.)						
Gunnarson, Benjamin, assignor of one-half to B. Gunnarson, West Haven, Conn. Book-rest.....	465,262	Dec. 15	1996	511	57	1533
Gunnarson, Gustaf, San Francisco, Cal. Three-gripped self-adjusting pipe-wrench.....	460,230	Sept. 29	2649	660	56	1066
Gunning, James F. J., Toronto, Canada. Corset.....	452,968	May 26	2467	624	55	1068
Gunning, Josephus H., New York, N. Y. Surgical electrode.....	452,220	May 12	1254	317	55	819
Gunning, William H. (See Haynes and Gunning.)						
Gunnison, Joseph W., De Witt, Mich. Windmill.....	459,962	Sept. 22	2241	563	56	1520

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Gunther, George P. A., New York, N. Y. Aquarium	460,809	Oct. 6	428	106	57	85
Gunther, George P. A., New York, N. Y. Fish-tank or aquarium	460,810	Oct. 6	430	107	57	85
Gurd, William J., Sarnia, Canada. Diaphragm-meter	445,552	Feb. 3	37	10	54	519
Gurney, Charles H. (See Schlesinger, Louis, assignor.)						
Gurney, Warren J. (See Phare, John J., assignor.)						
Gurney, Worth H. (See Barrow, Thomas E., assignor.)						
Gurney, Worth H., et al. (See Williams, Hubbard D. B., assignor.)						
Gürtler, Gustav, Offenbach-on-the-Main, Germany. Adjustable candle-holder	450,884	Apr. 21	1927	472	55	389
Gustafson, Axel R., Ashland, Wis., assignor of one-fourth to W. F. Anderson, Negaunee, Mich. Thrashing-machine	446,643	Feb. 17	1854	460	54	892
Gustafson, Axel R., Ashland, Wis., assignor of one-fourth to W. F. Anderson, Negaunee, Mich. Thrashing-machine	446,644	Feb. 17	1856	460	54	892
Gustafson, Axel R., Ashland, Wis., assignor of one-fourth to W. F. Anderson, Negaunee, Mich. Thrashing-machine	446,645	Feb. 17	1858	461	54	893
Gustafson, Axel R., Milwaukee, Wis., assignor of one-half to W. F. Anderson, Negaunee, Mich. Thrashing-machine cylinder	466,098	Dec. 29	3363	859	57	1816
Gustafson, John, Rockaway, N. J., assignor of one-half to G. G. Hubbard, Washington, D. C. Type-setting machine	453,257	June 2	120	32, 33	55	1171
Gustafson, Oscar. (See Ohnstrano and Gustafson.)						
Gustin, Frank M. (See Searles, Jackson, and Gustin.)						
Gustin, Frank M., and A. P. Olson, Fort Madison, Iowa. Clamping-wedge	466,016	Dec. 29	3237	825	57	1790
Gutberlet, Johannes, Jersey City, N. J. Machine for sharpening drills	459,931	Sept. 22	2205	554	56	1513
Gutenkunst, William, assignor to Milwaukee Hay Tool Company, Milwaukee, Wis. Combined feed-cutter and corn husker	460,336	Sept. 29	2821	702	56	1639
Guthrie, Herbert, Levenshulme, near Manchester, England. Driving-chain gear	464,154	Dec. 1	220	52	57	1178
Gutmann, Frank J., G. Johnson, Milwaukee, Wis., and C. P. Johnson, St. Charles, Ill. Ice-cutting machine	455,323	July 7	36	10	56	10
Gutmann, Harry J., Des Moines, Iowa. Incandescent-lamp socket	447,315	Mar. 3	51	13	54	1127
Gutmann, Emil, New York, N. Y. Suspenders	445,553	Feb. 3	40	11	54	519
Gutmann, Henry, et al. (See Negraval, Louis A., assignor.)						
Gutmann, Ludwig, Pittsburg, Pa. Electro-magnetic cut-out	446,515	Feb. 17	1664	406	54	855
Gutmann, Ludwig, Pittsburg, Pa. Electric motor	446,864	Feb. 24	2208	549	54	972
Gutmann, Ludwig, Pittsburg, Pa. Alternating-electric-current heater	458,163	Aug. 25	2011	521	56	937
Gutmann, Ludwig, Pittsburg, Pa. Operating alternating electric motors	458,164	Aug. 25	2015	522	56	937
Gutmann, Ludwig, Pittsburg, Pa. Alternating or pulsating current motor	463,314	Nov. 17	1739	523	57	905
Gutmann, Ludwig, Fort Wayne, Ind. Electric motor	458,162	Aug. 25	2008	454	56	936
Gutmuths, Carl, Entritzsch, near Leipsic, Germany. Brush-making machine	450,863	Apr. 21	1893	455	55	383
Gutte, William F., assignor to J. Melger, A. W. and H. F. Schenuit, Baltimore, Md. Zither-piano	463,987	Nov. 24	2820	521	57	1119
Guttentag, Lewis. (See Frantz, Elias, assignor.)						
Guttmann, Leopold. (See Siemang and Guttmann.)						
Gutzler, Jacob, Faribault, and P. J. Gutzler, Kenyon, Minn. Whiffletree	458,454	Aug. 25	2493	607	56	1026
Gutzler, Philip J. (See Gutzler, Jacob and P. J.)						
Gutzman, William H., Berkeley, Cal. Hinge-sinker	453,045	May 26	2585	654	55	1091
Guy, Elisha A., Dowagiac, Mich. Gate-hinge	455,665	July 7	595	156	56	116
Guyonier, Gustavus A., Shreveport, La. Gate-latch	450,768	Apr. 21	1730	418	55	354
Guyott, Leziam F., Malone, N. Y., assignor to H. Cowan, Boston, Mass. Oilier	454,001	June 9	1241	323	55	1393
Guyton, James W., Crawford, Tex. Cotton-chopping machine	452,763	May 26	2166	542	55	1010
Gwin, Thomas J., assignor to Nevil & Brother, near Brookhaven, Miss. Curing sedge-grass for upholstery purposes	451,044	Apr. 28	2178		55	446
Gwinner, Lewis, Hamilton, Ohio. Caster	456,305	July 21	1588	420	56	320
Gysin, Martin, New York, N. Y. Shoe-horn and jack	457,115	Aug. 4	279	73	56	586
Haag, Gustave, Flushing, N. Y. Top	453,473	June 2	469	121	55	1237
Haake, Carl, Hanover, Germany, assignor to R. Thompson, Christ Church, New Zealand. Piano tuning-pin	461,217	Oct. 13	1051	266	57	209
Haarmann, William F. (See Keen and Haarmann.)						
Haas, Walter G., Dayton, Ohio. Roll-paper holder and cutter	449,158	Mar. 31	3048	770	54	1733
Haas, William J., St. Paul, Minn. Spool-holder	462,702	Nov. 10	766	199	57	707
Haberlin, Herman, assignor to Webster, Camp & Lane Machine Company, Akron, Ohio. Dash-pot for steam-engines	449,878	Apr. 7	351	89	55	70
Haberlin, Herman, assignor to Webster, Camp & Lane Machine Company, Akron, Ohio. Dash-pot for steam-engines	465,797	Dec. 22	2846	729	57	1707
Haberman, Frederick, New York, N. Y. Sheet-metal vessel	463,041	Nov. 10	1297	336	57	811
Haberthür, Benedikt, assignor of one-half to P. Saner, Breitenbach, Switzerland. Secondary electric-clock movement	456,325	July 21	1618	428	56	326
Haberthür, Robert, and J. M. Stowell, New York, N. Y. Wrench	448,958	Mar. 24	2739	691	54	1665
Habliston, Frederick L., Richmond, Va. Door-check	445,992	Feb. 10	798	193	54	676
Hacken, Charles T., Chicago, Ill. Nipple-holder	445,949	Feb. 3	704	172	54	651
Hacker, Anthony. (See Montgomery, Joseph N., assignor.)						
Hacker, Joseph C., Brooklyn, N. Y. Combined inkstand-receptacle and pad-holder	448,027	Mar. 10	1246	317	54	1361
Hackett, Fred. N., Detroit, Mich. Gig-saddle	461,384	Oct. 13	1315	332	57	262
Hackett, Harry B., Monon, Ind. Hammer	450,011	Apr. 7	537	134	55	105
Hackett, John, Oakland, Cal. Dock-scraper	463,353	Nov. 17	1809	472	57	917
Hackett, Owen, Lymansville, R. I. Tilt-up for fishing	446,596	Feb. 17	1779	440	54	878
Hackett, Seth, Bronson, Mich. Hand-planter	460,010	Sept. 22	2308	579	56	1533
Hackett, William S., Roanoke, Ind. Trunk	466,065	Dec. 29	3316	847	57	1807
Hackman, Amandes, Peoria, Ill. Car-coupling	454,133	June 16	1425	373	55	1436
Hadaway, John B., assignor of one-half to M. E. Briggs, Brockton, Mass. Machine for channeling and trimming boot-soles, &c.	449,247	Mar. 31	3183	803	54	1759
Hadaway, William S., Jr., trustee. (See Freeman, Walter K., assignor.)				804		
Hadaway, William S., Jr., trustee. (See Weller, Franklin A., assignor.)						
Haddick, John W. (See Ambrose and Haddick.)						
Haddick, John W. (See Wall and Haddick.)						
Haden, Thomas J., assignor to W. M. White, Utica, N. Y. Machine for forming and placing metal pieces on scale-board dishes	447,316	Mar. 3	52	13, 14	54	1128
Hadfield, Robert A., Sheffield, England. Cutting shells	455,816	July 14	858	225	56	173
Hadfield, Robert A., Sheffield, England. Manufacturing shells	458,165	Aug. 25	2017	523	56	938
Hadfield, Robert A., Sheffield, England. Steel or metallic alloy	461,333	Oct. 13	1217		57	243

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Hadley, Ames W., and J. Hunt, New Bedford, Mass. Game apparatus.....	450,781	Apr. 21	1754	426	55	358
Hadley, Charles E., New York, N. Y. Addressing-machine.....	449,320	Mar. 31	3327	839	54	1783
Hadley, Charles F., Chicopee, assignor to Overman Wheel Company, Boston, Mass. Velocipede.....	464,300	Dec. 1	474	113	57	1224
Hadley, Ethan, assignor to Lamb Knitting Machine Manufacturing Company, Chicopee Falls, Mass. Egg-beater.....	454,345	June 16	1739	453	55	1496
Hadley, Everest W., Corvallis, Oreg. Automatic electric switch-indicator.....	460,864	Oct. 6	503	{ 128 129 }	57	99
Hadlock, Alexander, Kalamazoo, Mich. Perpetual calendar.....	448,796	Mar. 24	2497	625	54	1619
Hadlock, Edson J., Big Spring, Tex. Spark-arrester.....	450,012	Apr. 7	538	135	55	105
Hadlock, William E., Wenham, Mass. Engine-indicator for steam-vessels.....	453,696	June 9	820	202	55	1311
Hadlock, William E., Wenham, Mass. Search-light.....	456,408	July 21	1757	464	56	352
Hadlund, Gustaf E., Council Bluffs, Iowa. Shoe-expander.....	446,063	Feb. 10	905	220	54	696
Haedicke, Hermann, Remscheid, Germany, assignor to C. L. H. de Hundertmark, Paris, France. Monkey-wrench.....	449,796	Apr. 7	240	61	55	48
Haegg, August, assignor to H. W. Price, Rockford, Ill. Base-ball glove.....	461,218	Oct. 13	1053	266	57	209
Haefley, W. W., <i>et al.</i> (See George, Albert F., assignor.)						
Haentze, Albert, Avondale, Ill. Coupling.....	454,866	June 30	2580	663	55	1667
Haerst, Peter, San Francisco, Cal. Stove-top.....	445,729	Feb. 3	351	91	54	581
Haeseler, Karl A. W. (See Moenning and Haeseler.)						
Hafey, Cuthbert J., Eureka, Kans. Car-coupling.....	452,372	May 19	1503	{ 372 373 }	55	876
Haff & Walbridge. (See Stepp, John P., assignor.)						
Hafner, Simon. (See Devinney and Hafner.)						
Hagan, Levi A., Little Rock, Ark., assignor of one-half to J. E. Barrett, Memphis, Tenn. Device for copying pictures.....	464,359	Dec. 1	557	136	57	1240
Hagarty, Michael, West Bay City, Mich. Street-sweeping machine.....	457,586	Aug. 11	1087	{ 277 278 }	56	744
Hagedorn & Merz. (See Morrison, John W., assignor.)						
Hagedorn & Merz. (See Sauber, Emil A., assignor.)						
Hagelberg, Wolff, Berlin, Germany. Picture-card.....	445,174	Jan. 27	1927	498	54	400
Hagemann, Otto C. (See Demeier and Hagemann.)						
Hagemann, Otto C., London, England, assignor to J. S. Kirk & Co., Chicago, Ill. Purifying and concentrating glycerine.....	453,834	June 9	1020	266	55	1350
Hagemann, Otto C., London, England, assignor to J. S. Kirk & Co., Chicago, Ill. Recovering glycerine from spent soap-lye.....	453,835	June 9	1021	.....	55	1350
Hagemann, Otto C., London, England, and E. K. Mitting, assignors to J. S. Kirk & Co., Chicago, Ill. Treatment of spent soap-lye.....	465,474	Dec. 22	2340	.....	57	1609
Hagen, Alfred L., Franklin, and F. E. Dyer, Mount Desert, Me. Automatic vehicle-brake.....	460,011	Sept. 22	2310	579	56	1533
Hagen, Arthur T., and D. M. Cooper, Rochester, N. Y. Mangle.....	451,479	May 5	50	13	55	588
Hagen, Ferdinand J., New York, N. Y., assignor to Eureka Cigar Machine Company, of New Jersey. Cigar-bunching machine. (Reissue.).....	11,150	Mar. 10	1491	{ 350 381 }	54	1412
Hagen, Ferdinand J., and L. Wieland, New York, N. Y., assignors to Eureka Cigar Machine Company, of New Jersey. Cigar-bunching machine.....	460,278	Sept. 29	2735	680	56	1622
Hagen, William. (See Reid, James, Jr., assignor.)						
Hagenbaugh, Dennis G., Crystal, Mich. Feed-rack.....	456,563	July 28	2010	531	56	408
Hager, Charles E. O., Hagersville, Canada. Machine for moistening postage-stamps.....	453,112	May 26	2703	681	55	1114
Hagerman, Frank. (See Chapman, Newton L., assignor.)						
Hagerman, George E., Brooklyn, N. Y. Artificial stone.....	454,346	June 16	1740	.....	55	1496
Haggerty, John, New York, N. Y. Furnace.....	465,646	Dec. 22	2629	671	57	1664
Haglund, John F. (See Chaney, Frank S., assignor.)						
Hagstedt, Ann O., New York, N. Y. Composition for exterminating insects.....	449,905	Apr. 7	394	.....	55	77
Hagström, Anders, Eslöf, assignor of one-half to C. Frost, Malmö, Sweden. Hygroscope.....	447,726	Mar. 3	720	180	54	1254
Hahn, Edward B. (See Carr, Hahn, and Jackson.)						
Hahn, Joseph J., Providence, R. I. Braid-spool.....	462,004	Oct. 27	2374	588	57	477
Hahn, Theodor, Stuttgart, Germany. Watchman's time-recorder.....	466,166	Dec. 29	3472	887	57	1837
Haigh, Benjamin, London, England. Expanding stopper.....	456,257	July 21	1514	401	56	306
Haight, Charles L., Pittsburg, Pa. Heater. (Reissue.).....	11,190	Sept. 15	1885	{ 474 475 }	56	1445
Haight, Henry J., New York, N. Y. Electrical transmission of telegraphic and time indications.....	454,867	June 30	2582	{ 663 664 }	55	1668
Haight, Henry J., New York, N. Y. Combined electric clock and thermoscope system.....	460,963	Oct. 13	657	{ 169 170 }	57	135
Haight, James R. (See Segur and Haight.)						
Haight, James R., Adrian, Mich. Store-service apparatus.....	447,178	Feb. 24	2760	682	54	1073
Haight, Levi A., Tyndall, S. D. Fire-escape.....	463,243	Nov. 17	1627	424	57	884
Haiman, Elias, Atlanta, Ga. Whiffletree.....	453,146	May 26	2758	694	55	1123
Hain, Charles W., Columbus, Ohio, assignor of one-half to I. Hain, New York, N. Y. Attachment for time-locks.....	466,135	Dec. 29	3429	878	57	1829
Hain, Isaiah. (See Hain, Charles W., assignor.)						
Hain, William T., Reading, Pa. Sifter.....	455,845	July 14	892	234	56	180
Hain, William T., Reading, Pa. Sifter.....	455,846	July 14	893	234	56	180
Haines, Burr A., Smithfield, N. J. Tenon-cutting machine.....	447,772	Mar. 10	806	200	54	1278
Haines, Fred A. (See Sautter, Robert, assignor.)						
Haines, Fred M., Fort Fairfield, Me. Planter.....	451,819	May 5	572	141	55	688
Haines, George B., Chicago, Ill. Locking-valve.....	462,639	Nov. 3	660	166	57	678
Haines, George W., Stockton, Cal. Traveling harvester.....	444,936	Jan. 20	1553	399	54	318
Haines, Joseph, <i>et al.</i> (See Robie, Henry W., assignor.)						
Haines, Samuel H., assignor of one-half to D. F. Corwin, Springboro, Ohio. Ironing-table.....	464,458	Dec. 1	690	169	57	1266
Haines, Robert D., assignor to Corning Glass Works, Corning, N. Y. Marine lens.....	447,727	Mar. 3	721	181	54	1254
Haines, Robert D., assignor of two-thirds to A. B. and A. A. Houghton, Corning, N. Y. Insulator.....	451,979	Apr. 28	2697	669	55	547
Hair, Christopher C., Farmerville, La. Cultivator, harrow, and seeder.....	450,150	Apr. 14	743	188	55	151
Haire, William H., assignor of one-half to G. K. Turner, Morristown, Tenn. Ratchet-wrench.....	449,476	Mar. 31	3603	907	54	1835
Haire, William H., assignor of one-half to R. Wood, Morristown, Tenn. Washing-machine.....	452,670	May 19	1978	496	55	964
Haish, Jacob, assignor to Haish Manufacturing Company, De Kalb, Ill. Barbed fence-wire.....	463,742	Nov. 24	2432	638	57	1045
Haish Manufacturing Company. (See Haish, Jacob, assignor.)						
Hake, Philipp, Hoboken, N. J. Illuminated embossed paper and producing the same.....	449,675	Apr. 7	44	11	55	10
Hakeman, George, <i>et al.</i> (See Daniels, James E., assignor.)						
Hakowessel, Reinhold, <i>et al.</i> (See Claussen, Edward E., assignor.)						
Halbe, Oscar J., assignor of one-half to H. Borsch, Chicago, Ill. Spectacles.....	460,576	Oct. 6	52	13	57	12

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Haldeman, Charles F., assignor of one-half to W. O. Thomas, Kansas City, Mo. Tongue-support	451,480	May 5	53	13	55	589
Haldeman, Ephraim A., Chicago, Ill. Door-hanger	446,516	Feb. 17	1666	407	54	855
Haldeman, Melville O., <i>et al.</i> (See Baird, James B., assignor.)						
Hale, Charles A., assignor to Time Electric Company, Cleveland, Ohio. Electric alarm-bell	462,381	Nov. 3	263	64	57	601
Hale, George C., Kansas City, Mo. Horse-collar	452,928	May 26	2394	605	55	1053
Hale, George C., Kansas City, Mo. Coupling for horse-collars	452,929	May 26	2395	606	55	1053
Hale, George C., and T. R. Tinsley, Kansas City, Mo. Tide and wave power	455,616	July 7	515	133	56	99
Hale, Henry S., Philadelphia, Pa. Car seat or cushion	456,764	July 28	2360	621	56	474
Hale, Henry S., assignor to Hale & Kilburn Manufacturing Company, Philadelphia, Pa. Folding bed	454,121	June 16	1408	368	55	1432
Hale, Henry S., assignor to Hale & Kilburn Manufacturing Company, Philadelphia, Pa. Folding bed	454,122	June 16	1410	368	55	1432
Hale, Henry S., assignor to Hale & Kilburn Manufacturing Company, Philadelphia, Pa. Car-seat	459,564	Sept. 15	1611	404	56	1393
Hale, Henry S., assignor to Hale & Kilburn Manufacturing Company, Philadelphia, Pa. Car-seat	459,578	Sept. 15	1634	409	56	1397
Hale, James W., Newburyport, Mass. Basin-coupling	451,324	Apr. 28	2628	649	55	534
Hale, John O. (See Johnson and Hale.)						
Hale & Kilburn Manufacturing Company. (See Bennett, Frederick, assignor.) (Reissue.)						
Hale & Kilburn Manufacturing Company. (See Fortiner, Benjamin F., assignor.)						
Hale & Kilburn Manufacturing Company. (See Hale, Henry S., assignor.)						
Hale, Thomas. (See Martin, Orien B., assignor.)						
Hale, William B., and R. E. Düringer; said Hale assignor to B. C. Evans, Fort Worth, Tex. Spark-arrester for smoke-pipes	448,918	Mar. 24	2681	675	54	1655
Hales, Burton F. (See Carroll and Hales.)						
Hales, Burton F., Chicago, Ill. Surgical pump	459,002	Sept. 8	707	173	56	1212
Hales, Nathan E., and L. F. Reese, Williamsport, Pa. Safety-pin	444,234	Jan. 6	412	102	54	81
Haley, Charles I. (See Freeman and Haley.)						
Halfpenny, Martin, assignor to C. V. Taylor & Co., Pontiac, Mich. Road-cart	454,347	June 16	1741	453	55	1496
Halfpenny, Martin, assignor to C. V. Taylor & Co., Pontiac, Mich. Fifth-wheel	458,549	Aug. 25	2644	{ 643 } { 644 }	{ 56 } { 56 }	{ 1056 } { 1056 }
Halfpenny, Martin, Pontiac, assignor to Floyd & Foster, Detroit, Mich. Horse-shield	459,383	Sept. 8	1319	330	56	1330
Halfpenny, Samuel C. (See Kelley and Woods, assignors.)						
Halkyard, William, Providence, R. I. Machine for setting lacing-hooks	454,114	June 16	1399	366	55	1430
Hall, Abbott L., <i>et al.</i> (See Cook, Moses G., assignor.)						
Hall, Albert F., Boston, Mass., assignor to George F. Blake Manufacturing Company, of New Jersey. Steam-pump	455,868	July 14	922	241	56	186
Hall, Albert F., Boston, Mass., assignor to George F. Blake Manufacturing Company, of New Jersey. Relief-valve for steam-cylinders	458,845	Sept. 1	462	111	56	1154
Hall, Allen G. (See Yoakum, Robert, assignor.)						
Hall, Alonzo J. (See Wilson, Thomas N., assignor.)						
Hall, Alva W., New York, N. Y. Automatic signal for railway-crossings	444,700	Jan. 13	1122	289	54	230
Hall, Arthur C., Hazel, S. D. Car-coupling	465,663	Dec. 22	2659	678	57	1669
Hall, Arthur W., Taunton, Mass. Whip-socket	454,624	June 23	2202	567	55	1588
Hall, Charles and C. E., New York, N. Y. Bolt-machine	447,110	Feb. 24	2621	{ 650 } { 651 }	{ 54 } { 54 }	{ 1048 } { 1048 }
Hall, Charles and C. E., New York, N. Y. Bolt or rivet machine	459,155	Sept. 8	962	234	56	1260
Hall, Charles E. (See Hall, Charles and C. E.)						
Hall, Charles F., Weston, Ohio. Slide for extension-tables	451,820	May 5	574	141	55	688
Hall, Charles F., Skaneateles, N. Y. Machine for refitting valves	453,001	May 26	2521	638	55	1078
Hall, Charles F., Skaneateles, N. Y. Machine for refitting valves	455,507	July 7	325	83	56	65
Hall, Charles F., Skaneateles, N. Y. Machine for refitting valves	463,787	Nov. 24	2492	650	57	1057
Hall, Charles T., and L. R. Farrow, Liberty Hill, Tex. Device for cooling milk and butter	450,864	Apr. 21	1895	{ 464 } { 465 }	{ 55 } { 55 }	{ 383 } { 383 }
Hall & Co., Charles E. (See Conkey, Edward L., assignor.)						
Hall, Cofran I., San Francisco, Cal. Hydraulic-elevator valve	463,042	Nov. 10	1297	336	57	811
Hall, Cofran I., San Francisco, Cal. Valve	465,095	Dec. 15	1726	438	57	1483
Hall, Cofran I., San Francisco, Cal. Valve for hydraulic elevators	466,231	Dec. 29	3566	913	57	1854
Hall Company of New Jersey, Thomas. (See Hall, Thomas, assignor.)						
Hall, Daniel, New York, N. Y. Wind-engine	457,272	Aug. 4	547	{ 143 } { 144 }	{ 56 } { 56 }	{ 634 } { 634 }
Hall, Daniel, New York, N. Y. Wind-engine	457,273	Aug. 4	549	144	56	634
Hall, De Witt C. (See Allen, Nelson R., assignor.)						
Hall, Edward H., <i>et al.</i> (See Tonns, Louis N., assignor.)						
Hall, Edwin W., Whitehall, N. Y. Key-tag	460,865	Oct. 6	507	129	57	100
Hall, Ernest A., and A. H. Hamilton, Lehigh, Iowa. Tug	446,677	Feb. 17	1909	474	54	902
Hall, Frank A. (See Tilley, Edwin F., assignor.)						
Hall, Frank E., Newton, Mass., assignor to Consolidated Fastener Company, Portland, Me. Button	445,523	Jan. 27	2439	635	54	500
Hall, Frank E., Newton, Mass., assignor to Consolidated Fastener Company, Portland, Me. Button	450,069	Apr. 7	618	156	55	120
Hall, Frederick J., <i>et al.</i> (See Crisp, James L., assignor.)						
Hall, George. (See Wharton, Bloomfield, assignor.)						
Hall, George E. (See States and Hall.)						
Hall, George F., Newark, N. J. Wrench	451,183	Apr. 28	2401	593	55	489
Hall, George L., Lowell, Mass. Electrical safety-switch	453,046	May 26	2587	654	55	1091
Hall, George T., Moravia, assignor of one-half to E. F. Spence, Los Angeles, Cal. Combined street-car fender and brake	446,227	Feb. 10	1182	289	54	745
Hall, George W. (See Munroe, William C., assignor.)						
Hall, George W., Bridgeport, Conn. Rein-support	459,522	Sept. 15	1543	385	56	1380
Hall, Harriet A. (See Hall, John A., assignor.)						
Hall, Henry O., Washington, D. C. Ground anchorage for fence or other posts, surveyors' pegs, &c.	461,753	Oct. 20	1962	487	57	389
Hall, Horace L., Manchester, N. H. Curtain-holding device	453,409	June 2	368	95	55	1216
Hall, James E., Bedford City, Va. Rein-holder	455,324	July 7	37	11	56	10
Hall, James T., Chicago, Ill. Railway cattle-guard	446,228	Feb. 10	1183	290	54	746
Hall, James T., Chicago, Ill. Surface cattle-guard	453,807	June 9	988	257	55	1343
Hall, James T., assignor to National Surface Guard Company, Chicago, Ill. Railway cattle-guard	453,808	June 9	989	257	55	1343
Hall, James T., assignor to National Surface Guard Company, Chicago, Ill. Railway cattle-guard	460,306	Sept. 29	2774	691	56	1629

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Hall, James T., assignor to National Surface Guard Company, Chicago, Ill. Railway sur- face cattle-guard.....	460,307	Sept. 29	2775	{ 691 692 }	56	1630
Hall, Jesse E., <i>et al.</i> (See Cook, Moses G., assignor.)						
Hall, Joel D., Stephens, Ark. Car-coupling.....	458,900	Sept. 1	553	134	56	1171
Hall, John A., assignor to H. A. Hall, Union, N. H. Heel-machine.....	447,317	Mar. 3	56	15	54	1128
Hall, John D., assignor to T. C. Balderston, Philadelphia, Pa. Thermometer-graduating machine.....	449,442	Mar. 31	3544	893	54	1824
Hall, John D., assignor to T. C. Balderston, Philadelphia, Pa. Thermometer-tube-filling apparatus.....	449,443	Mar. 31	3547	893	54	1824
Hall, John D., assignor to T. C. Balderston, Philadelphia, Pa. Thermometer-printing ma- chine.....	449,444	Mar. 31	3549	894	54	1825
Hall, John F., Sheffield, and J. Verity, Leeds, England. Construction of anchors.....	452,954	May 26	2443	616	55	1063
Hall, John W., Whitehaven, England. Wheel for velocipedes.....	447,822	Mar. 10	900	324	54	1295
Hall, Langley, Jr., Glendale, assignor of one-fourth to G. A. Taylor, Roseburg, Oreg. Car- axle.....	450,230	Apr. 8	879	218	55	176
Hall, Lee, St. Paul, Minn. Adjustable storm-sash and window-screen fastener.....	453,171	May 26	2827	709	55	1134
Hall, Levi L., Parkersburg, W. Va. Scoop.....	457,271	Aug. 4	546	143	56	634
Hall, Levi L., Parkersburg, W. Va. Fancet.....	464,019	Dec. 1	25	7	57	1141
Hall, Marquis L., and W. H. Eldridge, Omaha, Nebr. Permutation-lock.....	453,238	June 2	92	24	55	1166
Hall, Marquis L., and W. H. Eldridge, Omaha, Nebr. Permutation-lock.....	465,131	Dec. 15	1796	454	57	1495
Hall, Milton, San Francisco, Cal. Wall-protector and fender.....	459,251	Sept. 8	1105	270	56	1287
Hall, Moralis, Greenfield, Tenn. Car-coupling.....	456,409	July 21	1759	405	56	352
Hall, Orlando C., Boston, and E. Rasmussen, Lynn, Mass., assignors to Thomson Electric Welding Company, of Maine. Metallic wheel.....	452,840	May 26	2249	{ 564 565 }	55	1026
Hall, Orlando C., and E. Rasmussen, Lynn, Mass., assignors to Thomson Electric Welding Company, of Maine. Metallic wheel.....	452,841	May 26	2251	565	55	1026
Hall, Osborn B., Malden, Mass. Metal post.....	449,777	Apr. 7	205	53	55	42
Hall, Osborn B., Malden, Mass. Electric-wire-support bracket.....	462,315	Nov. 3	157	40	57	581
Hall, Samuel, East Orange, N. J. Workman's time-recorder.....	456,564	July 28	2011	531	56	408
Hall, Sammel G., Cohoes, N. Y. Machine for brushing fabrics.....	463,896	Nov. 24	2673	{ 696 697 }	57	1091
Hall, Sharon, Albany, N. Y. Fishing-rod support.....	448,028	Mar. 10	1946	317	54	1362
Hall Signal Company. (See Hall, William P., assignor.)						
Hall Signal Company. (See Stevens and Hovey, assignors.)						
Hall Steam Pump Company. (See Greenwood, Michael, assignor.)						
Hall, Thaddeus M. (See Jones, William W., assignor.)						
Hall, Thomas, Lyndhurst, N. J., assignor to T. Hall Company of New Jersey. Type-writing machine.....	453,593	June 2	647	{ 166 167 }	55	1270
Hall, William A., Ruskin, Nebr. End-gate.....	457,274	Aug. 4	551	144	56	635
Hall, William C., and W. U. Sweetser, Oblong, Ill. Log-turner for saw-mill carriages.....	446,346	Feb. 10	1392	340	54	788
Hall, William H., Tiffin, Ohio. Connecting-rod for brick-machines.....	448,231	Mar. 17	1565	400	54	1434
Hall, William H., Tiffin, Ohio. Tedder-frame and rake-head.....	448,232	Mar. 17	1566	400	54	1434
Hall, William P., Greenwich, Conn., assignor to Hall Signal Company, Portland, Me. Rail- way-signal.....	447,318	Mar. 3	58	16	54	1128
Hall, William L., Troy, N. Y. Pulley.....	449,676	Apr. 7	45	11	55	11
Hall, William P., Piqua, Ohio. Metallic railway-tie.....	462,900	Nov. 10	1087	282	57	770
Hall, William W., Elk City, Kans. Corn-harvester.....	444,157	Jan. 6	294	71	54	60
Hall, Willis E., Altoona, Pa. Steam-heating apparatus.....	451,929	May 12	753	190	55	728
Hall, Willis E., Altoona, Pa. Steam-heating apparatus.....	454,964	June 30	2772	707	55	1703
Hall, Willis E., Altoona, Pa. Steam-heating system.....	454,965	June 30	2774	707	55	1703
Hall, Zachary T., Philadelphia, Pa. Metal-cased bottle.....	449,119	Mar. 31	2992	756	54	1724
Hall, Zachary T., Philadelphia, Pa. Flue-stopper.....	463,043	Nov. 10	1300	336	57	812
Halladay, Lewis P., Chicago, Ill., assignor of two-thirds to W. H. and W. E. Halladay. Bicycle.....	451,428	Apr. 28	2779	{ 686 687 }	55	562
Halladay, Lewis P., Chicago, Ill., assignor of two-thirds to W. H. and W. E. Halladay. Bicycle.....	451,429	Apr. 28	2781	687	55	562
Halladay, William E., <i>et al.</i> (See Halladay, Lewis P., assignor.)						
Halladay, William H., <i>et al.</i> (See Halladay, Lewis P., assignor.)						
Hallahan, John, Dubuque, Iowa. Grain-measurer.....	460,577	Oct. 6	53	13	57	12
Hallas, James G., Waterbury, Conn. Manufacture of hose-couplings.....	454,647	June 23	2238	575	55	1595
Hallas, James G., Waterbury, Conn. Confling-sleeve.....	454,648	June 23	2240	575	55	1595
Hallas, James G., Waterbury, Conn. Hose-coupling.....	454,649	June 23	2241	575	55	1595
Hallbeck, Otto L., West Salem, Ill. Injector.....	450,885	Apr. 21	1928	473	55	389
Hallbeck, Otto L., West Salem, Ill. Injector.....	450,935	Apr. 21	1989	489	55	402
Halleck, Richard F., New York, N. Y. Washing preparation.....	449,879	Apr. 7	352		55	70
Hallenstein, Reuben, Melbourne, Victoria. Hatchway-door-operating device.....	460,638	Oct. 6	170	43	57	35
Hallenstein, Reuben, Melbourne, Victoria. Device for operating hatchway-doors.....	464,564	Dec. 8	857	211	57	1308
Hallenstein, Reuben, Melbourne, Victoria. Device for operating doors to hatchways.....	465,850	Dec. 29	2941	752	57	1734
Haller, Henry. (See Schneider, John B., assignor.)						
Hallett, Bertie, London, England. Coin-operated locking mechanism.....	451,556	May 5	168	41	55	612
Hallett, William A., Cambridge, Mass. Ship's table.....	453,716	June 9	854	220	55	1317
Hallett, William W., Lee, Ill. Device for instruction in reading and calculating.....	462,405	Nov. 3	306	76	57	609
Halliburton, William D., and C. T. Owens, Jacksonville, Mo. Steam cooking-vessel.....	463,238	Nov. 17	1600	417	57	878
Hallock, Daniel Y., Southold, N. Y. Device for removing foreign bodies from the eye.....	462,910	Nov. 10	1103	237	57	773
Hallock, Valentine H., Queens, N. Y. Weeding-machine.....	444,609	Jan. 13	983	{ 255 256 257 }	54	203
Hallowell, John K., Camden, N. J. Dust-collector.....	447,026	Feb. 24	2486	{ 618 619 }	54	1021
Hallowell, John K., Camden, N. J. Ore-separating apparatus.....	447,027	Feb. 24	2488	619	54	1022
Hallowell, John K., Camden, N. J. Ore drying and pulverizing apparatus.....	447,028	Feb. 24	2489	619	54	1022
Hallowell, John K., Camden, N. J. Concentrating apparatus.....	447,029	Feb. 24	2490	{ 619 620 }	54	1022
Hallowell, John K., Camden, N. J. Pulverizing-machine.....	447,030	Feb. 24	2493	620	54	1023
Hallqvist, Victor A., and G. E. Wennberg, Boston, Mass. Sofa-bed.....	453,474	June 2	469	121	55	1237
Hallwood, Henry S., Columbus, Ohio. Screen for gas-pipes.....	446,218	Feb. 10	1169	286	54	743
Halls Safe and Lock Co. (See Corty, William, assignor.)						
Hally, John. (See Roberts, George, assignor.)						
Halpine, Nicholas J., U. S. Navy. Marine torpedo.....	453,861	June 9	1047	274	55	1355
Halsey, Daniel, Jr., Newark, N. J. Apparatus for washing and dyeing.....	450,865	Apr. 21	1896	465	55	383
Halsey, James W. (See Stites and Halsey.)						
Halsey, Thomas P. C., Jersey City, N. J. Jurr-shaft for propellers.....	455,964	July 14	1071	289	56	212
Halstead, Andrew J., Utica, N. Y. Harrow attachment.....	452,784	May 26	2168	543	55	1010
Halstead, Charles L., La Crosse, Wis. Hose-band tightener.....	451,272	Apr. 28	2551	629	55	520

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Halsted, Samuel H., Cincinnati, Ohio. Combined shirt and drawers	447,408	Mar. 3	224	58	54	1160
Haly, Richard J. (See Goosen, Haly, and Kent.)						
Ham, Abby A., et al. (See Ham, John, assignor.)						
Ham, Charles W., Canaanville, Ohio. Hay-ricker	451,045	Apr. 28	2178	538	55	446
Ham, Drayton L., assignor of two-thirds to A. H. Hawkins and H. C. Moseley, Prosperity, S. C. Cotton-planter	453,973	June 9	1196	{ 312 313 }	55	1385
Ham, John, assignor to W. and F. S. Foote and A. A. Ham, Brooklyn, N. Y. Steam-boiler	458,049	Aug. 18	1838	479	56	896
Ham, Joseph S. (See Vinton, John F., assignor.)						
Hambay, James T., assignor to Union Switch and Signal Company, Pittsburg, Pa. Lock for signal-indicators	456,952	Aug. 4	50	12	56	542
Hambler, George E., Bury, England. Block-printing machine	452,038	May 12	932	{ 238 239 }	55	762
Hamblin, Silvanus, New Bedford, assignor of one-half to D. E. Damen, Plymouth, Mass. Loom-temple	445,336	Jan. 27	2171	562	54	449
Hamburger, Israel H., assignor to Pyrophoto Company, New York, N. Y. Photographing	457,712	Aug. 11	1272	329	56	780
Hamelberg, August, San Demingo, San Domingo, assignor of one-half to H. Franke, Brooklyn, N. Y. Extracting juice from sugar-scum	462,095	Oct. 27	2503		57	502
Hamelberg, August, Santo Domingo, Santo Domingo, assignor of one-half to H. Franke, Brooklyn, N. Y. Apparatus for distributing liquids	464,020	Dec. 1	26	7	57	1141
Hameleble, Adolph, Grand Rapids, Mich. Wrench	448,146	Mar. 10	1412	361	54	1396
Hamer, John, Providence, R. I. Band-cylinder for spinning and twisting machines	456,765	July 28	2361	621	56	475
Hamilton, Albert R., Burlington, Vt. Carpet-fastener	453,635	June 9	724	187	55	1293
Hamilton, Alexander R., Decatur, assignor to W. D. Barnett and G. L. Lukens, Clinton, Ill. Axle-bearing	447,513	Mar. 3	409	100	54	1195
Hamilton, Arthur H. (See Hall and Hamilton.)						
Hamilton, Cassius M., Chicago, Ill. Combined perpetual calendar and time-card	446,916	Feb. 24	2313	574	54	990
Hamilton, Charles. (See Karn, Edwin B., assignor.)						
Hamilton, Clarence J., Plymouth, Mich. Air-gun	455,942	July 14	1031	270	56	205
Hamilton, David A., Heppner, Oreg. Nippers	451,668	May 5	345	85	55	644
Hamilton, Ebenezer. (See Procutner, Frank G., assignor.)						
Hamilton, Emery M., New York, N. Y., assignor, by mesne assignments, to North American Machine Company, of West Virginia. Type-writing machine	444,490	Jan. 13	806	209	54	168
Hamilton, Emery M., New York, N. Y., assignor, by mesne assignments, to North American Machine Company, of West Virginia. Type-writing machine	444,491	Jan. 13	808	210	54	169
Hamilton, Frank C., St. Louis, Mo., assignor of one-half to G. W. Milles, Denver, Colo. Game apparatus	463,602	Nov. 17	2205	{ 581 582 }	57	994
Hamilton, George W., Boston, Mass. Transom-lifter	446,865	Feb. 24	2211	{ 549 550 }	54	972
Hamilton, Henry C., Reck Valley, Iowa. Machine for reeling barbed wire	464,965	Dec. 15	1483	373	57	1439
Hamilton, James B., London, England. Organ	461,242	Oct. 13	1087	275	57	217
Hamilton, James E., Chicago, Ill. Adjuster for electric-lamp reflectors	453,002	May 26	2522	638	55	1078
Hamilton, John H. (See Rollason and Hamilton.)						
Hamilton, John H., Detroit, Mich. Water-closet	453,809	June 9	990	257	55	1344
Hamilton, John H., Sandiacre, England. Governor	455,533	July 7	376	96	56	74
Hamilton, John H., Sandiacre, England. Governor	456,095	July 14	1250	329	56	246
Hamilton, John T., Crab Orchard, Mo. Neck-yoke clip	453,829	July 14	875	229	56	176
Hamilton, Louis H. (See Whittaker and Hamilton.)						
Hamilton, Martin. (See Turner, Hamilton, and Long.)						
Hamilou, Silas H., Philadelphia, Pa., assignor, by mesne assignments, to B. F. Randell, Hillsdale, Mich. Paper building material	449,737	Apr. 7	146	36	55	30
Hamilton, Silas H., Philadelphia, Pa., assignor, by mesne assignments, to B. F. Randell, Hillsdale, Mich. Paper building material	449,738	Apr. 7	147	36	55	30
Hamilton, Thomas H., assignor to C. E. Dickey, J. B. Smallwood, and C. H. Dickey, Baltimore, Md. Can-soldering machine	464,459	Dec. 1	691	170	57	1266
Hamilton, Walter W., Salem, Mass. Device for moistening and affixing postage-stamps	445,993	Feb. 10	799	194	54	677
Hamilton, Weston G., Detroit, Tex. Car-coupling	453,443	June 2	422	110	55	1227
Hamilton, William H., Brooklyn, N. Y. Obstetrical forceps	451,930	May 12	756	191	55	728
Hamilton, William R., et al. (See Carey, William, assignor.)						
Hamilton Wire Cloth Company. (See Strowbridge, Clarence S., assignor.)						
Hamm, William S. (See Seaver and Hamm.)						
Hamm, William S., Newton, assignor, by mesne assignments, to Staple Fastening Machine Company, Boston, Mass. Stapling-machine	447,681	Mar. 3	647	{ 161 162 }	54	1241
Hammack, Cicero T., Birmingham, Ala. Wrench	463,044	Nov. 10	1301	337	57	812
Hammann, Edward, Brooklyn, assignor to J. L. Mott Iron Works, New York, N. Y. Supply-connection for basins or baths	449,880	Apr. 7	353	89, 90	55	70
Hammarstrom, Olof, Worcester, Mass. Coffee-roaster	449,850	Apr. 7	316	81	55	63
Hammel, Louis, Detroit, Mich. Letter-box	454,732	June 23	2360	606	55	1620
Hammel, Riglander & Co. (See Faustmann, William, assignor.)						
Hammer, Emil G., Brooklyn, N. Y. Independent electric clock	444,433	Jan. 13	708	185	54	148
Hammer, Jens J., St. Louis, Mo. Adjustable scaffold-support	450,570	Apr. 14	1385	342	55	273
Hammer, Reinhold, Brooklyn, N. Y., assignor to J. Wetter, Memphis, Tenn. Consecutive-numbering machine	461,196	Oct. 13	1004	256	57	139
Hammer, Thorvald F., Branford, Conn. Boring and screw-cutting machine	445,175	Jan. 27	1928	498	54	401
Hammer, William H., Washington, Ohio. Flour or meal bin and sifter	444,351	Jan. 6	575	147	54	114
Hammerle, Franz, Cambridge, Mass. Pedal-action for pianos	447,319	Mar. 3	59	16	54	1129
Hammesfahr, Ernst, Solingen-Foche, Germany. Drop-hammer	463,574	Nov. 17	2155	569	57	985
Hammett, Clarence A., Newport, R. I. Carpet-sweeper	461,871	Oct. 27	2105	519	57	425
Hammett, James W., Eureka, W. Va. Agricultural implement	460,012	Sept. 22	2312	580	56	1534
Hammett, Mary C. (See Rogers, Winfield S., assignor.)						
Hammend, Charles P., Birmingham, Ala. Railway-tie	463,045	Nov. 10	1302	337	57	812
Hammend, Charles P., Atlanta, Ga. Railway-tie and fastening	463,046	Nov. 10	1303	{ 337 338 }	57	813
Hammond, Henry, New Haven, Conn. Wrench	449,410	Mar. 31	3491	878	54	1814
Hammond, Henry W., North Bergen, N. Y. Spring-bottom crate	447,320	Mar. 3	60	16	54	1129
Hammond, James B., New York, N. Y. Copy-holder	449,934	Apr. 7	432	108	55	84
Hammond, James B., New York, N. Y. Type-writing machine	458,260	Aug. 25	2170	531	56	966
Hammond, John. (See Stetsen, Hammond, Holman, and Harris.)						
Hammond, John L., et al. (See Warrand, Constantine B., assignor.)						
Hammond, Robert. (See Bedlington, Peter R., assignor.)						
Hammond, Walter J., and J. Gordon, Rio de Janeiro, Brazil. Ore-concentrator	450,013	Apr. 7	540	135	55	105
Hammond, Walter J., and J. Gordon, Rio de Janeiro, Brazil. Railway-spike	451,859	May 5	625	155	55	697

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Hammond, Wilberforce B., Boston, Mass., assignor to Higley Sawing and Drilling Machine Company, New York, N. Y. Machine for cutting metals	460,679	Oct. 6	230	58	57	47
Hamptden Envelope Company. (See Tyrrel, Alvin D., assignor.)						
Hampp, William. (See Gertenbach and Hampp.)						
Hampton, Benjamin. (See Leith and Hampton.)						
Hampton, Charles G. (See Lewis, James H., assignor.)						
Hampton, Frank, and G. L. Haner; said Haner assignor of one-half to M. C. Curl, John Day, Oreg. Cutting apparatus	464,603	Dec. 8	912	224	57	1319
Hampton, James, assignor of one-half to J. Motzer, Chicago, Ill. Pulley	457,644	Aug. 11	1171	300	56	760
Hampton, John A., Rosedale, Kans., assignor to Kansas City Hay Press Company, Kansas City, Mo. Baling-press	459,630	Sept. 15	1731	{ 434 435 }	{ 56 56 }	{ 1415 1415 }
Hampton, Lawson W., Elizabethton, Tenn. Harness	451,821	May 5	574	141	55	688
Hampton, Robert I., Athens, Ga. Pipe-coupling for steam-heating or other pipes	455,202	June 30	3205	814	55	1788
Hamrick, Graham H., Philippi, W. Va. Manufacturing butter	450,459	Apr. 14	1235	55	55	242
Hamrick, Harry M., Philadelphia, Pa. Coin-controlled annunciating-machine	452,785	May 26	2169	543	55	1010
Hamrick, Harry M., Philadelphia, Pa. Combined orange-knife and nut-pick	461,914	Oct. 27	2239	553	57	451
Hanauer, Joseph, Spokane Falls, Wash. Mail-bag	459,631	Sept. 15	1733	435	56	1415
Hance, Wilkerson K., and R. F. Redick, Spencerville, Ohio. Belt-fastener	463,664	Nov. 24	2312	607	57	1023
Hance, William A., assignor to Stover Bicycle Manufacturing Company, Freeport, Ill. Cycle-saddle	454,431	June 16	1884	492	55	1523
Hanchett, John, Big Rapids, Mich. Saw-swage	445,504	Jan. 27	2410	629	54	495
Hanchett, John L., Sioux City, Iowa. Device for cutting plaster-of-paris bandages, &c.	453,239	June 2	94	25	55	1166
Hancock, Charles, Philipsburg, Pa. Hasp and staple	446,173	Feb. 10	1098	269	54	730
Hancock, Clement A. (See Arrington, James C. and W. N., assignors.)						
Hancock, George, Providence, R. I. Elevator	457,645	Aug. 11	1171	300	56	760
Hancock, James T. (See Smith, Hugh and W. C. assignors.)						
Hancock, Lee B. (See Hancock, Thomas and L. B.)						
Hancock, Milton T., Shreveport, La. Rotary plow	463,047	Nov. 10	1304	338	57	813
Hancock, Thomas and L. B., Richmond, Va. Machine for forming cigar-fillers	458,271	Aug. 25	2204	539	56	972
Hancock, Thomas and L. B., Richmond, Va. Cigar-bunching machine	463,508	Nov. 17	2035	{ 533 534 }	{ 57 57 }	{ 962 962 }
Hand, Gideon D., and O. P. Sells, Chicago, Ill. Segmental resistance-board	448,338	Mar. 17	1770	448	54	1474
Hand, Porter B., Handsborough, Miss. Car-coupling	449,253	Mar. 31	3202	807	54	1762
Hand, Thomas A., Baltimore, Md. Can-soldering machine	444,631	Jan. 20	1337	347	54	278
Handeland, John A., Jackson County, Minn. Planter	454,348	June 16	1743	453	55	1497
Hanford, Orrin A., Bloomington, Ill. Sham bolster	456,410	July 21	1760	465	56	353
Handforth, Benjamin, Hoboken, N. J. Cabinet exhibitor for shade fabrics, wall-papers, &c.	444,701	Jan. 13	1123	290	54	230
Handy, Jerome B. (See Draper, Alvin L., assignor.)						
Handy, Thomas H. (See Tourné, Eugène J., assignor.)						
Haner, George L. (See Hampton and Haner.)						
Haney, Judson A., and F. J. O'Connell, Coal Grove, Ohio. Animal-trap	465,780	Dec. 22	2825	724	57	1702
Hanger, James E., Washington, D. C. Artificial leg	465,698	Dec. 22	2705	689	57	1679
Hangoczky, Jakob, Newark, N. J. Elevator	462,668	Nov. 3	693	{ 175 176 }	{ 57 57 }	{ 684 684 }
Hanika, Christian, Wichita, Kans. Rail-coupling for iron fences	448,029	Mar. 10	1247	318	54	1362
Hanimann, Charles, New York, N. Y. Tube eraser	447,873	Mar. 10	990	250	54	1312
Hankins, George B. (See Burr and Hankins.)						
Hanlen, William A., Renfrew, Pa. Pipe-lifter	463,048	Nov. 10	1306	339	57	814
Hanlon, John J., Chicago, Ill. File or portfolio	448,816	Mar. 24	2523	632	54	1624
Hanlon, John J., Philadelphia, Pa. Auxiliary engine	462,925	Nov. 10	1139	294	57	779
Hanlon, John K., Pennington, N. J. Feed apparatus for heating boilers	454,733	June 23	2361	606	55	1620
Hannmore, Hiram M., Santa Cruz, Cal. Non-heat-conducting composition	453,354	June 2	273	73	55	1199
Hanna, Andrew M., and L. J. Walker, Kosciusko, Miss. Combined fertilizer-distributor and planter	462,548	Nov. 3	515	126	57	649
Hanna, James P., assignor of one-half to T. E. Hastings, Wellington, Mich. Pump	444,434	Jan. 13	711	186	54	148
Hanna, William G., Belfast, Ireland. Washing-machine	464,633	Dec. 8	958	{ 236 237 }	{ 57 57 }	{ 1328 1328 }
Hanna, William H., Petersburg, Ill. Feeding device for sewing-machines	445,468	Jan. 27	2352	611	54	485
Hannah, George, Brooklyn, N. Y. Electric alarm for shaft-bearings	449,411	Mar. 31	3493	878	54	1814
Hannahs, Fred C., Kenosha, Wis. Child's bedstead	452,842	May 26	2252	565	55	1026
Hannahs, Fred C., assignor of one-half to J. A. Jackson, Kenosha, Wis. Crib	461,574	Oct. 20	1682	412	57	337
Hannan, William H., assignor to W. H. Hannan, Syracuse, N. Y. Thill-coupling	456,117	July 14	1284	337	56	253
Hanrahan, Joseph F., Detroit, Mich. Refrigerator car or building	453,047	May 26	2559	654	55	1091
Hanscom, Clifford, Baltimore, Md. Center-board	462,640	Nov. 3	661	167	57	678
Hanse, Philip, and B. Saner, Paterson, N. J. Clothes-line hanger	462,432	Nov. 3	346	85	57	616
Hansell, George B., and M. S. Gill, San Francisco, Cal. Grip for cable cars	458,574	Sept. 1	42	8, 9	56	1073
Hansen, Adolph, Brooklyn, N. Y. Shoe-tip	446,146	Feb. 10	1044	256	54	721
Hansen, Charles W., Chicago, Ill. Shears	460,704	Oct. 6	283	68	57	55
Hansen, Charles W., Chicago, Ill. Shears	460,705	Oct. 6	284	69	57	55
Hansen, Christian A., Charlevoix, Mich. Boom-locking chain	448,880	Mar. 24	2627	660	54	1643
Hansen, Florian E., Minneapolis, Minn. Pestle and mortar for dental use	462,703	Nov. 10	767	200	57	707
Hansen, Florian E., Minneapolis, Minn. Rubber-dam clamp	465,265	Dec. 15	2000	512	57	1534
Hansen, Hans C., Boston, Mass. Type-casting machine	458,050	Aug. 18	1839	480	56	897
Hansen, Hans J., Chicago, Ill. Musical instrument	459,932	Sept. 22	2206	554	56	1513
Hansen, James, Delavan, Wis. Vat and churn	449,321	Mar. 31	3330	840	54	1783
Hansen, Johan, assignor of one-half to J. E. Patterson, Detroit, Mich. Vehicle-axle nut	450,311	Apr. 14	1002	248	55	199
Hansen, Julius W., Humphrey, Nehr. Latch	450,290	Apr. 14	963	239	55	191
Hansen, Mathias N. (See Lorenson, John, assignor.)						
Hansen, Andrew P., Sergeant Bluffs, Iowa. Velocipede	456,989	Aug. 4	98	21	56	552
Hansen, C. C. (See Marr, Benjamin W., assignor.)						
Hansen, Christian R., Savanna, Ill. Gate for bridges	457,275	Aug. 4	552	145	56	635
Hansen, Dempsey B., Milwaukee, Wis. Saw-swage	447,111	Feb. 24	2626	651	54	1049
Hansen, Henry M., Milan, Minn. Spark-arrester	462,127	Oct. 27	2565	637	57	513
Hanson, John H., Oakland, Nebr. Harrow	463,718	Nov. 24	2404	630	57	1040
Hanson, Olaus, assignor of part to J. L. Yost, Toledo, and H. A. Lozier, Cleveland, Ohio. Bicycle	459,003	Sept. 8	708	174	56	1212
Hanson, Ole C., et al. (See Bingham, Martin, assignor.)						
Hanson, Paul, St. Paul, Minn. Grain-binder	452,843	May 26	2253	{ 565 566 }	{ 55 55 }	{ 1027 1027 }
Hanson & Van Winkle Company. (See Kessner, Otto A., assignor.)						
Hanson, Walter, London, England, assignor of one-half to F. Aldrich, Washington, D. C. Primary battery	452,303	May 12	1378	342	55	842

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Hapgood, Lyman S. (See Robinson, John R., assignor.)						
Happy Tidings Stove Company. (See Marsh, James A., assignor.)						
Harbach, Fred. (See Kessler, Louis, assignor.)						
Harbin, John W. (See Olney and Harbin.)						
Harbolt, Alfred S., <i>et al.</i> (See Weitmyer, William F., assignor.)						
Hard, John R., New York, N. Y. Galvanic battery	457,116	Aug. 4	279	73	56	587
Harden, Edward W. (See Partington and Harden.)						
Harden, Edward W. (See Ramsey, Harden, and Wilder.)						
Harden, Jesse M., Reisterstown, Md. Horse-detacher	446,866	Feb. 24	2213	550	54	973
Harder, William A., Lansingburg, assignor of one-half to C. A. Brown, Troy, N. Y. Treating tubular knitted fabrics	448,817	Mar. 24	2523	632	54	1625
Harders, Edward, and M. P. Fleischman, San Francisco, Cal. Cane, music-stand, and music-holder	448,185	Mar. 10	1477	376	54	1408
Hardie, Robert Brooklyn, assignor to H. C. Elliot, New York, N. Y. Reel and support	454,615	June 23	2188	564 565	55	1586
Hardie, Robert W., Albany, N. Y. Brush	445,649	Feb. 3	209	56	54	554
Hardie, Robert W., Albany, N. Y., assignor to S. C. Cobb, Janesville, Wis. Disk harrow	453,284	June 2	160	46	55	1178
Hardie, William C., Orange, N. J. Type-writing machine	450,701	Apr. 21	1641	394	55	336
Hardin, James F., <i>et al.</i> (See Watkins, Orla H., assignor.)						
Hardin, John M., Gest, assignor of one-fourth to G. W. Lawrence, Louisville, Ky. Vehicle-brake	464,966	Dec. 15	1481	373	57	1439
Harding, August, Oakland, Cal. Explosive engine	452,520	May 19	1750	440	55	920
Harding, Charles K., Atlantic, Iowa. Electric-railway system	451,637	May 5	298	72, 73	55	635
Harding, George C., Chicago, Ill. Desk-cabinet	452,671	May 19	1979	496	55	964
Harding, Legrand D., Colfax, Wash. Grinding-mill	450,014	Apr. 7	542	135	55	105
Harding, Legrand D., Colfax, Wash. Shoe for deformed feet	453,475	June 2	471	122	55	1237
Harding, Legrand D., Colfax, Wash. Differential in roller-mills	463,049	Nov. 10	1308	339	57	814
Harding, T. J. B. (See Sparham, Terence, assignor.)						
Harding, Thomas, and E. James; said James assignor to T. C. Johnson, Quincy, Ill. Tobacco-cutter	457,531	Aug. 11	1000	256	56	727
Harding, William P., Cambridge City, Ind. Printer's chase	449,851	Apr. 7	317	82	55	63
Hardison, George K., Gouldsborough, Me. Bucksaw	459,399	Sept. 15	1348	337	56	1344
Hardwick, Homer V., Sr., Conyers, Ga. Trussed structure	463,275	Nov. 17	1679	439	57	894
Hardwick, Penton A., Colorado City, Colo. Hydrant	458,575	Sept. 1	43	9	56	1074
Hardwick, Saunie W. (See Elam, Thomas, and Hardwick.)						
Hardwick, Saunie W. (See Thomas, Hardwick, and Elam.)						
Hardwick, William, Erie, Pa. Crank-shaft	465,699	Dec. 22	2706	690	57	1679
Hardy, Charles M. (See Sculthorp, Walter J., assignor.)						
Hardy, Edward J., Brooklyn, N. Y. Ice-machine	446,205	Feb. 10	1146	281	54	738
Hardy, Emery E., Newark, N. J. Bicycle	465,475	Dec. 22	2342	600	57	1609
Hardy, Frederick. (See Fitzsimons, Philip, assignor.)						
Hardy, George, Lawrence, Mass. Car-comping	459,041	Sept. 8	780	189	56	1225
Hardy, Isham T., St. Louis, Mo., assignor to Catlin Tobacco Company, of Missouri. Tobacco-packing machine	452,703	May 19	2031	509	55	975
Hardy, John. (See Benjamin, Marcus, assignor.)						
Hardy, John J., Lavonia, Ga. Harness	455,203	June 30	3208	814	55	1788
Hardy, John W., and W. O. L. Jewett, Shelby, Mo. Metallic railway-tie	465,263	Dec. 15	1998	511	57	1534
Hardy, Lewis W., Chicago, Ill., assignor to Roller Bearing Axle Company, Hillsborough, Wis. Anti-friction bearing	452,373	May 19	1506	373	55	876
Hardy, Lewis W., Lake View, assignor of one-fourth to M. E. Dayton, Chicago, Ill. Frictional driving-gear	462,433	Nov. 3	347	85	57	616
Hardy, Napoleon J. (See Lussier, John, assignor.)						
Hardy, Parrott M., and T. R. Boyd, Edwards' Mill, N. C. Cultivator	460,471	Sept. 29	3016	755	56	1675
Hare, Adams, Allegheny, Pa. Wheelbarrow	463,897	Nov. 24	2675	697	57	1091
Hare, Christopher C., Kansas City, Mo. Drafting-instrument	465,264	Dec. 15	1998	512	57	1534
Hare, James H., and E. P. Johnson, Brooklyn, assignors to E. & H. T. Anthony & Company, New York, N. Y. Photographic camera	461,905	Oct. 27	2225	550	57	449
Harford, Theodore W., <i>et al.</i> (See Connett, Matthew F., Jr., assignor.)						
Hargrave, Thomas C., Minneapolis, Minn. Hub-attaching device	457,815	Aug. 18	1448	377	56	823
Hargrave, Thomas C., assignor of one-half to J. W. Cobb, Minneapolis, Minn. Electric matrix-making machine	447,321	Mar. 3	61	17	54	1129
Hargrave, Thomas C., assignor of one-half to J. W. Cobb, Minneapolis, Minn. Matrix-making machine	447,449	Mar. 3	291	74	54	1172
Hargrave, Thomas C., Minneapolis, assignor to Minnesota Patent Sewer Pipe Company, Hennepin County, Minn. Machine for making sewer-pipe	450,583	Apr. 14	1401	345 346 409 410	55	277
Hargreaves, George, J. P. Scranton, and E. W. Porter, Detroit, Mich. Carburetor	459,579	Sept. 15	1635	410	56	1398
Hargreaves, Henry, London, county of Middlesex, England. Mechanical toy	445,554	Feb. 3	42	11	54	519
Haring, George T., Brooklyn, N. Y. Machine for screening shot	446,867	Feb. 24	2214	550	54	973
Harlan, Ira W. and W. A., Momence, Ill. Wagon end-gate	463,276	Nov. 17	1680	439	57	894
Harlan, Samuel C., Lake City, Minn. Dust-pan	450,670	Apr. 21	1597	384	55	328
Harlan, Will A. (See Harlan, Ira W. and W. A.)						
Harley, Millard F., Philadelphia, Pa. Baking-pan	457,775	Aug. 18	1384	358	56	811
Harlow, Charles F., Boston, assignor to E. E. Bartlett, Hyde Park, Mass. Fastening for reins	457,532	Aug. 11	1001	256	56	727
Harlow, Ivory W. (See Walker and Harlow.)						
Harlow, Lucius, Holyoke, Mass. Automatic stop mechanism for paper-feeding machines	446,678	Feb. 17	1910	475	54	902
Harman, Ananias, Roann, Ind. Saw setting and indicating device	447,322	Mar. 3	66	18	54	1130
Harman, Charles H., <i>et al.</i> (See Morrell, Robert, assignor.)						
Harman, Stephen S., New York, N. Y. Bowling-ball	447,011	Feb. 24	2452	611	54	1016
Harmer, Joseph M., Philadelphia, Pa. Folding umbrella	455,591	July 7	477	388	56	92
Harmon, Lois, assignor of one-half to D. T. Denmead, Marshalltown, Iowa. Corset	454,167	June 16	1479	389 388	55	1446
Harmon, Milford. (See Finch, John M., assignor.)						
Harmon, Orlin E., Gobleville, Mich. Kettle-cover	450,231	Apr. 14	860	219	55	176
Harmon, George A. (See Lester, Charles, assignor.)						
Harms, John M., assignor of one-half to W. W. Battin, Port Clinton, Ohio. Clothes-drier	455,325	July 7	38	11	56	10
Harmsen, Hans C. W., Hamburg, Germany. Recovering tin from tin-scrap	463,112	Nov. 10	1420		57	836
Harnden, Charles H. (See Harnden, Henry H. and C. H.)						
Harnden, Henry H. and C. H., Merriman, Nebr. Draft-equalizer	462,406	Nov. 3	307	76	57	609
Harness, Cornelius B., London, England. Electrical apparatus for surgical purposes	453,476	June 2	473	122 123	55	1238
Harney, George S. (See Rogers, George R., assignor.)						
Harnish, Lewis, Parkersburg, W. Va. Window-shade bracket	450,070	Apr. 7	619	156	55	120
Harnish, Zachariah T., Water Street, Pa. Draft-bail	448,030	Mar. 10	1249	318	54	1362

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Harnsberger, Audley E., Staunton, Va. Type-writing machine.....	447,773	Mar. 10	808	{ 200 201 202 }	54	1278
Harp, Charles A., Rice, Tex. Chicken-coop.....	448,959	Mar. 24	2741	691	54	1666
Harper, Edward, and P. G. Metzler, Leadville, Colo. Flange-wrench.....	406,232	Dec. 29	3567	913	57	1855
Harper, George W. (See Beyer and Harper.)						
Harper, James M., Peoria, Ill. Strip-ticket.....	444,149	Jan. 6	281	67	54	57
Harper, James M., Peoria, Ill. Sand-box for street-cars.....	458,166	Aug. 25	2018	524	56	938
Harper, James P., Kansas City, Mo. Elevated railway.....	458,846	Sept. 1	463	111	56	1154
Harper, John. (See Harper, Thomas, assignor.)						
Harper, Lawrence A., assignor to J. Miller, Russellville, Ky. Churn.....	445,272	Jan. 27	2082	537	54	430
Harper, Lewis G., West Chester, Pa. Spoke-socket.....	459,286	Sept. 8	1159	282	56	1298
Harper, Thomas, Westchester, assignor to J. Harper, Brooklyn, N. Y. Type for printing lamp-shades.....	453,770	June 9	932	242	55	1332
Harper, Thomas, Westchester, assignor to J. Harper, Brooklyn, N. Y. Type for printing lamp-shades.....	453,771	June 9	933	242	55	1333
Harper, Thomas, Westchester, assignor to J. Harper, Brooklyn, N. Y. Type for printing lamp-shades and analogous articles.....	453,772	June 9	934	{ 242 243 244 }	55	1333
Harper, Thomas, Westchester, assignor to J. Harper, Brooklyn, N. Y. Printing-machine.....	453,773	June 9	936	{ 243 244 }	55	1333
Harper, Thomas, Westchester, assignor to J. Harper, Brooklyn, N. Y. Type for printing lamp-shades.....	454,868	June 30	2586	664	55	1668
Harper, Thomas V. (See Connable and Harper.)						
Harper, William D., Quanah, Tex. Sully.....	456,565	July 28	2012	532	56	408
Harper, William E., Chicago, Ill. Wire-stapling machine.....	445,139	Jan. 20	1862	{ 482 483 484 }	54	379
Harper, William E., Chicago, Ill. Wire-stapling machine.....	445,140	Jan. 20	1866	{ 483 484 }	54	380
Harpold, Adam, assignor of one-half to T. M. Moran and G. L. Hutchinson, Colton, Cal. Wheeled road-scraper.....	458,455	Aug. 25	2494	607	56	1026
Harp, Jacob, San Fernando, Cal. Fruit-pitting machine.....	464,128	Dec. 1	177	43, 44	57	1171
Harr, Dock, D., Belmont, Iowa. Game-board.....	464,098	Dec. 1	140	34	57	1163
Harrah, Philip J., Bloomfield, Ind., assignor to S. W. Axtell. Thill-support.....	455,204	June 30	3209	814	55	1789
Harreld, Anderson F. (See Harreld, Benjamin E. and A. F.)						
Harreld, Benjamin E. and A. F., Hallowell, Kans. Sawing-machine.....	445,505	Jan. 27	2412	629	54	495
Harrell, Albert S., et al. (See McKee, George H., assignor.)						
Harrell, James L., Palmyra, N. C. Seeding-machine.....	461,476	Oct. 20	1529	374	57	308
Harrell, William H. (See Goss and Harrell.)						
Harriman, Frank P., Malden, Mass. Pillow-sham holder.....	453,582	June 2	629	160	55	1266
Harrington, Charles, Bartlett, Tex. Car-coupling.....	459,547	Sept. 15	1584	397	56	1388
Harrington, George W., Wakefield, Mass. Manufacture of lead-lined iron pipe.....	456,927	July 28	2630	689	56	524
Harrington, Samuel H., Binghamton, N. Y. Car coupling and buffer.....	455,326	July 7	39	11	56	10
Harrington, Samuel H., Columbus, Ohio. Fire-extinguisher for car-heaters.....	456,289	July 21	1567	414	56	316
Harriott, George, assignor to Gendron Iron Wheel Company, Toledo, Ohio. Mud-guard for bicycles.....	458,806	Sept. 1	386	93	56	1139
Harris, Alfred E., London, England. Lamp-wick.....	452,103	May 12	1064	269	55	783
Harris, Alfred E., London, England. Lamp-wick.....	463,277	Nov. 17	1681	439	57	894
Harris, Andrew J., Chicago, Ill. Dental-engine head.....	460,795	Oct. 6	412	101	57	81
Harris, Anthony, Middlesbrough, England. Appliance for playing games of chance.....	455,100	June 30	3028	770	55	1754
Harris, Barney. (See Coleman, Joseph E., assignor.)						
Harris, Benjamin F., Jr., Champaign, Ill. Stereotype plate and base with locking device.....	462,764	Nov. 10	860	225	57	725
Harris, Bradner L. (See Kennedy and Harris.)						
Harris, Carl C., et al. (See Gale, Cowles, and Davies, assignors.)						
Harris, Charles E., Winnipeg, Canada. Portable fence.....	459,287	Sept. 8	1161	283	56	1299
Harris, Charles P., San Francisco, Cal. Game-puzzle.....	444,352	Jan. 6	576	147	54	114
Harris, Charles P., San Francisco, Cal. Game-puzzle.....	452,642	May 19	1940	487	55	957
Harris, Charles R., Williamsport, Pa. Clasp for suspenders.....	444,353	Jan. 6	577	148	54	115
Harris, Charles R., Williamsport, Pa. Clasp for suspenders.....	448,519	Mar. 17	2039	510	54	1524
Harris, Charles R., Williamsport, Pa. Suspenders-clasp.....	451,046	Apr. 28	2180	538	55	446
Harris, Charles R., Williamsport, Pa. Suspenders-buckle.....	452,374	May 19	1507	373	55	877
Harris, Charles R., Williamsport, Pa. Suspenders-buckle.....	453,113	May 26	2704	681	55	1114
Harris, Charles R., Williamsport, Pa. Clasp for suspenders. (Reissue).....	11,187	Sept. 1	692	169	56	1201
Harris, Charles W., et al. (See Thiel, Max, assignor.)						
Harris, Christopher C., Missoula, Mont. Gage.....	464,867	Dec. 8	1320	330	57	1397
Harris, Elmo G., Rob Roy, Ark. Log raft.....	455,617	July 7	517	133	56	99
Harris, Fradelshau. (See Greengard and Harris.)						
Harris, Frank H., Toledo, Ohio. Toy.....	459,580	Sept. 15	1638	410	56	1398
Harris, Frank H., Toledo, Ohio. Wagon running-gear.....	463,370	Dec. 15	2185	560	57	1568
Harris, George A., Racine, Wis. Harness attachment.....	448,763	Mar. 24	2449	612	54	1610
Harris, George L., Buffalo Bluff, Fla. Fruit-cleaning apparatus.....	455,564	July 7	429	114	56	83
Harris, George W., Mount Zion, Ill. Heater.....	461,017	Oct. 13	737	190	57	150
Harris, Henry, Reading, Pa. Roll for utilizing old rails.....	451,002	Apr. 21	2115	521	55	426
Harris, Henry E., Rochester, N. Y. Life-guard for railway-motors.....	462,814	Nov. 10	946	246	57	743
Harris, Hiram W. (See Beyer, George W., assignor.)						
Harris, Hiram W. (See Beyer and Harper, assignors.)						
Harris, Jacob J., Highland, Ohio. Device for holding horses.....	444,387	Jan. 6	630	163	54	124
Harris, James A. (See Rowell, William M., assignor.)						
Harris, James A., Nickelsville, Va. Washing-machine.....	450,571	Apr. 14	1385	342	55	273
Harris, James W. (See Stetson, Hammond, Holman, and Harris.)						
Harris, James W., and T. J. Thomas, San Francisco, Cal. Sectional rope-sheave.....	449,322	Mar. 31	3331	{ 840 841 }	54	1783
Harris, John B., J. T. Griffith, and T. B. Harris, Wilkes-Barre, Pa. Safety-lamp.....	444,435	Jan. 13	712	186	54	149
Harris, John C. (See Gärtner and Harris.)						
Harris, John F. (See Mickle, James, assignor.)						
Harris, John F., Fort Edward, N. Y. Metallic railway-tie.....	461,261	Oct. 13	1112	283	57	221
Harris, John H., Iola, Kans. Ice-cream freezer.....	463,709	Nov. 24	2388	626	57	1037
Harris, Jonathan, and G. Wass, Painsville, Ohio. Making anti friction compositions.....	457,417	Aug. 11	824	.....	56	693
Harris, Joseph A., et al. (See Fongere, Angus, assignor.)						
Harris, Joseph G., near Sedalia, Mo. Fruit-gatherer.....	452,704	May 19	2033	509	55	976
Harris, Lander S., Detroit, Mich. Regulator for electric motors.....	446,229	Feb. 10	1184	290	54	746
Harris, Levi, Kalamazoo, Mich. Fire ladder and truck.....	455,485	July 7	294	74	56	59
Harris, Lorenzo H. (See Bowes and Harris.)						
Harris, Louie J., Boston, Mass. Art of and means for securing the roof-tin of cars upon the eaves-molding boards.....	451,243	Apr. 28	2503	617	55	510

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Harris, Louie J., Boston, Mass. Railway-car	451,244	Apr. 28	2504	617	55	510
Harris, Louie J., Boston, Mass. Railway-car	453,594	June 2	649	167	55	1270
Harris, Mary E., Camden, N. J. Sewing-stand	448,484	Mar. 17	1994	499	54	1515
Harris, Nelson H., Vinita, Indian Ter. Plow	455,830	July 14	876	{ 229 230 }	56	176
Harris, Noah, Indianapolis, Ind. Axle-collar	451,970	May 12	814	207	55	740
Harris, Noah, Indianapolis, Ind. Hub-box attachment	452,904	May 26	2356	596	55	1046
Harris, Orrin C., assignor of one-half to C. L. Petree, Little Falls, N. Y. Car-coupling	450,015	Apr. 7	545	135	55	106
Harris, Orrin C., assignor of one-half to C. L. Petree, Little Falls, N. Y. Label-holder for cars	458,167	Aug. 25	2020	524	56	939
Harris, Otto E. (See Coonse and Harris.)						
Harris, Philander A., Paterson, N. J. Suspension-loop and clamp	446,206	Feb. 10	1148	281	54	739
Harris, R. Duncan. (See Wahlin, Lundström, and Collins, assignors.)						
Harris, Richard D. (See Wahlin, Adolph, assignor.)						
Harris, Robert F., East Sharon, Pa. Stove for heating cars	446,517	Feb. 17	1671	407	54	856
Harris, Robert L., New York, N. Y. Foundation or inclosure for buildings	464,771	Dec. 8	1185	{ 294 295 }	57	1369
Harris, Scott J., Ortonville, Iowa. Double-action force-pump	460,964	Oct. 13	663	170	57	136
Harris Son & Company, A. (See Jones and Wedlake, assignors.)						
Harris, Stephen, et al. (See Daniels, James E., assignor.)						
Harris, Thomas P. (See Harris, Griffith, and Harris.)						
Harris, W. John. (See Gibbs, Edward B., assignor.) (Reissue.)						
Harris, William D., Ottawa, Ontario, Canada. Roofed culvert	445,994	Feb. 10	800	194	54	677
Harris, William H., Steele City, Nebr. Straw-burner	462,945	Nov. 10	1162	301	57	784
Harris, William H., Boston, Mass. Process of and apparatus for generating gas	463,965	Nov. 24	2778	{ 720 721 }	57	1111
Harris, William S., Milan, Tenn. Wagon-bed elevator	453,340	June 2	253	67	55	1196
Harris, William W., Charlestown, N. H. Collapsible ladder	449,159	Mar. 31	3049	771	54	1733
Harrison, Alvin F., assignor of two-thirds to L. W. and W. H. Harrison, Greely, Kans. Lock	465,819	Dec. 22	2882	737	57	1714
Harrison, Charles, Davenport, Washington. Feeder for thrashing-machines	462,434	Nov. 3	350	86	57	617
Harrison, Edwin G., and O. B. Thompson, Jersey, Ohio; said Harrison assignor to said Thompson. Axle-gage	454,002	June 9	1242	{ 323 324 }	55	1393
Harrison, Edwin I., Leroy, Ill. Churn	454,943	June 30	2744	699	55	1697
Harrison, Elias M. (See Bourell and Harrison.)						
Harrison, Eugene L., Crookston, Minn. Electric railway signaling apparatus	448,031	Mar. 10	1250	{ 318 319 }	54	1362
Harrison, Francis W., Wellston, Ohio. Book or copy holder	457,476	Aug. 11	914	234	56	709
Harrison, Frank B., Toledo, Ohio. Car-axle-box attachment	453,364	Aug. 25	2355	574	56	1001
Harrison, Frederick J. (See Many and Harrison.)						
Harrison, Henry, Philadelphia, Pa. Ventilating-window	451,003	Apr. 21	2116	{ 521 522 }	55	426
Harrison, Henry C., Potomac, Md. Canal-lock	446,708	Feb. 17	1955	487	54	911
Harrison, Henry J., Waterloo, Iowa. Book-support and desk	456,089	July 14	1242	326	56	245
Harrison, James M., assignor to Rochester Shoe Machinery Company, Rochester, N. Y. Pattern-plate	463,693	Nov. 17	2209	562	57	995
Harrison, James P., and J. L. Waring, Danville, Va. Envelope	444,979	Jan. 20	1619	414	54	332
Harrison, Leonard S., assignor of one-half to S. R. Harrison, Millersburg, J. B. Fluney, S. R. Rogers, H. E. Andrews, S. K. Snyder, and J. T. Hart, Paint Valley, Ohio. Repeating fire-arm	460,533	Sept. 29	3127	{ 782 783 }	56	1698
Harrison, Levi W., et al. (See Harrison, Alvin F., assignor.)						
Harrison, Sanford R., et al. (See Harrison, Leonard S., assignor.)						
Harrison, William W., Minneapolis, Minn. Billiard-counter	462,704	Nov. 10	768	200	57	707
Harrison, Williamson R., Canton, Ohio. Fodder-carrier	448,857	Mar. 24	2600	{ 652 653 }	54	1638
Harrison, Willie H., et al. (See Harrison, Alvin F., assignor.)						
Harrold, Aaron, and J. J. Mails, Manhattan, Kans. Cornstalk-harvester	452,786	May 26	2172	543	55	1011
Harrold, Jonas, deceased; L. A. Harrold, Columbiana, Ohio, administratrix. Governor for steam-engines	450,151	Apr. 14	741	189	55	151
Harrold, Lucy A., administratrix. (See Harrold, Jonas.)						
Harroun, Alexander, near Syracuse, N. Y. Drinking-cup	445,057	Jan. 20	1740	448	54	356
Harroun, Edward R. (See Thickets, Richard W., assignor.)						
Harrow Spring Company. (See Brinkman, Herman M., assignor.)						
Harryman, Eleazar, Juliaetta, Idaho. Water-motor	452,221	May 12	1255	317	55	820
Harsh, Samuel E., assignor of one-half to J. M. Harter, Wabash, Ind. Buckle	447,874	Mar. 10	991	250	54	1312
Harshberger, Charles R. (See Bartlett, Lincoln H., assignor.)						
Harsin, Charles D. (See Thibault and Harsin.)						
Harsin, Charles D., assignor of one-fourth to L. E. Alling, Stockton, Cal. Automatic fire-extinguisher	465,851	Dec. 29	2942	752	57	1734
Harsin, Elmer E., Ottumwa, assignor of one-half to J. B. Lloyd, Kirkville, Iowa. Transformable clarinet	464,926	Dec. 8	1399	353	57	1411
Hart, Albert F., Leon, Kans. Harvester	451,669	May 5	345	85	55	644
Hart, Ansaalem G., Detroit, Mich. Information slot-machine	456,566	July 28	2013	532	56	408
Hart, Charles A., assignor to W. Seng, Chicago, Ill. Wire-coiling machine	456,512	July 21	1926	{ 509 510 }	56	383
Hart, Daniel R. (See Baier and Hart.)						
Hart, George E., assignor to Waterbury Watch Company, Waterbury, Conn. Stem winding and setting watch	457,197	Aug. 4	410	107	56	610
Hart, Gerald W., assignor of one-half to G. S. Hegeman, Kansas City, Mo. Electric snap-switch	447,728	Mar. 3	722	181	54	1254
Hart, Gerald W., Kansas City, Mo., assignor of one-half to G. S. Hegeman, Hartford, Conn. Electric-snap switch	459,706	Sept. 15	1846	464	56	1438
Hart, Henry C., Detroit, Mich. Calculating-machine	445,447	Jan. 27	2324	{ 603 604 }	54	480
Hart, Henry C., Detroit, Mich. Portable coin-safe	449,852	Apr. 7	317	82	55	63
Hart, Henry C., Detroit, Mich. Coat-hook	456,030	July 14	1170	306	56	230
Hart, Henry C., Detroit, Mich., assignor to Star Automatic Sales Company, of Michigan. Machine for the assortment of coins	461,704	Oct. 20	1894	468	57	376
Hart, Hubert C., Unionville, Conn. Heeling-machine	450,735	Apr. 21	1708	{ 413 414 }	55	349
Hart, Hubert C., Unionville, Conn. Making spoons	458,168	Aug. 25	2021	524	56	939
Hart, Hubert C., Unionville, Conn. Manufacture of spoons and forks	460,374	Sept. 29	2881	719	56	1649
Hart, Isaac C., Cincinnati, Ohio, assignor of one-half to W. D. McCracken, Sanford, Fla. Plastering compound	452,346	May 12	1464		55	858

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Hart, Jacob T., <i>et al.</i> (See Harrison, Leonard S., assignor.)						
Hart, Joel T., Foster, Mo. Vehicle-hub.....	446,347	Feb. 10	1393	340	54	788
Hart, John. (See Dies, Charles A., assignor.)						
Hart, John N., <i>et al.</i> (See Godwin, Le Roy C., assignor.)						
Hart, John W. (See Wellington, Frank O., assignor.)						
Hart, Joseph, New York, N. Y. Stage-setting for theaters.....	454,471	June 23	1942	506	55	1543
Hart, Joseph, New York, N. Y. Stage-setting for theatrical representation of games.....	454,472	June 23	1943	506 507	55	1543
Hart, Lewis B., Plaquemine, La. Well-boring apparatus.....	457,713	Aug. 11	1274	329	56	780
Hart, Morris. (See Dubois, Austin A., assignor.)						
Hart, Myrtie E. (See Jolly, Mathias, assignor.)						
Hart, Robert H. (See Bates, Eddo V., assignor.)						
Hart, Russell A., Battle Creek, Mich. Paper-jogger.....	446,447	Feb. 17	1561	384	54	835
Hart, Sarah, St. Louis, Mich. Self-sustaining soot-catcher.....	460,205	Sept. 29	2615	653	56	1599
Hart, Thomas J., assignor to Sherwood Manufacturing Company, Buffalo, N. Y. Injector.....	461,197	Oct. 13	1005	256	57	200
Hart, Walter, New York, N. Y. Hoisting-machine.....	463,719	Nov. 24	2405	630 631	57	1040
Harte, William F., and C. A. Gerold, Omaha, Nebr.; said Gerold assignor to said Harte. Electrical annunciator.....	455,016	June 30	2878	731 732	55	1724
Hart, William H., Jr. (See Cole, Adoniram J., assignor.)						
Hart, William H., Jr. (See Guilbert, John M., assignor.)						
Hart, William H., Brooklyn, N. Y. Man-hole for underground electric conduits.....	443,992	Jan. 6	6	2	54	4
Harter, Isaac, <i>et al.</i> (See Fager, Anthony, assignor.)						
Harter, James R. (See Locke, Joseph S., assignor.)						
Harter, John M. (See Harsh, Samuel E., assignor.)						
Hartford, John, Chicago, Ill. Plumber's trap.....	441,751	Jan. 13	1209	314	54	245
Hartford Steam Boiler Inspection and Insurance Company. (See Allen, Jeremiah M., assignor.)						
Harth, Constant, Willows, Cal. Device for drawing steam-beer.....	449,853	Apr. 7	319	82	55	63
Hartig, Henry J., Brooklyn, N. Y. Governor for engines.....	451,047	Apr. 28	2180	538	55	446
Hartigan, James W., Morgantown, W. Va. Car-brake.....	459,782	Sept. 22	1964	495	56	1467
Hartigan, James W., Morgantown, W. Va., assignor of one-half to E. S. Avis. Dental anodyne.....	445,298	Jan. 27	2108		54	436
Hartigan, Joseph F., Salem, assignor of two-thirds to M. A. Riffe & Co., Roanoke, and G. W. Argabite, Lynchburg, Va. Station-indicator.....	448,147	Mar. 10	1413	361	54	1396
Hartin, John, Boston, Mass. Distributing apparatus for beer.....	464,021	Dec. 1	26	7	57	1141
Hartleb, Henry M., <i>et al.</i> (See McNeal, William A., assignor.)						
Hartley, Caroline, Philadelphia, Pa. Lid for frying or other pans.....	444,702	Jan. 13	1124	290	54	230
Hartley, Charles J., Decatur, Ill. Automatic grain-weigher.....	463,743	Nov. 24	2434	638	57	1046
Hartley, Charles J., assignor of two-thirds to J. K. Warren and B. K. Durfee, Decatur, Ill. Conveyor.....	446,597	Feb. 17	1780	440	54	878
Hartley, Charles J., assignor of two-thirds to J. K. Warren and B. K. Durfee, Decatur, Ill. Conveyor for thrashing-machines.....	446,598	Feb. 17	1781	440	54	878
Hartley, Charles J., assignor of two-thirds to J. K. Warren and B. K. Durfee, Decatur, Ill. Grain-meter.....	463,988	Nov. 24	2821	731 732	57	1119
Hartley, Charles J., assignor of two-thirds to J. K. Warren and B. K. Durfee, Decatur, Ill. Thrasher attachment for elevating and conveying grain.....	464,501	Dec. 8	760	185	57	1289
Hartley, Marcellus, <i>et al.</i> (See Beardsley and Moulton, assignors.)						
Hartley, Simeon, Newark, N. J., assignor to Newark Sheet Metal Ware Company, of New Jersey. Pipe-forming machine.....	449,412	Mar. 31	3494	879 880	54	1814
Hartman, Benjamin F., Pickering, Pa. Washing-machine.....	451,048	Apr. 28	2181	539	55	447
Hartman, E. A. (See Ridley, Eugene C., assignor.)						
Hartman, Jacob B., Wooster, Ohio. Friction device for inside blinds.....	454,349	June 16	1745	454	55	1497
Hartman, Jacob B., Wooster, Ohio. Window-frame.....	455,205	June 30	3210	815	55	1789
Hartman, John M., Philadelphia, Pa. Tuyere.....	460,131	Sept. 29	2511	625	56	1578
Hartman, John M., Philadelphia, Pa. Blast-furnace.....	460,231	Sept. 29	2650	660	56	1606
Hartman Manufacturing Company. (See Rogers, Seymour, assignor.)						
Hartman, Mary S. C., Redding, Cal. Pastry-shelf.....	460,748	Oct. 6	347	85	57	68
Hartmann, Charles A., Washington, D. C. Bicycle-wheel.....	456,815	July 28	2433	641 642	56	488
Hartmann, Ernst, Dusseldorf, Germany. Railway-brake operating by air-pressure or vacuum.....	448,833	Mar. 24	2548	639 640	54	1629
Hartmann, Mary S. C., Redding, Cal. Steamer.....	452,521	May 19	1753	441	55	921
Hartmann, Valentine. (See Ridder and Hartmann.)						
Hartness, James, Springfield, Vt. Chnck.....	451,711	May 5	406	99	55	656
Hartness, James, Springfield, Vt. Machine for making screws.....	457,967	Aug. 18	1710	448 449 450	56	872
Hartnett, John, <i>et al.</i> (See McGowan, Mark J., assignor.)						
Hartridge, James H., London, England. Box.....	460,866	Oct. 6	508	129	57	100
Hartsfeld, Charles L., Newport, Ky. Inclining table.....	444,634	Jan. 13	1015	264	54	209
Hartsfeld, Charles L., Newport, Ky. Composition of matter for the purification and strengthening of iron and cast-steel.....	459,494	Sept. 15	1496		56	1372
Hartshorn, Stewart, Short Hills, N. J. Attaching window-shades to rollers.....	444,832	Jan. 20	1338	347	54	279
Hartsuff, Henry, and J. Murphy, New Castle, Pa. Wire-nail feeder.....	445,344	Jan. 27	2180	564	54	451
Hartung, Alphonso, Nevada City, Cal. Watch-maker's jewel-setting cutter.....	451,712	May 5	408	99	55	656
Hartwell, Edward A. (See Elten, Adolph H. G., assignor.)						
Hartzell, Calvin D., Newville, Pa. Weather-strip.....	459,109	Sept. 8	892	214	56	1246
Hartzell, Conrad, St. Joseph, Mo. Plow.....	461,113	Oct. 13	867	223	57	174
Harvey, Benjamin, Honey Creek, Ind. Automatic gate.....	460,363	Sept. 29	2865	715	56	1646
Harvey, Charles W., Los Angeles, Cal., and C. J. Root, Bristol, Conn.; said Root assignor to said Harvey. Door-spring.....	450,486	Apr. 14	1278	312	55	250
Harvey & Co., William. (See Harvey, William, assignor.)						
Harvey, Earl T. (See Babbitt and Harvey.)						
Harvey, Earl T., Chicago, Ill. Electric railway-signal.....	446,917	Feb. 24	2314	575	54	990
Harvey, Edward B. (See Konigsfow, Sanford, and Harvey.)						
Harvey, Edward B. (See Rokusek, Harvey, and Sanford.)						
Harvey, Edward B. (See Rokusek, Sanford, and Harvey.)						
Harvey, Edward E. (See Gardner, Levi S., assignor.)						
Harvey, Ernest W. (See Biederman and Harvey.)						
Harvey, Francis B., Pickering, Pa. Nut-lock.....	445,469	Jan. 27	2354	611	54	485
Harvey, Francis B., Pickering, Pa. Cultivator.....	457,198	Aug. 4	411	107	56	610
Harvey, Francis B., Pickering, Pa. Harrow and roller.....	461,334	Oct. 13	1218	310	57	243
Harvey, George L., Chicago, Ill. Draw-gear for railway-cars.....	447,323	Mar. 3	67	18	54	1131

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Harvey, George L., Chicago, Ill. Draw-gear for railway-cars	447,324	Mar. 3	68	18, 19	54	1131
Harvey, George L., Chicago, Ill. Draw-gear for railway-cars	462,911	Nov. 10	1103	{ 287 288 }	57	773
Harvey, Hayward A., Orange, N. J. Rolled spike	456,723	July 28	2274	603	56	460
Harvey, Hayward A., Orange, N. J. Gun	460,261	Sept. 29	2693		56	1615
Harvey, Hayward A., Orange, N. J. Decrementally-hardened armor-plate	460,262	Sept. 29	2694	671	56	1615
Harvey, Hayward A., Orange, N. J. Resilient spiral washer and making the same	464,301	Dec. 1	474	114	57	1224
Harvey, John W., assignor of one-half to G. E. Wray, Cumberland, Ind. Feeder attachment for clover-hullers	448,148	Mar. 10	1415	362	54	1396
Harvey L. Hopkins Company. (See Hopkins, Harvey L., assignor.)						
Harvey & Son, A. (See Blankerts, Albert, assignor.)						
Harvey, Viena E., Kansas City, Mo. Combined bust and garment-supporter	463,050	Nov. 10	1310	339	57	814
Harvey, William, assignor to W. Harvey & Co., Philadelphia, Pa. Artificial horn and producing the same	460,086	Sept. 22	2429	607	56	1556
Harvey, William L. (See Cook and Harvey.)						
Harvey, Willis W., Dexter, Minn. Corn-harvester	458,365	Aug. 25	2356	575	56	1001
Harwell, George B. (See Davis and Harwell.)						
Harwood, Henry L., Norfolk, Va. Plow	465,709	Dec. 22	2717	{ 693 694 }	57	1681
Harwood, John, Oskosh, Wis. Letter-box	452,705	May 19	2034	510	55	976
Harwood, John E., assignor of one-half to J. A. Lighthall, Jr., Syracuse, N. Y. Tool-guido for sharpening lawn-mower knives	462,435	Nov. 3	351	86	57	617
Hasenau, Franz, Lennep, Germany. Grooving and scratching apparatus for mill-boards	459,095	Sept. 8	870	209	56	1242
Hash, John B. (See Miller, Hezekiah, assignor.)						
Haskell, Benjamin. (See Davis, Clarence L., assignor.)						
Haskell, Edward F., <i>et al.</i> (See Hatch, Charles A., assignor.)						
Haskell, William H. (See Wilcomb, Frank, assignor.)						
Haskin, Walden L. (See Cary, William N., assignor.)						
Haskins, Benjamin H., Mechanicsville, N. Y. Hand-truck	461,433	Oct. 20	1401	353	57	285
Haskins, Charles A., assignor to G. Montague, Chicago, Ill. Dish-washing machine	457,317	Aug. 4	626	{ 164 165 }	56	649
Haskins, Charles A., assignor to G. Montague, Chicago, Ill. Dish-washing basket	457,318	Aug. 4	628	165	56	650
Haskins, Charles D., Brooklyn, N. Y., assignor to Western Electric Company, Chicago, Ill. Quadruplex telegraphy	455,398	July 7	160	41	56	34
Haskins, Clark C., Chicago, Ill. Starting-switch for electric motors	453,367	June 2	290	76	55	1202
Haskins, James H., assignor to McCormick Harvesting Machine Company, Chicago, Ill. Tack-driving machine	453,175	May 26	2837	{ 711 712 }	55	1136
Haskins, Morris R., assignor of two-thirds to E. E. P. Truesdell and F. Hopkins, Belvidere, Ill. Bag-tie	448,614	Mar. 17	2195	549	54	1554
Haslam, William, <i>et al.</i> (See Bisel, Joseph J., assignor.)						
Haslap, William, Sidney, assignor of one-half to J. H. Doering, Wapakoneta, Ohio. Wheel-barrow	465,798	Dec. 22	2847	729	57	1707
Hassall, William S. (See Blythe, Edward F., assignor.)						
Hassenpflug, Charles E. (See Huster, Theodor, assignor.)						
Hastie, William, Glasgow, Scotland. Copying-press	448,858	Mar. 24	2601	653	54	1639
Hastings, Azariah H., New York, N. Y. Upright-piano case	448,032	Mar. 10	1252	319	54	1363
Hastings, Azariah H., New York, N. Y. Key-bottom support	448,033	Mar. 10	1253	319	54	1363
Hastings, Azariah H., New York, N. Y. Piano-action	450,572	Apr. 14	1386	342	55	273
Hastings, Azariah H., New York, N. Y. Piano-action	457,714	Aug. 11	1275	{ 329 330 }	56	780
Hastings, John B. (See Cole and Hastings.)						
Hastings, Matthew E., New York Mills, N. Y. Box for steaming cops	459,004	Sept. 8	709	174	56	1212
Hastings, Walter W., Jersey City, N. J. Jewel-bearing for watches	463,625	Nov. 24	2251	593	57	1012
Hastings, Walter W., Jersey City, N. J. Automatic screw-machine	463,626	Nov. 24	2252	{ 593 594 }	57	1012
Hastings, T. E. (See Hanna, James P., assignor.)						
Hastings, William P. (See Bowles, David, assignor.)						
Hasty, Joseph P., Superior, Nebr. Car-coupling	466,233	Dec. 29	3568	914	57	1855
Haswell, Alexander E. and A. G., Vienna, Austria-Hungary. Coating metals with oxides	453,355	June 2	274		55	1199
Haswell, Alfred M., Chicago, Ill. Window-curtain guide	449,042	Mar. 24	2865	728	54	1691
Haswell, Arthur G. (See Haswell, Alexander E. and A. G.)						
Hat Dipping Machine Company. (See Newman, Samuel T., assignor.)						
Hatch, Charles A., assignor of two-thirds to E. F. Haskell and H. W. Coley, Oneida, N. Y. High and low water alarm	458,787	Sept. 1	359	87	56	1131
Hatch, Charles, Jr., Revere, Mass., assignor to Merrick Manufacturing Company, Portland, Me. Welt-guide for sewing-machines	460,776	Oct. 6	386	94	57	75
Hatch, George E., Tallmadge, Mich. Vehicle-seat	461,832	Oct. 27	2106	519	57	425
Hatch, Theodosia. (See Hussey and McCann, assignors.)						
Hatch, Walter P. (See Patterson and Ryan, assignors.)						
Hatch, William B. (See Alexander and Hatch.)						
Hatch, Willis D. (See Hooker and Hatch.)						
Hatcher, Edwin H., Neodesha, Kans. Velocipede	458,106	Aug. 18	1920	499	56	913
Hatcher, Henry C., Milton, N. C. Device for making plug-tobacco	463,151	Nov. 17	1483	385	57	855
Hatcher, Singleton D., assignor of two-thirds to F. A. Edmonds and W. F. Croloy, Cleveland, Ohio. Bevel-square	451,659	May 5	331	82	55	642
Hatcher, William A., assignor of one-fourth to M. W. Keene, Dallas, Tex. Furnace	445,249	Jan. 27	2043	525	54	422
Hatfield, Alphonso W., E., and W. N., Correctionville, Iowa. Draft-equalizer	454,734	June 23	2363	607	55	1621
Hatfield, Eugene. (See Hatfield, Alphonso W., E., and W. N.)						
Hatfield, James, Cincinnati, Ohio. Draw-head and coupling mechanism for railway-cars	451,481	May 5	54	13	55	589
Hatfield, James F. (See Bell, Enos T., assignor.)						
Hatfield, James I., Commissioner, Ga. Indicator for saw-mills	451,860	May 5	626	155	55	698
Hatfield, Robert F., New York, N. Y. Transom-lifter	463,051	Nov. 10	1311	339	57	814
Hatfield, Samuel P., Jamaica, assignor of one-half to Continental Iron Works, Brooklyn, N. Y. Ordnance-battery	451,004	Apr. 21	2117	{ 522 523 }	55	426
Hatfield, Willey N. (See Hatfield, Alphonso W., E., and W. N.)						
Hatfield, William J. (See Cronan, James W., assignor.)						
Hathaway, Arthur K., Axtell, Nebr. Blacksmith's vise	446,348	Feb. 10	1394	310	54	789
Hathaway, Caroline F., Rockford, Ill. Ribbon-needle	445,316	Jan. 27	2138	553	54	443
Hathaway, Edgar F., Hornellsville, N. Y. Bicycle-support	456,411	July 21	1761	465	56	353
Hathaway, Philip, New York, N. Y. Galvanic battery	454,598	June 23	2158	558	55	1581
Hathaway, Ralph, Memphis, Tenn. Cotton-gin feeder	463,052	Nov. 10	1312	340	57	815
Hathaway, William E., Hornellsville, N. Y. Vulcanizing apparatus	459,632	Sept. 15	1735	435	56	1416
Hattel, William H., Dayton, Ohio. Beam-compasses	455,461	July 7	256	65	56	52

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Hattersley, Richard L., and J. Hill, Keighley, England. Mechanical movement	448,714	Mar. 24	2371	593	54	1595
Hauck, Charles J., Jr., Brooklyn, N. Y. Metal box	448,034	Mar. 10	1254	320	54	1363
Hauck & Comstock. (See Comstock, George S., assignor.)						
Hauck, Louis, New York, N. Y. Mechanism for overcoming dead-centers	456,031	July 14	1171	307	56	231
Hauck, Philip, Philadelphia, Pa. Knockdown crate	466,234	Dec. 29	3569	914	57	1855
Hauelsen, Edward, Cleveland, Ohio. Sash-holder	452,269	May 12	1331	332	55	834
Hauenschild, Hans, Berlin, Germany. Lime kiln or furnace	453,747	June 9	942	244	55	1334
Hauf, I. (See Dieterle, Wilhelm, assignor.)						
Haugh, Benjamin F., Indianapolis, Ind. Machine for curving iron bars or beams	446,132	Feb. 10	1015	{ 250 251	{ 54	717
Haughawout, John W., Omaha, Nebr. Depurator	452,131	May 12	1111	283	55	791
Haughawout, John W., Omaha, Nebr. Vaginal syringe	452,222	May 12	1257	{ 317 318	{ 55	820
Haughawout, John W., Omaha, Nebr., assignor to Leslie Brothers Manufacturing Com- pany, Paterson, N. J. Rotary snow-plow	446,773	Feb. 17	2052	511	54	931
Haughawout, John W., Omaha, Nebr., assignor to Leslie Brothers Manufacturing Com- pany, Paterson, N. J. Rotary snow-plow	450,487	Apr. 14	1279	313	55	250
Haughey, Michael, St. Louis, Mo. Rubber pad for interfering straps	451,210	June 16	1544	406	55	1459
Hauenbeck, John H., Cleveland, Ohio, assignor to A. C. Bishop, Detroit, Mich. Detach- able chair-back	447,682	Mar. 3	652	162	54	1241
Hauty, Aaron C., Pott's Grove, Pa. Combination wrench-tool	460,438	Sept. 29	2963	741	56	1665
Haupt, Wilber E., <i>et al.</i> (See Josef, Edward E., assignor.)	461,477	Oct. 20	1530	375	57	308
Hausdörfer, Reinhold G., Zanesville, Ohio. Trammel-head	447,642	Mar. 3	602	148	54	1231
Hausheer, Bernhard. (See Page and Hausheer.)						
Häusler, Theodor, Dresden, Germany. Fork	456,032	July 14	1171	307	56	231
Hausman, Frederick H. (See Thomas, Henry E., assignor.)						
Häussler, Carl F., Philadelphia, Pa. Wash-boiler	460,796	Oct. 6	413	101	57	82
Hausmann, Hermann, Chicago, Ill. Veterinary incisor-cutter	454,473	June 23	1945	507	55	1543
Haven, George H., assignor of one-half to J. D. Wilson, New Bedford, Mass. Automatic elevator-stop	455,282	June 30	3346	845	55	1815
Haven, George H., assignor of one-half to J. D. Wilson, New Bedford, Mass. Line-fastener.	457,276	Aug. 4	553	145	56	635
Haven, James L. (See Matthews, Edwin S., assignor.)						
Havender, Joseph, Springfield, Mass. Pattern for cutting conical skirt-bands	460,132	Sept. 29	2513	626	56	1579
Havens, James H. (See Parry, William H., assignor.)						
Havens, Katharine. (See Kimball, Charles M., assignor.)						
Haviland, Gilbert L. (See Singer, William F., assignor.)						
Haviland, Luke, Rahway, N. J. Ink-distributor for printing-presses	455,206	June 30	3211	815	55	1789
Hawdon, William, Middlesbrough-on-Tees, England. Apparatus for removing slag from furnaces	447,683	Mar. 3	654	162	54	1242
Hawes, Benjamin N., Toledo, Ohio. Apparatus for refining oil	444,233	Jan. 20	1340	348	51	279
Hawes Company, C. L. (See Seybold and Whealen, assignors.)						
Hawes, Harry, New York, N. Y. Seat for railway-cars	451,690	May 5	379	93	55	651
Hawes, William L., Cincinnati, Ohio. Vehicle-spring	464,967	Dec. 15	1485	373	57	1439
Hawk, Hale E., Bucyrus, Ohio. Grain-meter	461,335	Oct. 13	1220	{ 310 311	{ 57	244
Hawk, Hale E., Bucyrus, Ohio. Grain-meter	461,336	Oct. 13	1224	{ 311 312	{ 57	245
Hawk, Hale E., assignor of one-half to M. J. Monnette, Bucyrus, Ohio. Grain-meter	461,385	Oct. 13	1315	{ 332 333	{ 57	262
Hawken, Thomas. (See Knight and Hawken.)						
Hawkes, Richard H., Boughton, Ark. Railway-switch	457,776	Aug. 18	1385	358	56	811
Hawkins, Allen H., <i>et al.</i> (See Ham, Drayton L., assignor.)						
Hawkins, Benjamin A., Saylesville, R. I. Automatic regulator	462,005	Oct. 27	2375	588	57	477
Hawkins, Frederick H., New York, N. Y. Machine for embossing designs on wood	448,485	Mar. 17	1995	500	54	1515
Hawkins, Frederick H., New York, N. Y. Machine for embossing ornamental designs on wood or other material	448,486	Mar. 17	1997	500	54	1516
Hawkins, Frederick H., New York, N. Y. Machine for ornamenting wood	461,918	Oct. 27	2245	{ 555 556	{ 57	452
Hawkins, Frederick H., New York, N. Y. Machine for embossing designs on wood	461,919	Oct. 27	2250	{ 556 557	{ 57	453
Hawkins, John, New London, Ind. Windmill	459,184	Sept. 8	1007	246	56	1267
Hawkins, John J., Newark, assignor to J. O. Ward, Orange, and W. Huntington, Mont- clair, N. J. Hemp-brake	465,434	Dec. 15	2273	583	57	1587
Hawkins, John T., Taunton, Mass. Two-color-printing machine	445,017	Jan. 20	1673	430	54	343
Hawkins, John T., Taunton, Mass. Sheet-transfer apparatus for printing-machines	445,018	Jan. 20	1675	430	54	343
Hawkins, John T., Taunton, Mass. Perfecting printing-machine having means for pre- venting offset	445,058	Jan. 20	1742	{ 448 449	{ 54	356
Hawkins, John T., Taunton, Mass. Multi-color-printing machine	445,059	Jan. 20	1745	449	54	356
Hawkins, John T., Taunton, Mass. Plate-holder for printing-machines	453,862	June 9	1050	275	55	1356
Hawkins, John T., Taunton, Mass. Rotary chromatic-printing machine	456,539	July 21	1974	520	56	393
Hawkins, John T., W. S. Huson, and W. B. Yates, Taunton, Mass., assignors to Campbell Printing Press and Manufacturing Company, New York, N. Y. Gripper mechanism for printing-machines	457,715	Aug. 11	1277	{ 330 331	{ 56	781
Hawkins, William C., Taunton, Mass., assignor to Campbell Printing Press and Manufac- turing Company, of New York. Machine for printing from colotype or photo-gelatine plates	454,268	June 16	1628	427	55	1475
Hawks, James D., <i>et al.</i> (See Susemehl, Francis G., assignor.)						
Hawks, William H., and G. Peoples, Dresden, Tenn.; said Peoples assignor to T. W. Palmer. Churn	458,693	Sept. 1	228	54	56	1109
Hawksley, Arthur F., Altrincham, England. Cigar-lighter	447,875	Mar. 10	992	250	54	1312
Hawksworth, David, Plattsmouth, Nebr. Door-opener	449,364	Mar. 31	3414	858	54	1798
Hawley, Charles D. (See Hitchcock and Hawley.)						
Hawley, Frank J., Phelps, N. Y. Fruit-basket	464,565	Dec. 8	858	211	57	1308
Hawley, Mary A., Dixon, Ill. Invalid's table	456,990	Aug. 4	99	24	56	552
Hawley, Melville C., St. Louis, Mo. Furnace	447,179	Feb. 24	2763	{ 683 684	{ 54	1073
Hawley, Robert C., Pueblo, Colo. Ore-sampling device	463,509	Nov. 17	2038	534	57	963
Hawley, Samuel F., Farmington, Ill. Clothes-pounder	455,250	June 30	3272	829	55	1800
Hawley, Willard P., Watertown, N. Y. Wood-fiber digester	445,767	Feb. 3	419	105	54	595
Haworth, Lisbon J., <i>et al.</i> (See Middleton, Abram, assignor.)						
Haworth, William H., Brooklyn, N. Y. Order-pad calendar	444,150	Jan. 6	281	67	54	58

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Haworth, William M., Decatur, Ill. Saw-file guide	455,327	July 7	41	12	56	11
Hawthorne, William A., Carson City, Nev. Super for bee-hives	464,360	Dec. 1	559	137	57	1240
Hawyer, Oscar S., Truxton, N. Y. Journal-box	458,317	Aug. 25	2274	556	56	985
Hay, Ellwood, Phillipsburg, N. J. Hand-piece for dental purposes	461,754	Oct. 20	1965	{ 487 488 }	57	390
Hay, Francis M., Erie, Pa. Auger-handle	461,529	Oct. 20	1616	395	57	324
Hay, Gilbert, assignor of one-half to E. Jacobs, Madison, Nebr. Machine for setting staples	461,337	Oct. 13	1227	312	57	245
Hay, Walter, assignor of one-half to G. E. Horn, Chicago, Ill. Electric bell	460,503	Sept. 29	3074	771	56	1685
Hay, William, Boston, Mass. Device for packing pianos	447,112	Feb. 24	2628	651	54	1049
Hayden Articulating Cash Register Company. (See Hayden, Austin B., assignor.)						
Hayden, Austin B., assignor to Hayden Articulating Cash Register Company, Kansas City, Mo. Cash register and indicator	460,263	Sept. 29	2697	{ 671 672 673 }	56	1615
Hayden, Austin B., Kansas City, Mo., assignor to Hayden Articulating Cash Register Company, of Missouri. Combined cash-register and phonograph	460,492	Sept. 29	3046	{ 763 764 765 }	56	1681
Hayden & Derby Manufacturing Company. (See Desmond, John, assignor.)						
Hayden, Edward S., Waterbury, Conn. Siphon	459,838	Sept. 22	2052	516	56	1485
Hayden, Edward S., Waterbury, Conn. Electrolytic apparatus for treating metals	465,525	Dec. 22	2436	621	57	1627
Hayden, Henry A., Jersey City, N. J. Suspender-fastening	447,876	Mar. 10	993	251	54	1313
Hayden, Henry A., Jersey City, N. J. Waist-belt	447,877	Mar. 10	994	251	54	1313
Hayden, James T., Chicago, Ill., assignor to Crane Company, of Illinois. Safety-valve	451,210	Apr. 28	2445	604	55	497
Hayden, Jerome, Owensborough, Ky. Grain-drill	457,277	Aug. 4	554	{ 145 146 }	56	625
Hayden, Joseph L., Portsmouth, N. H. Friction-clutch	444,436	Jan. 13	713	{ 186 187 }	54	149
Hayden, Randolph, Haddam, Conn. Cutting-nippers	452,916	May 26	2372	601	55	1048
Hayden, Randolph, Haddam, Conn. Cutting-shears	452,917	May 26	2373	601	55	1048
Hayden, William H., Milwaukee, Wis. Lace-fastening	452,753	May 19	2120	533	55	991
Hayden, William R., New Hartford, Mo. Wire-stretcher	462,128	Oct. 27	2566	637	57	513
Haydock, W. T. (See Norwood and Rose, assignors.)						
Hayes, Charles C., Penn Yan, N. Y. Two-wheeled vehicle	462,254	Nov. 3	51	13	57	562
Hayes, Edward, assignor of three-fourths to J. T. and J. J. Lennox and T. Dowling, Lynn, Mass. Leather-staking machine	447,180	Feb. 24	2764	684	54	1074
Hayes, Frederick W., Detroit, Mich. Clipping-tag	458,169	Aug. 25	2022	524	56	939
Hayes, Greta L. S., Springfield, Mass. Convertible trunk or wardrobe	445,400	Jan. 27	2261	587	54	467
Hayes, Hammond V., Cambridge, assignor to American Bell Telephone Company, Boston, Mass. Electric-circuit-changing apparatus	456,817	July 28	2436	642	56	489
Hayes, Hammond V., Cambridge, Mass., and A. S. Hibbard, Morristown, N. J., assignors to American Bell Telephone Company, Boston, Mass. Terminal for electric batteries	455,966	July 14	1100	290	56	218
Hayes, Hammond V., Cambridge, and H. D. Sears, Lynn, assignors to American Bell Telephone Company, Boston, Mass. Automatic telephone system	457,477	Aug. 11	916	{ 234 235 }	56	710
Hayes, Hammond V., Cambridge, and A. C. White, Boston, assignors to American Bell Telephone Company, Boston, Mass. Protective fuse	458,753	Sept. 1	309	76	56	1124
Hayes, Henry E., Brooklyn, N. Y. Adjustable map or chart stand	461,755	Oct. 20	1972	488	57	391
Hayes, James, Cleveland, Ohio. Sliding partition	447,610	Mar. 3	552	{ 136 137 }	54	1221
Hayes, Joel A., Carson City, Nev. Electric-arc lamp	445,176	Jan. 27	1933	{ 499 500 }	54	401
Hayes, John, Fall River, Mass. Stopping mechanism for looms	458,624	Sept. 1	118	26	56	1089
Hayes, John W., assignor to himself, M. Eldredge, and E. S. Fay, Portsmouth, N. H. Rotary engine	444,834	Jan. 20	1341	{ 348 349 }	54	279
Hayes, Thomas R. (See Albert, Henry, assignor.)						
Hayes, Will L., and J. H. Konig, Cleveland, Ohio. Apparatus for treating wire	465,700	Dec. 22	2707	{ 690 691 }	57	1679
Haynes, Charles E., Minneapolis, Minn. Car-coupling	448,427	Mar. 17	1903	478	54	1499
Haynes, Daniel J., and O. Allon, Denver, Colo. Railway danger-alarm	459,456	Sept. 15	1438	{ 361 362 }	56	1361
Haynes, Harry, assignor of one-half to I. Root, Coldwater, Mich. Fence-weaving machine	450,573	Apr. 14	1387	342	55	274
Haynes, Hobart R., Westminster, Mass. Folding cup	446,774	Feb. 17	2054	512	54	932
Haynes, Leonard F., Atlanta, Tex. Plow	451,931	May 12	756	191	55	799
Haynes, Thomas M., and W. H. Gunning, Palestine, Tex. Label and twine cabinet	462,349	Nov. 3	517	126	57	650
Hay, Charles W., New York, N. Y. Means for preventing the accumulation of gas in man-holes	457,436	Aug. 11	847	219	56	698
Hays, Elijah, Warsaw, Ind. Horse-detacher	456,816	July 28	2435	642	56	488
Hays, James. (See Brown, Ellsworth, assignor.)						
Hays, James E. (See Cline, Watson H., assignor.)						
Hays, Lewis, et al. (See May, Henry H., assignor.)						
Hays, William S., Troy, Ohio. Electric-arc lamp	463,720	Nov. 24	2407	631	57	1040
Haytock, Benjamin, Paterson, N. J., assignor to Hess, Goldsmith & Co., New York, N. Y. Mechanism for cross-weaving	457,117	Aug. 4	282	73, 74	56	587
Hayward, Josiah E., Elmwood, Mass. Wearing-pad for horses	460,822	Oct. 6	449	113	57	90
Hayward, Josiah E., Elmwood, assignor of one-half to B. R. Park, Campello, Mass. Whiplash-button	456,144	July 21	1329	352	56	271
Hayward, Thomas S. (See Sigbee, Hayward, and Anderson.)						
Haywood, Thomas B., et al. (See Gabbett, Edmond R., assignor.)						
Hazard, Arthur P., Brockton, Mass. Incubator	446,133	Feb. 10	1017	251	54	717
Hazard, Clement, San Francisco, Cal. Cable-grip	448,035	Mar. 10	1255	320	54	1363
Hazard, Dexter, assignor of one-half to F. O. Clark, Marquette, Mich. Attachment for gang-saw mills	462,797	Nov. 10	913	238	57	737
Hazard, Frederick J. H., Toronto, Canada. Bicycle	448,960	Mar. 24	1481	691	54	1666
Hazard, Frederick J. H., Toronto, Canada. Cash-carrier apparatus	466,235	Dec. 29	3571	917	57	1855
Hazel, William M., Georgetown, Del. Sash-holder	448,339	Mar. 17	1771	448	54	1474
Hazeltine, Ezra T. (See Taylor, John J., 2d, assignor.)						
Hazleton, Ivory, assignor of two-thirds to A. Engard, Philadelphia, Pa. Journal-bearing	449,935	Apr. 7	434	108	55	85
Hazleton, James P., New Stratsville, Ohio. Paving-block	449,739	Apr. 7	147	36	55	30
Hazen, Charles D., Martinsburg, N. Y. Game-board	465,927	Dec. 29	3064	786	57	1759
Hazlet, John D., and L. L. Lord, Meadville, Pa. Taper attachment for lathes	450,016	Apr. 7	546	136	55	106
Hazlip, Walter C., Brusly Landing, La. Cane-juice-straining device	460,867	Oct. 6	508	130	57	100
Head, Frederick A., and S. A. Kerns, Rock Island, Ill. Disk cultivator	456,489	July 21	1890	500	56	377
Head, Joseph A., assignor of three-fourths to J. Irons, J. L. Smith, and E. L. McClain, Greenfield, Ohio. Dumping-wagon	447,774	Mar. 10	815	202	54	1279
Head, Joseph A., assignor of three-fourths to J. Irons, J. L. Smith, and E. L. McClain, Greenfield, Ohio. Dumping-wagon	455,399	July 7	161	41	56	35

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Head, Theibert O., Eupora, Miss. Combined planter and fertilizer-distributor	466,236	Dec. 29	3572	914	57	1856
Headen, John S., and O. L. Beasley, Pleasant Hill, Mo. Latch	465,928	Dec. 29	3066	786	57	1759
Headley, Elwood, and W. G. Horton, Newark, N. J. Registering toy bank	450,071	Apr. 7	620	157	55	120
Headley, Harry, assignor to H. Brunt & Son, East Liverpool, Ohio. Manufacture of knob-molds	455,400	July 7	162	41	56	35
Heagerty, Michael, Baltimore, Md. Hoof-expander	445,778	Feb. 3	439	109	54	598
Heald, David, <i>et al.</i> (See Elliott, Richard P., assignor.)						
Heald, David, <i>et al.</i> (See Elliott, William J., assignor.)						
Heald, John, Springfield, Mass. Shell for musical instruments	448,797	Mar. 24	2498	625	54	1619
Heale, William, Battersea, England. Pneumatic tire	458,393	Aug. 25	2408	586	56	1011
Heale, William, London, England. Valve for pneumatic tires	462,815	Nov. 10	947	246	57	743
Healey, Charles, <i>et al.</i> (See Hoyt, Joseph M., assignor.)						
Health Nursing Bottle Company. (See Balston and Rose, assignors.)						
Healy, Caleb E., New London, Ohio. Steam-muffler	449,120	Mar. 31	2992	756	54	1724
Healy, Caleb E., New London, Ohio. Car truck and brake	459,748	Sept. 22	1915	483	56	1458
Healy, Joseph S. (See Paine, George C., assignor.)						
Healy, Patrick J. (See Pfordner, Adolph, assignor.)						
Heaney, John, Buckley, Ill. Machine for breaking and cleaning hemp	458,318	Aug. 25	2274	556	56	985
Heap, Charles. (See Grosselin, Henry N., assignor.)						
Heaps, Edward K., assignor to Patent Cuff Adjuster Company, Limited, Sheffield, England. Cuff-holder	463,369	Nov. 17	1835	480	57	923
Hearn, Michael, Hampstead, England. Type-writing machine	453,240	June 2	95	25	55	1166
Hearn, Michael, Hampstead, England. Type-writing machine	453,241	June 2	98	26	55	1166
Hearn, Michael, and M. Donne, London, England. Type-writing machine	464,868	Dec. 8	1321	{ 331 332 }	57	1397
Heartley, George W., Toledo, Ohio. Metal wheel-hub	464,729	Dec. 8	1123	278	57	1358
Heartwell, Augusta C. (See Heartwell, Oscar F., Jr., assignor.)						
Heartwell, Oscar F., Jr., assignor to A. C. Heartwell, Hastings, Nebr. Window-screen	457,155	Aug. 4	341	87	56	599
Heath, Alfred R., Covington, Ind. Car-coupling	466,167	Dec. 29	3473	{ 887 888 }	57	1837
Heath, Augustus S., and O. V. Metts, Macon, Ga. Planter and fertilizer-distributor	456,412	July 21	1762	{ 465 466 }	56	353
Heath, Edwin A., Milwaukee, Wis. Box-closure	444,954	Jan. 20	1592	406	54	326
Heath, Frank E. (See Richardson and Heath.)						
Heath, George H. (See Anderson, Josiah B., assignor.)						
Heath, George S., Springfield, Mass. Joint for mechanical elements	445,401	Jan. 27	2262	587	54	467
Heath, George S., Springfield, Mass. Connecting-rod	445,402	Jan. 27	2264	587	54	467
Heath, Heber L., San Francisco, Cal. Glove	458,326	Aug. 25	2291	560	56	989
Heath, Lawrence, assignor to G. W. Kirkpatrick, Macedon, N. Y. Changeable-speed gear- ing	458,830	Sept. 1	438	106	56	1149
Heath, Margaret H. (See Groshon, John A., assignor.)						
Heath, Mark A., Providence, R. I. Bale-covering	448,487	Mar. 17	1998	500	54	1516
Heath, Orlando F., Northville, N. Y. Cloth-measuring machine	444,354	Jan. 6	578	148	54	115
Heaton-Peninsular Button Fastener Company. (See Vinton, John H., assignor.)						
Heaton, Ryan, Howell's Depot, N. Y. Felt boot	462,129	Oct. 27	2566	638	57	513
Heavener, Floyd, Helena, Mont. Machine for setting tires	461,302	Dec. 1	475	114	57	1225
Heberling, Henry (See Heberling, William L. and H.)						
Heberling, William L. and H. Havana, Ill. Metal roofing	463,831	Nov. 24	2559	667	57	1070
Heberer, Adam, Alameda, Cal. Furnace for steam-boilers	464,155	Dec. 1	921	53	57	1178
Heberer, Adam, Alameda, Cal. Steam-boiler	465,929	Dec. 29	3067	787	57	1759
Hébert, Hubert, Lake Linden, Mich. Cloth-measuring machine	464,869	Dec. 8	1327	333	57	1398
Hébert, Joseph O., Grand Rapids, Wis. Pole-tip	460,578	Oct. 6	56	13	57	13
Hébert, Joseph R., Brooklyn, N. Y., assignor to Domestic Sewing Machine Company, of Ohio. Attachment-holder for sewing-machines	445,950	Feb. 3	706	172	54	651
Hébert, Joseph R., Brooklyn, N. Y., assignor to Domestic Sewing Machine Company, of Ohio. Tuck-marking attachment for sewing-machines	451,869	May 5	640	160	55	700
Hébert, Placide, New Iberia, La. Liniment	445,995	Feb. 10	802	.....	54	677
Hecht, Bruno H., Meerane, Germany. Washing-machine	456,145	July 21	1331	{ 352 353 }	56	272
Hecht, Frank A., <i>et al.</i> (See Cline, Frederick N., assignor.)						
Heck, August, Baltimore, Md. Chin-rest for violins	460,133	Sept. 29	2514	626	56	1579
Heckel, John, assignor of one-half to W. A. and J. G. Brooks, Rochester, N. Y. Shoe	459,722	Sept. 15	1871	470	56	1443
Heckert, Frank L. (See Heckert, Thomas, and Heckert.)						
Heckert, William, Yonkers, N. Y. Apparatus for cleaning railway-conduits	447,181	Feb. 24	2765	{ 684 685 }	54	1074
Heckert, William, W. J. Thomas, and F. L. Heckert, Findlay, Ohio. Roasting and smelt- ing furnace	446,971	Feb. 24	2394	596	54	1004
Heckl, Adalbert, Mannheim, Germany. Candelstick	445,555	Feb. 3	43	11	54	520
Hedgeland, Frederick W., assignor to W. W. Kimball Company, Chicago, Ill. Folding key-board for organs	464,936	Dec. 8	1412	356	57	1414
Hedgeland, Frederick W., assignor to W. W. Kimball Company, Chicago, Ill. Spring- clutch for organ-pipes	464,937	Dec. 8	1413	356	57	1414
Hedges, William E., Polk Bayou, Ark. Tanning process	447,427	Mar. 3	250	.....	54	1164
Hedgman, Edward R. (See Villiers-Stead and Hedgman.)						
Heed, Jacob, assignor of one half to F. W. Hibbard, Barnesville, Ohio. Means for and method of blowing off fluids from oil or gas wells	454,432	June 16	1885	492	55	1523
Heenan, Richard H. (See Morgan, John, assignor.)						
Heene, George W., <i>et al.</i> (See Clough, George W., assignor.)						
Heene, George W., Cleveland, Ohio. Workman's time-recorder	461,478	Oct. 20	1531	375	57	308
Heene, John E., <i>et al.</i> (See Clough, George W., assignor.)						
Heermance, De Witt, Rhinebeck, N. Y. Riding-saddle	454,211	June 16	1545	406	55	1459
Heermans, Thaddeus W., Chicago, Ill., assignor to Crane Elevator Company, of Illinois. Elevator	446,679	Feb. 17	1913	{ 475 476 }	54	903
Heermans, Thaddeus W., Chicago, Ill., assignor to Crane Elevator Company, of Illinois. Elevator	455,794	July 14	814	213	56	165
Heermans, Thaddeus W., Chicago, assignor, by mesne assignments, to National Company, of Illinois. Pressure-regulator for pumps	459,384	Sept. 8	1320	330	56	1330
Heermans, Thaddeus W., Chicago, Ill., assignor, by mesne assignments, to National Com- pany, of Illinois. Valve	464,687	Dec. 8	1053	262	57	1345
Heffelfinger, Elmer, Shamokin, Pa. Printer's chase	464,070	Dec. 1	97	25	57	1156
Heffernan, Edward F., Toronto, Ontario, Canada. Watch-case	446,737	Feb. 17	2003	499	54	921
Heffernan, Matthew, Newburg, Ohio. Combined shelf-bracket, &c	448,919	Mar. 24	2682	675	54	1655
Heffley, Samuel, Rochester, Ind. Sand-band	459,232	Sept. 8	1075	262	56	1281
Heffner, Julius, and R. Stöckel, New York, N. Y. Fishing-net	458,456	Aug. 25	2496	607	56	1027

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Hefner-Alteneck, Friedrich von, Berlin, Germany. Electric clock for use in electric-lighting and other systems	455,041	June 30	2025	744	55	1733
Hegarty, Daniel A., Philadelphia, Pa. Railway-spike	462,045	Oct. 27	2433	603	57	488
Hegeman, George S. (See Hart, Gerald W., assignor.)						
Hegeman, Henry F., Milwaukee, Wis. Folding square	466,099	Dec. 29	3364	859	57	1816
Hegeman, John, Amsterdam, N. Y. Bobbin	465,852	Dec. 29	2943	753	57	1735
Heggen, Charles O., assignor to Russell & Company, Massillon, Ohio. Centrifugal oiler	447,282	Feb. 24	2940	731	54	1110
Heidel, Gustavos, assignor of one-half to M. T. Reis, St. Louis, Mo. Sad-iron	454,820	June 23	2508	645	55	1646
Heidel, Gustavos, assignor to L. Kriekhaus and R. Merkle, St. Louis, Mo. Paint-burner	459,288	Sept. 8	1163	283	56	1299
Heidel, Gustavos, assignor to W. M. Ferris, St. Louis, Mo. Sad-iron	460,868	Oct. 6	511	130	57	100
Heidepriem, Otto. (See Just, Weiler, and Heidepriem.)						
Heidt, Allen P., New York, N. Y. Window-blind	456,306	July 21	1589	420	56	320
Heighington, John B. and W., assignors to J. Heighington and M. F. Brown, Toronto, Canada. Valve-handle	447,684	Mar. 3	655	162	54	1242
Heighington, Joseph, et al. (See Heighington, John B. and W., assignors.)						
Heighington, William. (See Heighington, John B. and W.)						
Heilborn, Francis F., Plainville, Mass. Button	448,428	Mar. 17	1904	478	54	1499
Heilbronner, Samuel, New York, N. Y. Cigar	451,302	Apr. 28	2593	639	55	527
Heilmann, Fred. (See Hennemann, Henry B., assignor.)						
Heilmann, Friedrich, assignor of one-half to H. B. Hennemann, St. Louis, Mo. Shrinking-machine	453,114	May 26	2705	682	55	1114
Heilner & Strauss. (See Kern, Ferdinand, assignor.)						
Heim, Charles, and P. W. Schwander, Houston, Tex. Coin holder or package	458,735	Sept. 1	284	69	56	1120
Heimbach, Iris, Montrose, Iowa. Milk-strainer	453,081	May 26	2653	669	55	1103
Heimberger, Charles J. (See Burghard and Heimberger.)						
Heine, August, Silver Creek, N. Y. Separating-machine	455,592	July 7	478	124	56	92
Heine, August, Silver Creek, N. Y. Separating-machine	465,574	Dec. 22	2518	642	57	1643
Heine, Herman. (See Wright and Heine.)						
Heineke, Charles. (See Heineke, Martin and C.)						
Heineke, Martin, Springfield, and C. Heineke, Carlinville, Ill. Straw-stacker	465,371	Dec. 15	2186	560 561	57	1568
Heineken, William L., Brooklyn, N. Y. Detachable bottom for pipes	446,634	Feb. 17	1836	454	54	889
Heinemann, Solomon E., Detroit, Mich. Capsule	464,121	Dec. 1	168	41	57	1169
Heinemann, Solomon E., assignor to Merz Capsule Company, Detroit, Mich. Galatine capsule	447,514	Mar. 3	409		54	1195
Heinemann, Theodore W., Chicago, Ill. Suspensory bandage	454,168	June 16	1482	389	55	1446
Heinisch, Henry C., Irvington, N. J. Shears	454,735	June 23	2364	607	55	1621
Heins, Charles L., et al. (See Lee, John H., assignor.)						
Heinsdorf, Paul, Hanover, Germany. Apparatus for testing grain	454,931	June 30	2723	694	55	1694
Heintzelman, Taylor W. (See Small and Heintzelman.)						
Heinz, Henry J., Sharpsburg, and R. Hoffman, Pittsburg, Pa. Sample-exhibiting barrel-cover	445,524	Jan. 27	2440	635	54	500
Heinz, Herman R. (See Mader and Heinz.)						
Heinz, Nicholas. (See Baumeister and Heinz.)						
Heiser, William, Buffalo, N. Y. Man-hole fitting for wooden vessels	457,777	Aug. 18	1387	358 359	56	811
Heiss, Frank A., Port Jervis, assignor to A. D. Klaber, New York, N. Y. Register for duplicating apparatus	445,761	Feb. 3	405	102	54	593
Heister, William, Bellevue, Ky. Folding ladder or fire-escape	453,929	June 9	1142	298	55	1373
Heitmann, Louis, Miamisburg, Ohio. Bottle-pump	452,643	May 19	1941	487	55	957
Held, August S., Freeport, Ill. Book-holder	451,430	Apr. 28	2782	687	55	563
Heldreth, Joseph W., and J. A. Dix, Rural Retreat, Va. Washing-machine	460,965	Oct. 13	664	171	57	136
Heller, Frank, Brazil, Ind. Watch-maker's ruby-pin setter	464,870	Dec. 8	1328	333	57	1398
Heller, Friedrich G. A. (See Erlwein and Heller.)						
Heller, Friedrich G. A., assignor to Siemens & Halske, Berlin, Germany. Filament for incandescent electric lamps	448,920	Mar. 24	2683	675	54	1655
Heller, Frederick L., Caldwell, N. J. Metallic shingle	453,743	June 9	887	231	55	1324
Heller, Werner. (See Rothe, Friedrich G. H., assignor.)						
Heller, William C., Montclair, N. J. Letter-box	466,036	Dec. 29	3274	835	57	1797
Hellings, John, Philadelphia, Pa. Locking device for mail-pouches	459,331	Sept. 8	1229	301 302	56	1312
Hellings, William P., Aurora, Nebr. Temple-guard	453,166	June 2	15	5	55	1151
Helm, John, Seattle, Wash. Stapling-machine	457,049	Aug. 4	171	43	56	566
Helm, Thomas M., Milford, Mo. Calf-weaner and noddor-protector	455,618	July 7	518	134	56	99
Helming, Bernhard H., Jr., and J. M. McIntyre, Milwaukee, Wis. Horse-collar fastener	445,177	Jan. 27	1936	500	54	402
Helmold, Julius F. and R. F. A., Chicago, Ill. Sprocket and chain gearing	462,255	Nov. 3	53	13	57	562
Helmold, Richard F. A. (See Helmold, Julius F. and R. F. A.)						
Helmond, Peter, assignor to T. Byron, Chicago, Ill., and J. W. Richardson, Janesville, Wis. Device for holding brushes, &c., at angles	452,375	May 19	1509	374	55	877
Helms, George M., et al. (See Croft, David B., assignor.)						
Helmsædter, George J., Newark, N. J. Caster	445,833	Feb. 3	535	130	54	616
Helvern, Albert J., and W. B. Schwalm, Walton, Ind. Driving mechanism for planters	459,289	Sept. 8	1163	253	56	1299
Helwig, Arthur, London, England. Button-hole sewing-machine	455,207	June 30	3212	815 816	55	1789
Helwig, Arthur, London, England. Sewing-machine	465,132	Dec. 15	1798	455	57	1495
Helwig, John, Dubuque, Iowa. Bolt and rivet cutter	444,635	Jan. 13	1016	265	54	209
Hem, Halvor O., assignor to H. N. Strait, Kansas City, Kans. Corner-stand for weighing-scales	448,615	Mar. 17	2196	550	54	1554
Hemenway, Collier V., Wellington, Ohio. Brick-machine	446,064	Feb. 10	906	220 221	54	696
Hemenway, H. C., et al. (See Raab, William, assignor.)						
Hemingway, Alfred C. (See Hemingway and Aldoes, assignors.)						
Hemingway, Henry N., Auburn, N. Y. Radiator	448,036	Mar. 10	1256	320	54	1363
Hemingway, John, and D. B. Aldoes, said Hemingway assignor of one-half to A. C. Hemingway, Lynn, Mass. Channel-flap-laying machine	445,613	Feb. 3	149	39	54	540
Hemje, Charles, Annapolis, Md. Ship-of-war	458,340	Aug. 25	2316	566	56	994
Hempel, Edward C., Detroit, Mich. Curry-comb	454,269	June 16	1629	428	55	1475
Hemperley, Milton R., Philadelphia, Pa. Flash-torch for photographers	460,337	Sept. 29	2823	703	56	1639
Henahan, John, Toledo, Ohio. Apparatus for crushing stone	462,765	Nov. 10	861	226	57	725
Henckel, George, Chicago, Ill. Combined laryngoscope and tongue-depressor	447,823	Mar. 10	902	225	54	1295
Henckels, Johann A., Solingen, Germany. Steam-hammer	447,824	Mar. 10	903	225	54	1296
Hender, George L., et al. (See Whitehouse, Alonzo E., assignor.)						
Henderson, Charles C., Jamestown, N. Y. Washing-machine	450,725	Apr. 21	1669	403	55	341

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Henderson, Charles C., Centralia, assignor to Henderson-Maddock Motor Company, Goldendale, Wash. Motor for driving pumps	462,550	Nov. 3	519	126	57	650
Henderson, George G. (See Crews, Dayton, H., assignor.)						
Henderson, George W. (See Jones, John M., assignor.)						
Henderson, Henry T., Sipe Springs, Tex. Churn	461,883	Oct. 27	2184	538	57	441
Henderson, James L., assignor of one-half to A. Latham, Alameda, Cal. Motive engine	466,237	Dec. 29	3573	915	57	1856
Henderson, John, Hoboken, N. J. Snatch-block	458,658	Sept. 1	175	41	56	1698
Henderson, John, Jr., Waterbury, Conn. Oblique tumbling-barrel	462,841	Nov. 10	991	256 257	57	752
Henderson, John A., et al. (See Lasserre, Charles H., assignor.)						
Henderson, John C., New York, and F. Sargent, New Rochelle, assignors to Edison General Electric Company, New York, N. Y. Electric generator	458,702	Sept. 1	239	57	56	1111
Henderson, John J., Georgetown, Mass. Cut fabric and hemming the same	462,641	Nov. 3	663	167	57	679
Henderson, Joseph C., Troy, N. Y. Boiler-furnace	463,191	Nov. 17	1546	403	57	868
Henderson, Joseph G., Fort Dodge, Iowa. Toe-weight	456,146	July 21	1332	353	56	272
Henderson-Maddock Motor Company. (See Henderson, Charles C., assignor.)						
Henderson, Neely T., Sardis, assignor of one-half to W. F. Smith, Linden, Tex. Cotton-chopper	462,705	Nov. 10	769	200	57	708
Henderson, Travis. (See Sanders, William, assignor.)						
Henderson, William. (See Thoens and Henderson.)						
Henderson, William T., et al. (See Smith and Swain, assignors.)						
Hendey, Arthur, Denver, Colo. Lubricator	462,863	Nov. 10	1025	265	57	758
Hendrick, John K., and M. J. Hewlett, Smithland, Ky. Clip for whiffletrees	452,130	May 12	1093	278	55	788
Hendrick, William H. (See Mellin and Hendrick.)						
Hendricks, Gabriel A., Bloomington, Ind. Car-coupling	444,050	Jan. 6	104	26	54	23
Hendrickson, Loren E., Paulding, Ohio. Vaginal syringe	458,457	Aug. 25	2497	607	56	1027
Hendrickson, Robert, assignor to Foster, Merriam & Co., Meriden, Conn. Spring attachment for tilting chairs	444,355	Jan. 6	580	149	54	115
Hendryx, Andrew B., New Haven, Conn. Bird-cage	455,042	June 30	2927	745	55	1734
Hendryx, Andrew B., New Haven, Conn. Fishing-reel	459,581	Sept. 15	1639	410	56	1399
Hendryx, Andrew B., assignor to A. B. Hendryx Company, New Haven, Conn. Fishing-reel	445,403	Jan. 27	2265	588	54	468
Hendryx Company, A. B. (See Hendryx, Andrew B., assignor.)						
Henebry, Patrick F., Danbury, assignor of one-half to T. Kelly, Norwich, Conn. Spool-holder	460,534	Sept. 29	3134	783	56	1699
Hengen, Jacob, North Amherst, Ohio. Lever for stone-channeling machines	454,589	June 23	2131	549	55	1577
Hengist, Oetting G. (See Hengist, Samuel W. and O. G.)						
Hengist, Samuel W. and O. G., Kansas City, Mo. Door-hanger	446,816	Feb. 17	2122	527	54	946
Henjum, Ole A., Minneapolis, Minn. Car-brake	463,152	Nov. 17	1484	385	57	855
Henkel, Solon G., New Market, Va. Friction-clutch and speed-governor	456,652	July 28	2161	573	56	438
Henkle, Edward A., and J. C. Fowler, Washington, D. C. Apparatus for the manufacture of curved linotype-bars	446,738	Feb. 17	2004	499	54	921
Henkle, Edward A., and J. C. Fowler, Washington, D. C. Curved linotype-bar	461,338	Oct. 13	1229	312	57	246
Henkle, Leonard, Rochester, assignor to C. S. Upton, New York, N. Y. Lamp	459,400	Sept. 15	1349	338	56	1345
Henley, Isaac H., Straughn, Ind. Gate	460,134	Sept. 29	2516	626	56	1579
Henley, Micajah C., and P. Shellenback, Richmond, Ind. Pulley-lathe	446,448	Feb. 17	1563	384 385	54	835
Hennemann, Henry B. (See Heilmann, Friedrich, assignor.)						
Hennemann, Henry B., assignor of one-half to F. Heilmann, St. Louis, Mo. Adjustable photographic-printing frame	451,433	June 16	1886	492	55	1524
Hennessey, James M., et al. (See Brown, John W., assignor.)						
Hennies, Charles E., Atlanta, Ga. Cuff-holder	455,208	June 30	3214	816	55	1790
Hennig, Henry, Paterson, N. J. Coffee or tea strainer	446,680	Feb. 17	1916	477	54	903
Hennin, Alphonse, Springfield, Ill., assignor to Hennin Process Company, of Illinois. Making ammonia and gas	459,193	Sept. 8	1018	249	56	1270
Hennin Process Company. (See Hennin, Alphonse, assignor.)						
Henning, Benjamin S., New York, N. Y. Driving railway-cars	445,404	Jan. 27	2266	588	54	468
Henning, Benjamin S., New York, N. Y. Railway-car	446,065	Feb. 10	909	221 222	54	697
Henning, William B., Waterloo, Ind. Fire-escape	462,081	Oct. 27	2480	615	57	497
Henninger, Frederick A., and H. R. Dinwiddie, Columbia, Mo. Measuring-tank	455,043	June 30	2928	745	55	1734
Henratty, Edward, Portland, Oreg. Bag-holder	453,636	June 9	725	187	55	1293
Henrie, Daniel S., Three Rivers, Mich. Governor	445,178	Jan. 27	1937	500	54	402
Henriksen, Bernhardt E., San Francisco, Cal. Hose-bridge	455,619	July 7	519	134	56	100
Henry, Abijah F., Wingate, Ind. Vaporizer	451,822	May 5	576	141 142	55	689
Henry C. Hart Manufacturing Company. (See Anderson, Charles, assignor.)						
Henry, David. (See Vernon, Nathan W., assignor.)						
Henry, Frank. (See Goodrich and Henry.)						
Henry, Frank J., and F. A. Taylor, Kalamazoo, Mich. Harrow-frame	454,474	June 23	1946	507	55	1543
Henry, Fred H., Wakefield, Mass. Car-seat	461,198	Oct. 13	1008	257	57	200
Henry, Fred H., Wakefield, Mass., assignor of one-half to Wakefield Rattan Company, of Massachusetts. Car-seat	466,302	Dec. 29	3684	941	57	1876
Henry, George C., Burlington, Iowa. Cash register and indicator	465,020	Dec. 15	1594	406	57	1459
Henry, George W., assignor of one-half to R. L. Robie, Cherokee, Iowa. Composition blackboard	453,388	June 2	318		55	1207
Henry, Granville, Nazareth, Pa. Breakdown gun	461,679	Oct. 20	1849	458	57	368
Henry, Harris W., Zanesville, Ohio. Garment sleeve or leg adjusting device	461,434	Oct. 20	1403	353	57	285
Henry, John, Ardock, N. D. Grain-meter	462,006	Oct. 27	2376	589	57	478
Henry, John S., Mannheim, Pa. Cigar-cutter	465,372	Dec. 15	2187	561	57	1569
Henry, Jonas D., and W. E. Wood, Portland, Oreg. Feed-mill	449,445	Mar. 31	3551	894	54	1825
Henry, Jonas D., and W. E. Wood, Portland, Oreg. Feed-mill	459,466	Sept. 15	1453	365	56	1364
Henry, Michael, Dayton, Ohio. Fire-kindler	457,993	Aug. 18	1754	460	56	879
Henry, Robert G., Waterbury, Conn., assignor to Consolidated Safety Pin Company, Bloomfield, N. J. Buckle	447,070	Feb. 24	2565	637	54	1036
Henry, Robert P., Waddells, N. C. Hoisting apparatus	443,993	Jan. 6	7	2, 3	54	4
Henry, William, Columbia, S. C. Fire or burglar alarm	444,277	Jan. 6	469	120	54	93
Henry, William F., Normal, Ill. Whiffletree attachment for vehicles	460,823	Oct. 6	450	114	57	90
Hensch, Henry W., Davenport, Iowa. Rocker and whirler	454,681	June 23	2286	586	55	1604
Henshaw & Sickles. (See Bruner, William R., assignor.)						
Hensler, Robert. (See Mader and Heinz, assignors.)						
Henson, Joseph W., assignor of one-half to N. E. Jenuison, La Grange, Ill. Bill or letter file	448,149	Mar. 10	1416	362	54	1397

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Henthorn, John T. (See Remington and Henthorn.)						
Hepburn, Lewis L., assignor to Marlin Fire-Arms Company, New Haven, Conn. Magazine fire-arm	463,832	Nov. 24	2559	667	57	1070
Herberg, Olaf M., Hendrum, Minn. Photograph-cabinet	445,639	Feb. 3	195	52	54	550
Herbert, Alfred E. (See Hubbard and Gibbins, assignors.)						
Herbert, Gilbert J., East Orange, N. J. Coal-piler	455,328	July 7	41	12	56	11
Herbert, Michael E., St. Joseph, Mo. Steam-boiler furnace	454,350	June 16	1746	454	55	1498
Herbertz, F. A. (See Sahler, Carl, assignor.)						
Herbold Philip, Galion, Ohio. Folding bed-couch	457,349	Aug. 11	716	{ 182 183 }	56	672
Herboldshimer, George D., Westernport, Md. Machine for trimming and compressing sheet metal	447,515	Mar. 3	410	100	54	1195
Herbrand Company. (See Fetzner, James J., assignor.)						
Herby, John, Jamestown, N. Y. Farm-wagon	444,356	Jan. 6	581	149	54	116
Hercules Iron Works. (See MacDonald, Charles A., assignor.)						
Hercules Waist Band Company. (See Spitz, Frederick, assignor.)						
Herdman, Frank E., Indianapolis, Ind. Electrically-operated elevator	466,037	Dec. 29	3275	{ 835 836 }	57	1797
Herdman, William J., Ann Arbor, Mich. Electro-therapeutic apparatus	458,625	Sept. 1	119	27	56	1089
Herdeen Manufacturing Company. (See Furman, Fredric J., assignor.)						
Herford, Frank, Baraboo, Wis. Display-case	462,130	Oct. 27	2567	638	57	513
Hering, Carl, assignor of one-half to J. Hoskin, Philadelphia, Pa. Electric regulator for constant potential	454,475	June 23	1947	508	55	1543
Hering, Carl, assignor of one-half to J. Hoskin, Philadelphia, Pa. Electric regulator for constant potential	454,476	June 23	1949	508	55	1544
Hering, Emil G. (See Pomeroy, Henry N., assignor.)						
Hernance, Pulver G., Syracuse, N. Y. Tapping apparatus	459,138	Sept. 8	933	224	56	1255
Hermann, Christian, assignor of one-half to C. W. Tirrell, Bristol, R. I. Reversing-gear	454,434	June 16	1888	493	55	1524
Hermann, Christian, assignor of one-half to C. W. Tirrell, Bristol, R. I. Friction-clutch	454,435	June 16	1889	493	55	1524
Hernandez, José G., Havana, Cuba. Machine for decorticating fibrous plants	447,152	Feb. 24	2722	{ 674 675 }	54	1065
Hernon, Paul H., assignor of one-third to E. H. Mote, Leesburg, Fla. Automatic railway-switch	464,071	Dec. 1	99	25, 26	57	1156
Hernon, William S., and L. C. Buckland, Tyler, Tex. Shirt-starching machine	448,715	Mar. 24	2372	593	54	1595
Hero Fruit Jar Company. (See Perry, Franklin W., assignor.)						
Herold, Charles P., Philadelphia, Pa. Vending apparatus	461,610	Oct. 20	1732	{ 424 425 }	57	346
Heron, James C., St. Paul, Minn. Locomotive-driver brake	465,060	Dec. 15	1662	423	57	1471
Heron, William B., assignor of one-half to H. E. Bunker, Brooklyn, N. Y. Closed-conduit system for electrical propulsion	457,778	Aug. 18	1388	359	56	812
Herr, Clarence M., Chicago, Ill. Extension-table	457,901	Aug. 18	1596	{ 415 416 }	56	849
Herr, Elam K., Bloomfield, Iowa. Floor-sweeper	465,930	Dec. 29	3069	787	57	1760
Herr, Henry C., Williamsville, N. Y. Wire-stapling machine	447,428	Mar. 3	251	63, 64	54	1165
Herr, Homer A., Philadelphia, Pa. Cash-register	443,994	Jan. 6	12	3, 4	54	5
Herr, Homer A., Philadelphia, Pa., assignor to American Cash Register Company. Cash register and indicator	451,232	Apr. 28	2479	{ 612 613 }	55	504
Herrick, Albert B., New York, N. Y. Electric-current indicator	454,270	June 16	1630	428	55	1475
Herrick, Albert B., New York, N. Y. Electric meter	461,575	Oct. 20	1683	412	57	337
Herrick, Charles H., Winchester, assignor of two-thirds to H. H. Brooks, Cambridge, and A. A. Brooks, Boston, Mass. Flexible conduit for electric conductors	456,271	July 21	1529	406	56	309
Herrick, Charles H., Winchester, and W. M. Rand, Boston, Mass. Electro-magnetic switch	463,192	Nov. 17	1547	404	57	868
Herrick, Frank J., assignor to North & Judd Manufacturing Company, New Britain, Conn. Clasp	462,706	Nov. 10	770	200	57	708
Herrick, Frank J., assignor to North & Judd Manufacturing Company, New Britain, Conn. Snap-hook	466,136	Dec. 29	3431	878	57	1829
Herrick, Warren E., assignor of one-half to W. E. Holt, Vermontville, Mich. Ironing-table	456,270	July 21	1528	406	56	309
Herrick, William I., assignor of two-fifths to C. H. Lent, Schodack Landing, N. Y. Automatic danger signal for railways	459,707	Sept. 15	1847	464	56	1438
Herrin, John W., Mount Vernon, Ill. Wagon-brake	453,904	June 9	1106	289	55	1366
Herting, Augustus M., New York, N. Y. Anti-drip nose for pitchers	457,716	Aug. 11	1280	331	56	781
Herting, Joseph, Pomona, Cal. Fruit-gatherer	459,467	Sept. 15	1455	366	56	1364
Herrington, George H., Wichita, Kans. Phonograph	464,476	Dec. 1	718	175	57	1271
Herrington, William H., Lanark, Ill. Clothes-pounder	460,966	Oct. 13	665	171	57	136
Herrington, William S., assignor to himself, F. E. Jones, and J. D. De Fries, San Francisco, Cal. Railway	456,818	July 28	2438	{ 642 643 }	56	489
Herrinton, Edward E. (See Smith and Herrinton.)						
Herrmann, Albert, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Blue-green dye	453,477	June 2	475		55	1238
Herrmann, Albert, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Blue dye	463,898	Nov. 24	2676		57	1091
Herrmann, Ernest, and L. P. Cohen, Paris, France. Furnace	458,712	Sept. 1	252	60	56	1113
Herrmann, George, New York, N. Y. Rack attachment for theater or other chairs or seats	454,351	June 16	1748	454	55	1498
Herrmann, Henry, New York, N. Y. Floor	445,779	Feb. 3	440	109	54	598
Herrmann, Julius, Dresden, Saxony, Germany. Means for-handling coal	461,576	Oct. 20	1684	{ 412 413 }	57	338
Herrold, George D., Milton, Pa. Die for brick or tile machines	449,854	Apr. 7	320	83	55	64
Herrold, John, assignor to N. Hubbard, Brooklyn, and J. W. Packard, New York, N. Y. Valve for air-pumps	450,152	Apr. 14	745	189	55	151
Herron, James B. (See Park and Herron.)						
Herron, James B., assignor to H. Scarborough, Chicago, Ill. Soda-water apparatus	452,754	May 19	2121	{ 533 534 }	55	992
Herschell, William D., assignor to J. O. Colladay, Philadelphia, Pa. Table for tenon and other machines	460,069	Sept. 22	2400	{ 600 601 }	56	1550
Herschell, John T., Huntingburg, Ind. Tube-welding machine	460,135	Sept. 29	2516	626	56	1579
Hersey, Francis C., Wellesley, assignor to Hersey Manufacturing Company, Boston, Mass. Rotary steam-drier	461,577	Oct. 20	1687	413	57	338
Hersey Manufacturing Company. (See Hersey, Francis C., assignor.)						
Hersey Meter Company. (See Tilden, James A., assignor.)						
Hersh, James N., Allentown, assignor to himself, and W. R. Butler, Manch Chunk, Pa. Heating-furnace	460,811	Oct. 6	431	{ 107 108 }	57	86
Hershberger, Joseph W., Plymouth, Pa. Catch-basin for sewers	462,864	Nov. 10	1025	265	57	758

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Hershberger, William E., Neosho, Mo. Filtering apparatus.....	455,620	July 7	520	134	56	100
Hershey, Martin E., Harrisburg, Pa. Traction-engine or road-roller.....	444,980	Jan. 20	1621	414	54	332
Hershey, Martin E., Harrisburg, Pa. Road-roller.....	456,567	July 28	2015	{ 532 533 }	56	409
Herson, John, Port Huron, assignor to S. Cole, W. H. Burgess, F. and J. H. McKenney, Croswell, Mich. Attachment for fanning-mills.....	451,670	May 5	350	86	55	645
Hervey, Ida E., New York, N. Y. Hair-curler.....	456,819	July 28	2441	643	56	490
Hervey, Walter D., Chenoa, Ill. Land-marker.....	463,510	Nov. 17	2039	{ 534 535 }	57	963
Hervy, Alphonse M. P., Aix-sur-Vienne, France, assignor of one-half to H. Morand, Roxbury, Mass. Kerosene-burner.....	458,901	Sept. 1	555	135	56	1171
Herwig, Ernest F. (See Boyer, Léon, assignor.)						
Herz, Martin, New York, N. Y. Child's carriage.....	456,490	July 21	1892	500	56	377
Herzberg, Abram. (See Herzberg, Isaac and A.)						
Herzberg, Isaac and A., Philadelphia, Pa. Regulating electric lights and power.....	454,650	June 23	2242	576	55	1595
Herzberg, Morris, <i>et al.</i> (See Carpenter, James H., assignor.)						
Herzberg, Morris, Chambers county, Ala. Bottle-stopper.....	402,766	Nov. 10	862	226	57	726
Hescock, Henry J., and P. A. Sawyer, Phillips, Me.; said Sawyer assignor to said Hescock. Fancet.....	451,895	May 5	677	171	55	707
Hess, Christian, Steelton, Pa. Vending apparatus.....	465,373	Dec. 15	2189	561	57	1569
Hess Electric Storage Battery Company. (See Morrison, William, assignor.)						
Hess, Goldsmith & Co. (See Haytock, Benjamin, assignor.)						
Hess, Mary E., Foristell, Mo. Remedy for coughs, &c.....	445,470	Jan. 27	2355	.....	54	485
Hess, Nicolas F. (See Bläsi, Joseph, assignor.)						
Hess, Walter W. (See MacLearn, John P., assignor.)						
Hess, Wendell, Jr., Troy, N. Y. Flat-iron and heater therefor.....	462,131	Oct. 27	2568	638	57	514
Hesse, Frank K., assignor to Codman & Shurtleff, Boston, Mass. Surgical explorer.....	448,150	Mar. 10	1419	362	54	1397
Hesser, Albert A., Schuylkill Haven, Pa. India-rubber water-bag.....	446,518	Feb. 17	1672	408	54	856
Hesse, Frank K., assignor to Codman & Shurtleff, Boston, Mass. Veterinary file.....	454,436	June 16	1891	493	55	1524
Hesser, Charles F. (See Lamb and Van Dyke, assignors.)						
Hesser, Joseph M., Kipton, Ohio. Double-gear self-adjusting vise.....	456,568	July 28	2018	533	56	409
Hessler, Jacob R., Chicago, Ill. Organ.....	451,124	Apr. 28	2285	565	55	468
Hessong, James, Chillicothe, Ohio. Wagon-body.....	455,044	June 30	2929	745	55	1734
Hessong, James, Chillicothe, Ohio. Vehicle-spring.....	459,005	Sept. 8	710	174	56	1212
Hester, T. W., <i>et al.</i> (See Rogers, George R., assignor.)						
Heston, David, Philadelphia, Pa., assignor to Wyckoff, Seamans & Benedict, New York, N. Y. Key-locking mechanism for type-writing machines.....	456,033	July 14	1172	307	56	231
Hetherington, Frederick A., Indianapolis, Ind. Camera.....	460,099	Sept. 22	2449	612	56	1559
Hetherington, Frederick A., Indianapolis, Ind. Photographic camera.....	463,123	Nov. 10	1441	372	57	840
Hetrick, William, Mexico, Pa. Harrow.....	454,352	June 16	1749	455	55	1498
Hett, Michel, Münster-eifel, Germany. Priming-machine for kindling fires.....	445,261	Jan. 27	2067	533	54	427
Hettel, Anthony, Rochester, N. Y. Band-saw guide.....	446,568	Feb. 17	1745	429	54	871
Hettterschied, William, Grand Rapids, Mich. Adjustable table.....	466,303	Dec. 29	3684	941	57	1876
Hettich Sohn, Firm of Gordin. (See Weisser, Theodor, assignor.)						
Hettinger, Friederich C., Philadelphia, Pa. Balanced slide-valve.....	462,816	Nov. 10	948	247	57	744
Hettmansperger, Louis F. (See Linville and Hettmansperger.)						
Heuer, Ernst, Fort Wayne, Ind. Crown-sheet of steam-boilers.....	461,180	Oct. 13	971	250	57	193
Heuer, Henry F. (See Hodson, Benjamin M., assignor.)						
Heuer, Henry F., Chicago, Ill. Railway-car.....	446,449	Feb. 17	1565	385	54	835
Heughes, Frederick L., Rochester, N. Y. Fire-proof arch.....	448,233	Mar. 17	1567	400	54	1435
Heulings, Samuel M., Jr., and E. Evans, Haddonfield, N. J. Milk-cooler.....	457,533	Aug. 11	1002	256	56	727
Heurtey, René. (See Meylan and Reckniewski, assignors.)						
Heuser, Gustav, Brooklyn, N. Y. Loop-button.....	450,510	Apr. 14	1312	322	55	259
Heuser, Gustav, Brooklyn, N. Y. Button-making machine.....	466,304	Dec. 20	3685	941	57	1876
Heuser, John A., Pulaski City, Va. Clock.....	453,637	June 9	726	187	55	1293
Housner, Louis D., Chicago, Ill. Railway-ticket.....	461,409	Oct. 13	1359	342	57	271
Hewes, Fletcher W., Bloomfield, N. J. Marginal index.....	455,817	July 14	850	225	56	173
Hewett, Ernest M. G., assignor to A. L. Jewell, Boston, Mass. Electric motor.....	451,870	May 5	642	{ 160 161 }	55	700
Hewett, Ernest M. G., Boston, assignor to G. L. Weil, North Andover, Mass. Electric motor.....	460,087	Sept. 22	2431	608	56	1556
Hewett, Robert J., St. Louis, Mo. Insulating-support for electric conductors.....	461,631	Oct. 20	1777	437	57	354
Hewitson, John. (See Jackson and Hewitson.)						
Hewitt, A. M., <i>et al.</i> (See Topi, Ettore, assignor.)						
Hewitt, Isaac W. (See Snyder, William H., assignor.)						
Hewitt, Jackson W., Jackson, Mich. Two-wheeled vehicle.....	445,556	Feb. 3	45	12	54	520
Hewitt, Joseph F., Allegheny, Pa. Lining for fire-places.....	463,278	Nov. 17	1682	439	57	894
Hewitt, Lansing F., and S. W. Buence, Turner, Kans. Tire-tightener.....	446,869	Feb. 24	2221	552	54	974
Hewlett, Maddra J. (See Hendrick and Hewlett.)						
Hewlin, Finley. (See Farmer, Henry, assignor.)						
Hey, George W., Syracuse, N. Y., assignor to International Postal Supply Company, of New York. Letter feeding and separating apparatus.....	454,405	June 16	1838	481	55	1514
Hey, Wilkinson & Parsons, <i>et al.</i> (See Walker, Moses F., assignor.)						
Heydenreich, Ernst C., Mount Clemens, Mich. Tool-holder.....	455,101	June 30	3032	770	55	1754
Heyder, Herman, Reichthal, Germany. Violin.....	446,450	Feb. 17	1566	385	54	835
Heyder, Herman, Reichthal, Germany. Shoulder-brace.....	447,464	Mar. 3	324	81	54	1179
Heyer, Frank and G. W., Philadelphia, Pa. Salt-cellar.....	465,526	Dec. 22	2439	621	57	1628
Heyer, George W. (See Heyer, Frank and G. W.)						
Heyerdahl, Peter M., Trondhjem, assignor to P. Möller, Christiania, Norway. Making cod-liver oil.....	450,873	Sept. 22	2110	.....	56	1496
Heyl, Henry R., assignor to I. Fine, Philadelphia, Pa. Stapling-machine.....	444,178	Jan. 6	328	80	54	66
Heylman, Edward M., Rockford, Ill., assignor to Rockford Manufacturing Company. Corn-planter.....	451,871	May 5	643	{ 161 162 }	55	701
Heymeier, Gustav, and H. Wehmann, Bremen, Germany. Cutter-head.....	458,030	Aug. 18	1813	472	56	891
Heyn, Alfred, New York, N. Y. Rail-chair.....	449,261	Mar. 31	3211	810	54	1764
Heynemann, Lionel, San Francisco, Cal. Cable street-railway.....	444,437	Jan. 13	714	187	54	149
Heyns, John J., and M. V. Bresnahan, Lynn, Mass. Sole-machine.....	456,413	July 21	1764	{ 466 467 }	56	353
Heyser & Sons, S. (See Devenport, Arthur K., assignor.)						
Heysinger, Isaac W., Philadelphia, Pa. Pen-puller.....	445,673	Feb. 3	265	70	54	565
Heysinger, Isaac W., Philadelphia, Pa. Phonograph-tablet.....	460,338	Sept. 29	2824	703	56	1639
Heysinger, Isaac W., Philadelphia, Pa. Spring folding rack.....	463,080	Nov. 24	2335	613	57	1027
Heywood Brothers & Co. (See Watkins, Gardner A., assignor.)						
Hiatt, Thomas, Leesburg, Fla. Machine for wrapping oranges.....	446,451	Feb. 17	1566	{ 385 386 }	54	836

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Hibbard, Angus S. (See Hayes and Hibbard.)						
Hibbard, Angus S., Morristown, N. J., assignor to American Telephone and Telegraph Company, of New York. Distributing-frame for electric conductors	453,863	June 9	1051	275	55	1356
Hibbard, Charles L., assignor of one-half to I. B. Smith, Cedar Rapids, Mich. Type-holding device for type-writing machines	454,271	June 16	1632	428	55	1476
Hibbard, Francis W. (See Heed, Jacob, assignor.)						
Hibberd, Harry H., Wheeling, W. Va. Natural-gas burner	459,783	Sept. 22	1965	495	56	1467
Hibbert, William E., and A. Manuel, Wilmington, Del.; said Manuel assignor to said Hibbert. Bicycle	446,098	Feb. 10	957	{ 235 236 }	54	705
Hibler, Sarah K., Stamford, Conn. Press-board	454,477	June 23	1950	508	55	1544
Hickenlooper, Andrew, Cincinnati, Ohio. Gas-retort charger	456,569	July 28	2019	{ 533 534 }	56	410
Hickley, Arthur S., Richmond, assignor of one-half to J. C. Shaffer, Indianapolis, Ind. Trolley for electric railways	450,153	Apr. 14	747	189	55	152
Hickman, Edgar M., assignor to Gale Manufacturing Company, Albion, Mich. Colter-holder for plows	446,452	Feb. 17	1572	386	54	837
Hickman, John D., London, England. Device for shipping boats' rudders	456,820	July 28	2442	{ 643 644 }	56	490
Hickman, William F., Clear Creek, Kans. Listed-corn cultivator	462,642	Nov. 3	663	167	57	679
Hickman, Willie, and H. C. Spindle, Cherry Camp, W. Va. Car-coupling	453,478	June 2	477	123	55	1238
Hickox, Robert A., Santa Ana, assignor of one-half to W. B. Wood, Orange, Cal. Lamp-stove	462,132	Oct. 27	2570	639	57	514
Hicks, Albert S., assignor of one-half to L. Eisenberg, Livingston, Mont. Shoe-buttoner	459,612	Sept. 15	1692	424	56	1408
Hicks, Bohn C., Minneapolis, Minn., assignor, by mesne assignments, to Hicks Stock Car Company, Chicago, Ill. Double-deck stock-car	449,621	Mar. 31	3841	{ 961 962 }	54	1879
Hicks, Bohn C., Minneapolis, Minn., assignor, by mesne assignments, to Hicks Stock Car Company, Chicago, Ill. Watering-trough for stock-cars	449,622	Mar. 31	3843	962	54	1880
Hicks, Bohn C., Minneapolis, Minn., assignor to Hicks Stock Car Company, of West Virginia. Stall-partition for stock-cars	449,740	Apr. 7	148	37	55	30
Hicks, Bohn C., Chicago, Ill., assignor to Hicks Stock Car Company, of West Virginia. Double-deck stock-car	451,682	May 5	367	90, 91	55	649
Hicks, Bohn C., Chicago, Ill., assignor to Hicks Stock Car Company, of West Virginia. Stock-car	455,534	July 7	378	97	56	74
Hicks, Bohn C., Chicago, Ill., assignor to Hicks Stock Car Company, of West Virginia. Stock-car	455,714	July 7	675	178	56	130
Hicks, Bohn C., Chicago, Ill., assignor to Hicks Stock Car Company, of West Virginia. Stock-car	455,715	July 7	676	178	56	130
Hicks, Bohn C., Chicago, Ill., assignor to Hicks Stock Car Company, of West Virginia. Stock-car	455,716	July 7	677	179	56	131
Hicks, Charles A. (See Merrill, Anson P., assignor.)						
Hicks, Edwin P., McAlester, Indian Ter. Musical instrument	465,761	Dec. 22	2799	716	57	1697
Hicks, Francis H., Little Rock, Ark. Metallic railway-tie	466,168	Dec. 29	3475	888	57	1838
Hicks, George A., Providence, R. I. Trousers-support	450,809	Apr. 21	1803	437	55	366
Hicks, James J., London, England, and H. Pinchetti, Lugano, Switzerland; said Pinchetti assignor to said Hicks. Clinical thermometer	460,013	Sept. 22	2313	580	56	1534
Hicks, John M. W., New York, N. Y. Calendar	457,717	Aug. 11	1281	{ 331 332 }	56	781
Hicks, Oliver H., Chicago, Ill., assignor to Morgan Envelope Company, Springfield, Mass. Toilet or wrapping paper	453,003	May 26	2523	639	55	1078
Hicks, Oliver H., Chicago, Ill.; assignor to J. W. Sefton Manufacturing Company, of Indiana. Paper box	458,533	Aug. 25	2623	639	56	1052
Hicks, Samuel F., Arlington, Mass. Machine for forming sheet-metal skylight-bars	455,621	July 7	522	{ 134 135 136 137 }	56	100
Hicks Stock Car Company. (See Hicks, Bohn C., assignor.)						
Hicks, Thomas A., et al. (See Elliott, Mahlon E., assignor.)						
Hicks, Thomas H., assignor of one-half to G. F. Case, Detroit, Mich. System of electric distribution	465,854	Dec. 29	2946	753	57	1735
Hicks, Thomas H., assignor of two-thirds to G. F. Case and E. D. Richmond, Detroit, Mich. Electric machine	465,853	Dec. 29	2944	753	57	1735
Hicks, Thomas H., assignor of one-half to H. L. Obetz, Detroit, Mich. Alternating-current dynamo	465,855	Dec. 29	2949	753	57	1736
Hicks, Thomas H., assignor of one-half to H. L. Obetz, Detroit, Mich. Alternating-current dynamo	465,994	Dec. 29	3204	817	57	1783
Hicks, William H., et al. (See Rogers, George R., assignor.)						
Hieatzman, Arthur H., Baltimore, Md. Cigar-case	450,312	Apr. 14	1003	248	55	199
Hield, Willard J., Minneapolis, Minn. Splice for electric conductors	464,022	Dec. 1	28	8	57	1141
Hieronymus, Philipp, New York, N. Y. Galvanic battery	461,262	Oct. 13	1113	284	57	222
Hiestand, Charles, Spinnerstown, Pa. Cultivator	463,229	Nov. 17	1601	417	57	878
Higbee, Clinton A., Princeton, Ky. Screw bolt and nut	447,775	Mar. 10	816	202	54	1279
Higbee, Joseph, Bloomfield, Iowa. Lock	449,677	Apr. 7	46	11	55	11
Higginbotham, Charles T., Thomaston, Conn. Stem winding and setting watch	458,366	Aug. 25	2259	{ 575 576 }	56	1002
Higginbottom, James, Liverpool, England. Purifier and separator	448,520	Mar. 17	2039	510	54	1524
Higginbottom, Lloyd. (See Smith, Goddard, Higginbottom, and Mannoek.)						
Higgins, Charles, and J. Gregory, Clay City, Ill. Traction-engine	460,375	Sept. 29	2882	719	56	1650
Higgins, Charles J., Hallowell, Me. Tubular lantern	457,350	Aug. 11	717	183	56	672
Higgins, Charles L., assignor of one-half to W. B. Carter, Springfield, Mass. Book-leaf holder	457,764	Aug. 11	1370	353	56	601
Higgins, Charles M., Brooklyn, N. Y. Mucilage and adhesive compound	466,238	Dec. 29	3575	57	57	1857
Higgins, Charles M., Brooklyn, N. Y. Adhesive compound	466,239	Dec. 29	3575	57	57	1857
Higgins, Charles M., Brooklyn, N. Y. Mucilage	466,240	Dec. 29	3577	57	57	1857
Higgins, Edward S., and H. C. Jenkins, London, England. Type-writing machine	448,037	Mar. 10	1257	{ 321 322 }	54	1364
Higgins, Freeman, Manchester, N. H. Reversing mechanism for lathes	447,825	Mar. 10	904	225	54	1296
Higgins, John. (See Kramer, Charles F., assignor.)						
Higgins, Joseph C., New Brunswick, N. J. Expandible horseshoe-calk	464,871	Dec. 8	1329	333	57	1398
Higgins, Samuel G., Saginaw, Mich. Memorandum or scrap file	458,394	Aug. 25	2410	586	56	1011
Higgins, Walter B., San Francisco, Cal. Water-motor	460,390	Sept. 29	2900	724	56	1653
Higgins, Welter C., Norwich, Conn. Steam and hot-water generator	453,697	June 9	823	209	55	1312
Higgs, Joseph W., Sharon, Pa. Valve for gas-burning furnaces	452,347	May 12	1464	362	55	858
High, William, Morrison, Ill. Merchandise-exhibiting rack	462,082	Oct. 27	2480	616	57	498

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Higham, C. C., <i>et al.</i> (See Wahlert, Henry A., assignor.)						
Higley Sawing and Drilling Machine Company. (See Hammond, Wilberforce B., assignor.)						
Higham, Howard H., Philadelphia, Pa. Manufacture of hooped boxes	449,413	Mar. 31	3501	{ 880 881 }	54	1816
Hilbert, Baptiste, Worcester, Mass. Loom for weaving pile fabrics	452,918	May 26	2374	{ 601 602 }	55	1049
Hildreth, Charles L., assignor to Lowell Machine Shop, Lowell, Mass. Carding-engine ..	457,319	Aug. 4	629	166	56	650
Hildreth, Charles L., assignor to Lowell Machine Shop, Lowell, Mass. Carding-engine ..	458,576	Sept. 1	44	9, 10	56	1074
Hildreth, Clifford A. (See Ridge, Willis G., assignor.)						
Hildreth, George H., Cincinnati, Ohio. Ventilator for mattresses	460,439	Sept. 29	2964	741	56	1665
Hildreth, Henry L., Saginaw, Mich. Low-water alarm	446,453	Feb. 17	1573	387	54	837
Hildreth, Samuel W., assignor to himself and I. F. Chase, Voluntown, Conn. Railway drawing-head	449,477	Mar. 31	3605	{ 907 908 }	54	1836
Hilgenberg, Gebrüder. (See Geng, Mathias, assignor.)						
Hill, Alfred B., Prairie du Chien, Wis. Cistern-cleaner	448,340	Mar. 17	1773	448	54	1474
Hill, Andrew G., Prescott, Canada. Disk harrow	444,317	Dec. 1	494	118	57	1228
Hill, Benjamin B., Philadelphia, Pa. Hand printing-press	451,971	May 12	815	207	55	740
Hill, Charles F., Phelps, N. Y. Combination-tool	465,560	Dec. 22	2495	637	57	1638
Hill, Charles G., Arnot Hill, England. Ruching-machine	464,648	Dec. 8	980	{ 244 245 }	57	1332
Hill, Charles M. (See Hill, George A. and C. M.)						
Hill, Chet S., <i>et al.</i> (See Campbell, George L., assignor.)						
Hill, Christian C. (See Bacon and Hill.)						
Hill, Clement A., Sheffield, England. Spring appliance for harness	457,156	Aug. 4	343	88	56	599
Hill, Cornelia E., Floyd, Iowa. Machine for winding warp	459,784	Sept. 22	1966	495	56	1467
Hill, Ebenezer, South Norwalk, Conn. Stuffing-box for piston-rods	444,668	Jan. 13	1076	279	54	220
Hill, Ebenezer, South Norwalk, Conn. Governing the movements of pistons in steam-engines	446,183	Feb. 10	1113	272	54	732
Hill, Ebenezer, South Norwalk, Conn. Duplex steam-engine	448,429	Mar. 17	1905	{ 478 479 }	54	1499
Hill, Ebenezer, South Norwalk, Conn. Air-compressor	448,859	Mar. 24	2602	{ 653 654 }	54	1639
Hill, Ebenezer, South Norwalk, Conn. Air-compressor	452,132	May 12	1112	283	55	791
Hill, Ebenezer, South Norwalk, Conn. Air-compressor	454,590	June 23	2132	550	55	1577
Hill, Ebenezer, South Norwalk, Conn. Cut-off valve for steam-engines	457,558	Aug. 11	1042	267	56	736
Hill, Ebenezer, South Norwalk, Conn. Air-compressor	463,386	Nov. 17	1862	486	57	928
Hill, Edgar A., <i>et al.</i> (See Hill, Edward A., assignor.)						
Hill, Edward A., assignor of one-half to J. L. Mallory and E. A. Hill, Chicago, Ill. Grain-car door	454,212	June 16	1546	407	55	1459
Hill, Edward K., Worcester, Mass. Valve mechanism for steam-engines	450,866	Apr. 21	1898	465	55	384
Hill, Edwin L. (See Goss, William C., assignor.)						
Hill, Frederick B., assignor of three-fourths to J. Sinclair, London, England. Ice-making and refrigerating apparatus	462,551	Nov. 3	521	127	57	651
Hill, Frederick B., assignor of three-fourths to J. Sinclair, London, England. Ice-making, cooling, and refrigerating apparatus	464,434	Dec. 1	652	161	57	1259
Hill, George. (See Wood, Charles, assignor.)						
Hill, George A. and C. M., Brooklyn, N. Y. Type-writing machine	465,021	Dec. 15	1597	407	57	1460
Hill, George S., Lynn, Mass. assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Sewing-machine needle-guide	447,729	Mar. 3	723	181	54	1254
Hill, George S., Bradford, Mass. assignor to Reece Button Hole Machine Company, Portland, Me. Tension-releasing device for button-hole sewing-machines	457,463	Aug. 11	893	230	56	706
Hill, George S., Bradford, Mass. assignor to Reece Button-Hole Machine Company, Portland, Me. Button-hole-stitching machine	462,865	Nov. 10	1027	{ 265 266 }	57	759
Hill, George W. (See Bredenberg, Alfred, assignor.)						
Hill, Gilman C., Waterbury, Conn. assignor, by mesne assignments, to Springfield Specialty Manufacturing Company, Springfield, Mass. Lacing-stud	464,460	Dec. 1	693	170	57	1267
Hill, Harry W., Cleveland, Ohio. Self-oiling journal-box	453,836	June 9	1022	266	55	1350
Hill, Henry M. (See Bumstead, William T., assignor.)						
Hill, Homer C., Clinton, Ill. Sully	455,987	July 14	1102	290	56	218
Hill, James. (See Hattersley and Hill.)						
Hill, James F., Fleetwood, Pa. Fire-escape	462,866	Nov. 10	1031	266	57	759
Hill, John A. (See Miller and Hill.)						
Hill, John J., Chicago, Ill. Railway-switch appliance	450,329	Apr. 14	1031	254	55	204
Hill, John T., and B. Meiring, Cleveland, Ohio. Track-rail for electric street-railways ..	460,967	Oct. 13	666	171	57	136
Hill, Leroy D., assignor to Sheldon Axle Company, Wilkes-Barré, Pa. Machine for forming fan-tail axles	455,593	July 7	480	{ 124 125 }	56	93
Hill, Leroy D., assignor to Sheldon Axle Company, Wilkes-Barré, Pa. Mill for rolling fan-tail axles	456,570	July 28	2021	534	56	410
Hill, Loren H., Oakdale, assignor of one-half to J. K. Kendrick, Germantown, Cal. Grain-separating mechanism for traveling thrashers	445,112	Jan. 20	1822	471	54	371
Hill, Louis A., assignor of one-half to L. H. Gilbert, Philadelphia, Pa. Tire for velocipedes ..	459,363	Sept. 8	1279	315	56	1322
Hill, Nelson H., Armada, Mich. Road-cart	451,671	May 5	351	86	55	646
Hill, Norman N., East Hampton, Conn. Bell	454,370	Jan. 27	2214	574	54	458
Hill, Norman N., East Hampton, Conn. Toy bell	455,943	July 14	1033	270	56	206
Hill, Oswald. (See Britt, Edward, assignor.)						
Hill, Richard T. (See Le Roy, Charles J., assignor.)						
Hill, Romulus E., Evanston, Ill. Drawers	454,736	June 23	2365	607	55	1621
Hill, Samuel A., assignor to W. Wood, Philadelphia, Pa. Traveling hoist	456,326	July 21	1619	429	56	326
Hill, Silas E., Traverse City, Mich. Ironing and polishing machine	462,552	Nov. 3	525	{ 127 128 }	57	651
Hill, Terelius A., High Point, N. C. Quilting attachment for sewing-machines	464,072	Dec. 1	102	26	57	1157
Hill, Thomas, Jersey City, N. J. Dumping-wagon	460,869	Oct. 6	511	130	57	101
Hill, Thomas, Jersey City, N. J. Platform-wagon	460,870	Oct. 6	512	131	57	101
Hill, Thomas, Jersey City, N. J. Dumping-wagon	460,871	Oct. 6	513	131	57	101
Hill, Thomas, Portland, Me. assignor to M. Bradley Company, Springfield, Mass. Game-board	452,133	May 12	1117	284	55	792
Hill, Wade H. (See Rheutan, Abram A., assignor.)						
Hill, Warren S., Boston, Mass. Electric motor	457,534	Aug. 11	1004	257	56	728
Hill, Wilford A., and W. F. Foss, Waltham, Mass. Machine for indenting letters or figures in metal	452,605	May 19	1878	{ 472 473 }	55	945
Hill, William E., Kalamazoo, Mich. Log-loader	453,864	June 9	1054	276	55	1357
Hill, William E., Kalamazoo, Mich. Combined lath bundling and trimming machine	460,049	Sept. 22	2372	593	56	1545
Hillabold, Charles D., assignor of one-half to M. S. Bentz, Canton, Kans. Cutting apparatus ..	458,231	Aug. 25	2127	551	56	958

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Hille, Carl. (See Arnold, Gustav, assignor.)						
Hille, Gustav L., G. A. and M. A. Audsley, London, England. Machine for coloring or ornamenting india-rubber balls	455,493	July 7	304	77	56	61
Hille, Gustav L., G. A. and M. A. Audsley, London, England. Machine for coloring, printing, or ornamenting india-rubber balls	455,877	July 14	936	246	56	188
Hillhouse, Charles B., <i>et al.</i> (See Stoner, John B., assignor.)						
Hilliard, John P., Allegheny, Pa. Brake-beam	466,078	Dec. 29	3331	850	57	1810
Hilliard, John S., Philadelphia, Pa. Odometer	448,716	Mar. 24	2373	594	54	1595
Hillier, Alonzo, <i>et al.</i> (See Hillier, Thomas A., assignor.)						
Hillier, Thomas A., assignor to A. Hillier and F. P. Morgridge, Philadelphia, Pa. Railway-ticket punch	462,912	Nov. 10	1104	288	57	773
Hilliker, Charles P. (See Fauce, Zachary T., assignor.)						
Hillis, Henry H., Greencastle, Ind. Brick-kiln	461,479	Oct. 20	1532	375	57	309
Hillis, John, <i>et al.</i> (See Hines, David, assignor.)						
Hillman, Jotham R. (See Scott and Hillman.)						
Hillman, William, Coventry, England. Apparatus for drilling spoke-holes in felloes	457,718	Aug. 11	1284	{ 332 333 333 }	56	782
Hillman, William, Coventry, England. Machine for boring spoke-holes in hubs	457,719	Aug. 11	1286	{ 334 335 335 }	56	783
Hillman, William, assignor to Auto Machinery Company, Limited, Coventry, England. Screw-making machine	462,553	Nov. 3	526	{ 128 129 }	57	651
Hillmann, Beriah T. (See Stuart, Onslow, assignor.)						
Hills, James E. (See Williams, Frank E., assignor.)						
Hills, James E., Brooklyn, N. Y. Button or stud	453,273	June 2	146	41	55	1176
Hills, Theophilus E. (See Smith and Hills.)						
Hills, William J., Bridgeport, Conn. Revolving paper-holder	458,577	Sept. 1	46	10	56	1074
Hillyer, Lillian S., East Orange, N. J. Shade or globe holder	456,034	July 14	1173	308	56	231
Hilt, Daniel, Helam, Pa. Rock-drill	464,612	Dec. 8	923	227	57	1321
Hilton, John, assignor of one-half to T. Beveridge, Paterson, N. J. Woven fabric	457,765	Aug. 11	1371	453	56	802
Hilton, Sarah E., <i>et al.</i> (See Abbots, James A., assignor.)						
Hilton, Sylvester B., and W. H. Monahan, Olean, N. Y. Barrel-rolling implement	454,042	June 16	1297	338	55	1411
Hime, Charles F., and J. H. Noad, London, England. Waterproofing and preserving textures and other materials	456,821	July 28	2443		56	490
Himmes, Jacob. (See Himmes, Michael and J.)						
Himmes, Michael and J., Chicago, Ill. Bridge-gate	460,797	Oct. 6	414	{ 101 102 }	57	82
Himrod, Charles. (See Curtis and Himrod.)						
Hinchliffe, James H., Laconia, assignor to S. Hodgson, Meredith, N. H. Circular-knitting machine	450,291	Apr. 14	964	{ 239 240 }	55	192
Hinchman, George N., Jr. (See Pickles and Hinchman.)						
Hinchman, Henry C., Johnston, Pa. Dental mallet	462,133	Oct. 27	2570	639	57	514
Hinckley, A. G., <i>et al.</i> (See Delane, Anson W., assignor.)						
Hinckley, Henry D., Hartford, Conn., assignor of one-half to J. G. Rich, Auburn, N. Y. Vending-machine	455,508	July 7	326	83, 84	56	65
Hinckley, Howard, Trenton, N. J. Pressure-regulator for car-brakes	448,234	Mar. 17	1568	401	54	1435
Hinckley, Howard, Trenton, N. J. Slack take-up for car-brakes	465,266	Dec. 15	2001	512	57	1534
Hincks & Johnson. (See Carpenter, George J., assignor.)						
Hinden, Mathias J., Cleveland, Ohio. Steam-engine	461,263	Oct. 13	1114	{ 284 285 }	57	222
Hindes, George A., Rockford, Ill. Gage	456,331	July 21	1628	431	56	328
Hindman, Asa W., Chester, Nebr. Cattle-dehorner	451,049	Apr. 28	2183	539	55	447
Hindman, James W., assignor of one-half to J. E. Alum, West Alexander, Pa. Nut-lock	459,185	Sept. 8	1007	246	56	1268
Hine, James W., assignor to Fenton Metallic Manufacturing Company, Jamestown, N. Y. Book-rack	458,902	Sept. 1	557	135	56	1172
Hinds, Jesse L., assignor to Electric Engineering and Supply Company, Syracuse, N. Y. Lamp-socket	466,288	Dec. 29	3662	937	57	1872
Hinds, Jesse L., assignor to Electric Engineering and Supply Company, Syracuse, N. Y. Lamp-socket	466,289	Dec. 29	3665	937	57	1873
Hinds, Jesse L., assignor to Electric Engineering and Supply Company, Syracuse, N. Y. Lamp-socket	466,290	Dec. 29	3667	937	57	1873
Hinds, Joseph E., Brooklyn, N. Y. Machine for making paper boxes	454,908	June 30	2601	{ 681 682 }	55	1682
Hinds, Melvin B., Everett, Mass. Brush-handle	449,478	Mar. 31	3607	908	54	1836
Hine, Adelbert P., assignor to Coe Brass Manufacturing Company, Torrington, Conn. Scrap-cutter for metal-slitting machines	454,353	June 16	1750	455	55	1498
Hine, Charles C., Newark, N. J. Fusible support for hatch-doors, &c.	449,414	Mar. 31	3502	881	54	1817
Hine, Charles M., Pittsburg, assignor, by mesne assignments, of two-thirds to T. L. Shields, Allegheny, Pa. Feeding mechanism for sewing-machines	454,043	June 16	1298	338	55	1411
Hine, Charles M., assignor, by mesne assignments, of two-thirds to T. L. Shields, Allegheny, Pa. Feed mechanism for sewing-machines	454,044	June 16	1300	339	55	1412
Hine, James W., Jamestown, N. Y. Book-rack	447,730	Mar. 3	724	182	54	1255
Hine, James W., assignor to Fenton Metallic Manufacturing Company, Jamestown, N. Y. Shelf-fastening	445,951	Feb. 3	707	172	54	651
Hines, August H., assignor of one-half to J. B. Schmidt, New Orleans, La. Combined bridge and tail-piece for guitars	462,554	Nov. 3	531	129	57	652
Hines, David, Cambridge, assignor of two-thirds to E. De La Granja and J. Hillis, Boston, Mass. Fender or safety attachment for electric or other cars	450,460	Apr. 14	1236	302	55	242
Hines, Samuel, <i>et al.</i> (See McEwen and Cartwright, assignors.)						
Hinkle, Leonard, Indianapolis, Ind. Clamp carpet-stretcher	456,001	July 14	1125	295	56	222
Hinkle, William H. (See Lusk and Hinkle.)						
Hinman, Wilbur S., assignor of one-half to J. H. Shay, Streator, Ill. Refrigerator	465,043	Dec. 15	1631	415	57	1466
Hinner, Josef, Vienna, Austria-Hungary. Button	456,272	July 21	1530	406	56	310
Hinote, E. T. (See Moomaw, Henry E., assignor.)						
Hinrichs, Charles F., and J. C. Barker, Poplar Bluff, Mo. Steam-cylinder	458,458	Aug. 25	2498	608	56	1027
Hinsdale, William R., Jersey City, N. J. Forming ingots	444,381	Jan. 6	622	161	54	123
Hinsdale, William R., East Orange, N. J. Casting ingots	448,881	Mar. 24	2628	660	54	1643
Hinsdale, William R., Newark, N. J. Slide-valve	444,438	Jan. 13	715	{ 187 188 }	54	149
Hinsdale, William R., Newark, N. J. Ingot-stripping device	453,325	June 2	226	59, 60	55	1191
Hinsdale, William R., Newark, N. J. Protective tip for ingots	456,953	Aug. 4	52	12	56	542
Hinsdale, William R., Newark, N. J. Hydraulic cylinder	458,300	Aug. 25	2250	{ 549 550 }	56	981

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Hinson Car Coupler Company. (See Hinson, James A., assignor.)						
Hinson Car Coupler Company. (See Reagan, Paul M., assignor.)						
Hinson, James A., Des Moines, Iowa. Car-coupling	460,351	Sept. 29	2848	709	56	1644
Hinson, James A., Des Moines, Iowa. Cushioning device for draw-bars	461,339	Oct. 13	1230	313	57	246
Hinson, James A., assignor to Hinson Car Coupler Company, Des Moines, Iowa. Car-coupling	464,825	Dec. 8	1263	{ 315 316 }	57	1385
Hinton, Eugene H. (See Sutphen, Clinton, assignor.)						
Hintz, Adolph. (See Hintz, William and A.)						
Hintz, William and A., North Amherst, Ohio. Car-coupling	465,267	Dec. 15	2004	513	57	1535
Hipwell, Harry H., Allegheny, Pa. Guard for incandescent lamps	459,749	Sept. 22	1916	483	56	1458
Hipwell, Thomas, Long Island City, assignor to Manhattan Brass Company, New York, N. Y. Argand lamp	457,587	Aug. 11	1089	278	56	745
Hipwell, Thomas, Long Island City, assignor to Manhattan Brass Company, New York, N. Y. Wick-raiser	457,588	Aug. 11	1090	278	56	745
Hipwood, George, Boston, Mass. Can-opener	450,810	Apr. 21	1803	438	55	366
Hipwood, George, assignor of one-fourth to F. F. Bibber, Boston, Mass. Can-opener	458,703	Sept. 1	239	57	56	1111
Hipwood, George, assignor of two-thirds to F. F. Bibber and H. C. Barrett, Boston, Mass. Device for removing ice from overhead wires	462,707	Nov. 10	771	201	57	708
Hirbec, Victor, Paris, France. Electrical generator	464,156	Dec. 1	222	53	57	1178
Hirlmann, Charles J., Fort Lee, N. J. Galvanic battery	448,798	Mar. 24	2498	625	54	1619
Hirsch, Joseph, Centre, Ohio. Flood-gate	461,114	Oct. 13	868	224	57	174
Hirschauer, Herman, Jamestown, N. Y. Preparing sausage	448,341	Mar. 17	1774	54	54	1474
Hirsh, Dora, Lancaster, Pa. Car-coupling	454,045	June 16	1301	339	55	1412
Hirsh, Ralph, Syracuse, N. Y. Chemical refrigerator	458,726	Sept. 1	273	65	56	1118
Hirschheimer, Albert, and C. M. Mueller, La Crosse, Wis. Machine for bending wood	466,017	Dec. 29	3237	825	57	1790
Hirt, Louis J., Boston, Mass. Friction-clutch	458,578	Sept. 1	47	10	56	1075
Hirt, Louis J., Boston, Mass. Friction-clutch	458,579	Sept. 1	49	11	56	1075
Hirt, Louis J., Boston, Mass. Friction-clutch	458,831	Sept. 1	439	106	56	1149
Hiscock, Alfred O., Wyoma, assignor of one-half to P. B. Bird, Drifton, Fla. Well-sinking machine	462,134	Oct. 27	2572	639	57	515
Hise, Philip, Cincinnati, Ohio. Door-securer	445,273	Jan. 27	2084	537	54	430
Hiser, Daniel B., assignor to Thomas Manufacturing Company, Springfield, Ohio. Clutch	449,415	Mar. 31	3504	881	54	1817
Hiser, John J., Arcadia, La. Attachment for cotton-presses	443,995	Jan. 6	17	4	54	6
Hisley, Stephen T., assignor to Syracuse Specialty Manufacturing Company, Syracuse, N. Y. Clasp	451,482	May 5	56	14	55	500
Hitch, William S., Laurel, Del. Horseshoe	458,051	Aug. 18	1840	480	56	897
Hitchcock, Albert L., Pawtucket, R. I. Hoisting apparatus	456,332	July 21	1629	431	56	328
Hitchcock, Arthur B., and C. S. Gooding, Brookline, assignors to said Hitchcock, and W. W. Whitmarsh, Boston, Mass. Fender or life-guard for railway-cars	453,258	June 2	125	33, 34	55	1171
Hitchcock, Halbert K., et al. (See Krotz, Alvaro S., assignor.)						
Hitchcock, James E., and C. D. Hawley, Berlin, Wis. Puzzle	465,133	Dec. 15	1800	455	57	1496
Hitchen, Robert, J. T., Pearson, and T. Richmond, Burnley, county of Lancaster, England. Apparatus for the prevention of accidents to machinery	444,357	Jan. 6	583	{ 149 150 }	54	116
Hitchins, Alfred. (See Chadderton and Hitchins)						
Hitt, Adrian, Jersey City, N. J. Window	452,409	May 19	1569	389	55	888
Hitt, Adrian, Jersey City, N. J. Wrench	452,410	May 19	1570	389	55	888
Hitt, Adrian, Jersey City, N. J. Type-writing machine	455,748	July 14	741	195	56	151
Hitt, Adrian, Anderson, Ind. Brush	454,046	June 16	1302	339	55	1413
Hitt, Marcellus M., assignor to T. J. Matthews, Sheffield, Ala. Envelope-book	460,472	Sept. 29	3018	756	56	1675
Hix, Galeo F., et al. (See Miller, James B., assignor.)						
Hix, Oliver P., Rockland, Me. Seal-lock	447,489	Mar. 3	375	92	54	1189
Hix, Oliver P., Rockland, Me., assignor to Dunham Manufacturing Company, Boston, Mass. Car-door latch	447,182	Feb. 24	2767	685	54	1074
Hix, Oliver P., Rockland, Me., assignor to Dunham Manufacturing Company, Boston, Mass. Track for sliding doors	448,235	Mar. 17	1571	401	54	1435
Hix, Oliver P., Rockland, Me., assignor to Dunham Manufacturing Company, Boston, Mass. Sliding-door lock	448,651	Mar. 24	2264	568	54	1574
Hix, Oliver P., Rockland, Me., assignor to Dunham Manufacturing Company, Boston, Mass. Car-door lock	453,004	May 26	2524	639	55	1078
Hix, Oliver P., Rockland, Me., assignor to Dunham Manufacturing Company, Boston, Mass. Freight-car and door therefor	459,905	Sept. 22	2170	545	56	1506
Hix, Oliver P., Rockland, Me., assignor of one-half to Dunham Manufacturing Company, Boston, Mass. Flush door for freight-cars	457,994	Aug. 18	1754	{ 460 461 }	56	879
Hix, Oliver P., Rockland, Me., assignor to Dunham Manufacturing Company, of Maine. Latch for sliding doors	459,906	Sept. 22	2171	546	56	1507
Hoag, Edwin, Harrison, Mich. Saw-swage	445,179	Jan. 27	1938	500	54	402
Hoag, William H. (See Fea and Hoag.)						
Hoagland, John B., et al. (See Speaker, Charles E., assignor.)						
Hobart, John H., assignor to T. M. Graham, San Francisco, and N. H. Pine, Eureka, Cal. Gold-saving apparatus	462,952	Nov. 10	1171	303	57	786
Hobbs, Armenia W., administratrix. (See Gordon, Edward F., assignor.)						
Hobbs, Clarence W., Lynn, Mass., assignor to New England Autographic Register Company, of Maine. Paper-file	453,396	June 2	334	86	55	1210
Hobbs, David D. and J. T., assignors of one-half to A. N. Meade, Cleveland, Ohio. Rotary gas-engine	460,070	Sept. 22	2401	{ 601 602 }	56	1550
Hobbs, Edward, Salem, Mass., assignor to A. Seaver, trustee. Glass globe for illuminating purposes	453,187	June 2	15	5	55	1152
Hobbs, James J., Lagarto, Tex. Cotton-scraper	445,891	Feb. 3	618	152	54	633
Hobbs, John, Boston, Mass. Agitator for kettles or tanks	447,566	Mar. 3	484	119	54	1208
Hobbs, John E., North Berwick, and B. M. Wentworth, Berwick, Me.; said Wentworth assignor to said Hobbs. Attachable sleigh-runner	448,430	Mar. 17	1907	480	54	1500
Hobbs, John T. (See Hobbs, David D. and J. T.)						
Hobbs, John W., et al. (See Gaillac, Eugene G., assignor.)						
Hobler, Edward G., Chicago, Ill. Pole or wood saw	448,038	Mar. 10	1264	322	54	1364
Hobler, Peter, Batavia, and A. S. Peck, Geneva, Ill. Machine for cutting and shelling corn	465,134	Dec. 15	1801	456	57	1496
Hobill, William I., Elyria, Ohio. Stringed musical instrument	455,329	July 7	42	12	56	11
Hoblitzell, Oliver. (See Lee, William, assignor.)						
Hobson, Alice M., New Britain, Conn. Steam-cooker	466,137	Dec. 29	3432	879	57	1829
Hobson, Arthur E., assignor of one-half to I. J. Steane & Co., Hartford, Conn. Die for ornamenting strips of metal	444,835	Jan. 20	1347	349	54	280
Hobson, Charles H., Mount Carmel, Pa. Lamp-carrier for miners' hats	447,325	Mar. 3	69	19	54	1131
Hobson, Joseph W., Bayonne, N. J. Truck	462,829	Nov. 10	971	252	57	748
Hobson, Sherman M., Pueblo, Colo. Car-coupling	448,039	Mar. 10	1265	322	54	1364

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Hochhaus, Emily. (See Barden, William E., assignor.)						
Hochhausen, William, Brooklyn, N. Y. Electric switch and cut-out	447,826	Mar. 10	906	{ 225 226 226 227	54	1296
Hochhausen, William, Brooklyn, N. Y. Electric starting-switch	447,827	Mar. 10	908	{ 226 227 227	54	1297
Hochhausen, William, Brooklyn, N. Y. Rotary pump	462,708	Nov. 10	772	201	57	708
Hochhausen, William, Brooklyn, assignor to Excelsior Electric Company, New York, N. Y. Electric-arc lamp	453,583	June 2	630	{ 161 162	55	1266
Hochheimer, John, Hamilton, Ohio, and L. M. Smith, Romeo, Mich. Road-wagon gear	451,442	Apr. 28	2810	695	55	568
Hochreutener, Henry, New York, N. Y. Embroidering-machine	446,184	Feb. 10	1116	273	54	733
Hochreutener, Henry, New York, N. Y. Embroidering-machine	454,737	June 23	2366	608	55	1621
Hochreutener, Henry, New York, N. Y. Tambour-frame for embroidering-machines	462,486	Nov. 3	418	102	57	630
Hockett, James A., Stirling, Kans. Power-storing mechanism for electric locomotives	463,315	Nov. 17	1742	456	57	905
Hock, Jacob, Deggendorf, Germany. Coin holder and package	446,165	Feb. 10	1117	273	54	733
Hock, Jacob, Deggendorf, Germany. Coin-receptacle	451,325	Apr. 28	2629	149	55	534
Hockey, George H., Bristol, England. Self-feeding target-trap	446,519	Feb. 17	1672	408	54	857
Hocking, Thomas, et al. (See Carey, William, assignor.)						
Hodel, Joseph A., Cumberland, Md. Chimney-cap	459,221	Sept. 8	1061	258	56	1278
Hodgen, Samuel P., Pittsfield, Ill. Brace for gates	443,996	Jan. 6	18	4	54	7
Hodgen, Samuel P., Pittsfield, Ill. Horse-protector	449,532	Mar. 31	3677	924	54	1850
Hodges, Charles C., et al. (See McCoy, Elijah, assignor.)						
Hodges, Henry C., et al. (See McCoy, Elijah, assignor.)						
Hodges, Henry C., Detroit, Mich. Roof-truss	457,418	Aug. 11	824	{ 212 213	56	694
Hodgetts, James F., London, England. Iron-clad or other vessels	445,345	Jan. 27	2181	565	54	452
Hodgkiss, William. (See Keen, William M. B., assignor.)						
Hodgson, Charles, Jacksonville, Fla. Pump for raising water near railways	464,361	Dec. 1	560	137	57	1240
Hodgson, Edgar J., and J. W. Stearns, Jr., Denver, Colo. System of electric lighting	463,793	Nov. 24	2502	653	57	1059
Hodgson, Herbert E., Norfolk, Va. Buoy or fog-signal	460,136	Sept. 29	2517	627	56	1579
Hodgson, John G. (See Norton and Hodgson.)						
Hodgson, John G., assignor to E. Norton, Maywood, and O. W. Norton, Chicago, Ill. Can-soldering machine	446,454	Feb. 17	1574	387	54	837
Hodgson, John G., assignor to E. Norton, Maywood, and O. W. Norton, Chicago, Ill. Machine for cutting and forming sheet-solder rings	450,313	Apr. 14	1004	{ 248 249	55	199
Hodgson, Samuel. (See Hinchliffe, James H., assignor.)						
Hodsdon, Charles F., New York, N. Y. Portable house	456,307	July 21	1590	420	56	321
Hodson, Benjamin M., assignor of one-half to H. F. Heuer, Chicago, Ill. Vestibule-car	452,787	May 26	2173	544	55	1011
Hodson, James L., Denova, Iowa. Wire-reel	459,750	Sept. 22	1917	483	56	1458
Hoduit, John, assignor of one-half to C. Rueter, St. Louis, Mo. Dynamo-electric generator or motor	459,508	Sept. 15	1518	{ 379 380	56	1376
Hoe, Robert, et al. (See Crowell, Luther C., assignor.)						
Hoeborn, Heinrich, Hemer, Germany. Paper-making machine	445,003	Jan. 20	1657	424	54	240
Hoechstatten, Joseph H. von, Vienna, Austria-Hungary. Safety-brake apparatus	447,710	Mar. 3	690	171	54	1249
Hoefer, Frederick W., Freeport, Ill. Spring-hinge	457,720	Aug. 11	1288	335	56	783
Hoefer, Frederick W., Freeport, Ill. Hinge	457,721	Aug. 11	1289	335	56	783
Hoeffler, Albert, et al. (See Wilcox, Amos A., assignor.)						
Hoeffler, Adolph, and F. L. G. Chapman, Stevens Point, Wis. Brace for vehicle-bodies	458,395	Aug. 25	2411	587	56	1011
Hoeft, Max, Berlin, Germany. Note-case	459,290	Sept. 8	1165	284	56	1300
Hoehe, Albert. (See Schneider, Robert, assignor.)						
Hoeller, Otto A., Cincinnati, Ohio. Surgical-needle holder	453,698	June 9	824	209	55	1312
Hoer, Ernest A., Richmond, Va. Cigarette-box	447,183	Feb. 24	2769	685	54	1075
Hoer, William, Cleveland, Ohio. Self-lubricating trolley	460,232	Sept. 29	2652	661	56	1606
Hoerle, Christian G., assignor to Holmes, Booth & Haydens, Waterbury, Conn. Hanger or harp for suspending lamps	445,698	Feb. 3	304	80	54	272
Hoerle, William M., assignor to Pittsburgh Brass Company, Allegheny, Pa. Wick-raising device for central-draft lamps	451,483	May 5	57	14	55	590
Hofbauer, John. (See Renner and Hofbauer.)						
Hoffman, Charles P., Utica, N. Y., and W. B. Van Houten, assignors to C. Van Houten, Belleville, N. J. Electro-therapeutic bath	459,852	Sept. 22	2075	521	56	1490
Hoffman, Edward J., assignor to Electric Carbon Manufacturing Company, Sioux City, Iowa. Boiler-cleaning compound	450,232	Apr. 14	881	219	55	176
Hoffman, Horace J., Chicago, Ill. Case and drawer for bill-files	453,397	June 2	335	87	55	1210
Hoffman, Horace J., Chicago, Ill. Case and drawer for files	455,251	June 30	3273	830	55	1800
Hoffman, Horace J., Milwaukee, Wis., assignor, by mesne assignments, to Fenton Metallic Manufacturing Company, of New York. Storage-case for books, &c.	450,124	Apr. 7	701	177	55	136
Hoffman, Horace J., Chicago, Ill., assignor to Hoffman-Keefe Office File Company, Milwaukee, Wis. Filing-case for drawers	459,139	Sept. 8	935	224	56	1255
Hoffman, John W., Pullman, assignor to Pullman's Palace Car Company, Chicago, Ill. Electric-wire connector	445,751	Feb. 3	388	99	54	589
Hoffman, John W., assignor to Pullman's Palace Car Company, Chicago, Ill. Electric switch	445,752	Feb. 3	389	99	54	589
Hoffman, Joseph, Hoboken, N. J., assignor of one-half to C. A. Lieb, New York, N. Y. Molding-machine for molding plastic material	458,754	Sept. 1	312	76	56	1125
Hoffman-Keefe Office File Company. (See Hoffman, Horace J., assignor.)						
Hoffman, Ralph, et al. (See Morden, William S., assignor.)						
Hoffman, Robert. (See Heinz and Hoffman.)						
Hoffman, Romulus J., et al. (See Jones, Charles E., Sr., assignor.)						
Hoffman, William D., Brewster, N. Y. Ore-separator	463,305	Nov. 17	1726	451	57	902
Hoffmann, Ernest G., New Southgate, England. Wire-twisting tool	450,671	Apr. 21	1597	384	55	328
Hoffmann, Ernest G., New Southgate, England. Furniture-caster	461,181	Oct. 13	972	250	57	193
Hoffmann, Ernest G., London, England. Rubber tire for wheels	463,153	Nov. 17	1485	385	57	856
Hoffmann, Frank H. (See Hoffmann, Hermann H. and F. H.)						
Hoffmann, Hermann H. and F. H., Chicago, Ill. Blank book	464,325	Dec. 1	506	121	57	1230
Hoffmann, Louis M., Chicago, Ill. Machine for cutting and cleaning entrails	461,804	Oct. 20	2059	508	57	407
Hoffmann, Meinhard, assignor to L. Cassella & Co., Frankfort-on-the-Main, Germany. Blue dye	464,135	Dec. 1	189	.....	57	1173
Hoffmann, Meinhard, Mainkur, assignor to L. Cassella & Co., Frankfort-on-the-Main, Germany. Violet dye	464,566	Dec. 8	859	.....	57	1308
Hoffmann, William R., St. Joseph, assignor to C. A. Gaiser and L. C. Irvine, Kansas City, Mo. Pen-holder	452,013	May 12	883	226	55	754
Hofman, John. (See Rogers and Hofman.)						
Hofmann, Johann, Cincinnati, Ohio, assignor to C. Dietz, West Covington, Ky., J. F. Dietz and C. Ignatius, Cincinnati, Ohio. Washing-machine	455,401	July 7	163	41, 42	56	35

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Hogan Engineering Company. (See Hogan, John J., assignor.)						
Hogan Engineering Company. (See Kittredge and Hogan, assignors.)						
Hogan, John J. (See Kittredge and Hogan.)						
Hogan, John J., New York, N. Y., assignor to Hogan Engineering Company, of New York.						
Flange-and-collar coupling.....	448,717	Mar. 24	2375	594	54	1596
Hogan, John J., Brooklyn, assignor to Hogan Engineering Company, New York, N. Y.						
Wrench.....	450,154	Apr. 14	748	190	55	152
Hogan, John J., assignor to Hogan Engineering Company, New York, N. Y. Collared pipe-coupling.....	459,907	Sept. 22	2173	546	56	1507
Hogan, John J., Brooklyn, assignor to Hogan Engineering Company, New York, N. Y.						
Partitioned pipe.....	459,908	Sept. 22	2174	546	56	1507
Hogan, John J., Brooklyn, assignor to Hogan Engineering Company, New York, N. Y.						
Shaft-coupling.....	459,909	Sept. 22	2175	547	56	1507
Hogan, John J., Brooklyn, assignor to Hogan Engineering Company, New York, N. Y.						
Coupling for uniting pipes to fittings.....	459,910	Sept. 22	2175	547	56	1507
Hogan, John J., Jersey City, N. J., assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener.....	460,872	Oct. 6	515	131	57	101
Hogan, Philip J., Negaunee, Mich. Toy or puzzle.....	460,014	Sept. 22	2315	580	56	1534
Hogan, Thomas J., assignor to Westinghouse Air Brake Company, Pittsburg, Pa. Pipe-coupling.....	444,179	Jan. 6	330	80	54	67
Hogan, Thomas J., assignor to Westinghouse Air Brake Company, Pittsburg, Pa. Air-brake.....	447,731	Mar. 3	725	182	54	1255
Hogan, William, Corinth, Ga. Tire-tightener.....	444,492	Jan. 13	810	210	54	169
Hogarty, Michael, Salisbury, Mass. Rule.....	465,664	Dec. 22	2660	678	57	1669
Hogendobler, Horace, Winchester, Ind. Cigar-moistening device.....	461,872	Oct. 27	2167	533	57	437
Hogg, Arthur, Buffalo, N. Y. Preparing gem-settings.....	450,618	Apr. 21	1478	362	55	298
Hogg, George, New York, N. Y. Car-ventilator.....	447,071	Feb. 24	2566	637	54	1037
Hoggson & Pettis Manufacturing Company. (See Stark, William F., assignor.)						
Hoggson, Samuel H., assignor of one-half to W. H. Stevenson, St. Louis, Mo. Type-belt.....	453,699	June 9	826	209	55	1312
Hoglen, George W., Dayton, Ohio. Fire-extinguisher.....	455,209	June 30	3216	817	55	1790
Hohenshell, Walter B., and E. H. Overholt, Streator, Ill. Type-writing machine.....	444,636	Jan. 13	1017	265	54	210
Hohoff, Frederick H., Washington, D. C. Locking attachment for bicycles.....	458,832	Sept. 1	442	106	56	1149
Hoke, Harry E. (See Hoke, Henry E. and H. E.)						
Hoke, Henry E. and H. E., Chambersburg, Pa. Car-door fastener.....	463,511	Nov. 17	2040	535	57	964
Hoke, Quinton J., and J. E. Warren, assignors to themselves and A. Y. Cartwright, Yorkville, S. C. Switch stand and lock.....	460,535	Sept. 29	3135	783	56	1700
Hoke, William A. (See Whittaker and Hoke.)						
Hollbrook, Byron, Milwaukee, Wis. Bark-cutter.....	453,398	June 2	337	87	55	1211
Hollbrook, Charles W., 2d, Providence, R. I. Rawhide mallet.....	463,113	Nov. 10	1421	367	57	836
Hollbrook, George K., et al. (See Fuller, Charles W. B., assignor.)						
Hollbrook, James H., Boston, Mass. Twine-reel.....	457,082	Aug. 4	239	61	56	579
Hollbrook, William H., Junction City, Ill. Broom-head.....	459,468	Sept. 15	1455	366	56	1364
Hollbrook, Zephaniah S., Chicago, Ill., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Cash-carrier.....	455,330	July 7	43	13	56	11
Holcomb, Thomas D., Brooklyn, N. Y. Leaf-turner.....	445,405	Jan. 27	2267	588	54	468
Holcombe, Alfred G., Long Island City, assignor of one-half to C. L. Browne, New York, N. Y. Dynamo-electric machine.....	444,067	Jan. 6	139	35	54	30
Holden, Charles L., Indianapolis, Ind. Gas-burner.....	461,435	Oct. 20	1403	354	57	286
Holden, Daniel L., New York, N. Y. Apparatus for producing anhydrous ammonia.....	453,005	May 26	2525	639	55	1079
Holden, Daniel L., New York, N. Y. Ammonia-still.....	460,137	Sept. 29	2519	627	56	1580
Holden, Daniel L., New York, assignor to New Process Ice and Refrigerating Machine Company, Brooklyn, N. Y. Ice and refrigerating machine.....	444,532	Jan. 13	869	226	54	181
Holden, Daniel L., New York, assignor to New Process Ice and Refrigerating Machine Company, Brooklyn, N. Y. Beer-cooling apparatus.....	444,533	Jan. 13	872	226	54	182
Holden, Elbridge G., Fulton, Tex. Apparatus for scouring water-ways.....	449,479	Mar. 31	3608	908	54	1836
Holden, James, Snaresbrook, assignor to I. A. Timmis, J. C. Taite, and T. W. Carlton, London, England. Injector-burner.....	465,268	Dec. 15	2005	513	57	1535
Holden, Oliver C., Higginsport, Ohio. Grate attachment.....	446,681	Feb. 17	1917	477	54	903
Holds, John C., assignor of two-thirds to D. D. Buck and J. G. Hoyt, Battle Creek, Mich. Folding spring bed-bottom.....	466,305	Dec. 29	3687	942	57	1876
Holleywell, William H., assignor to the estate of T. Back, New York, N. Y. Ruching-machine.....	465,177	Dec. 15	1865	473	57	1508
Holgate, George H., Atlanta, Ga. Refrigerating-machine.....	451,393	Apr. 28	2719	675	55	551
Holladay, John M., Holladay, Va. Ax-head.....	447,685	Mar. 3	656	163	54	1242
Holladay, John M., Holladay, Va. Bag-holder.....	447,686	Mar. 3	657	163	54	1242
Holland, Charles A. (See Slinn and Holland.)						
Holland, Charles L., Revere, Mass. Razor-strop.....	447,184	Feb. 24	2769	685	54	1075
Holland, Henry P., assignor of one-half to J. A. Fischer, San Francisco, Cal. Wave-power motor.....	454,821	June 23	2508	645	55	1646
Holland, Henry P., assignor to J. A. Fischer, San Francisco, Cal. Machinery for propelling vessels.....	457,437	Aug. 11	848	219	56	699
Holland, Henry P., assignor of one-half to J. A. Fischer, San Francisco, Cal. Wave-power motor.....	460,812	Oct. 6	432	108	57	86
Holland, Joseph, Watertown, N. Y. Mechanism for carrying trolley-wheels underground.	451,691	May 5	380	93	55	651
Holland Radiator Manufacturing Company. (See Holland, Timothy, assignor.)						
Holland, Timothy, assignor to Holland Radiator Manufacturing Company, Louisville, Ky. Radiator.....	464,797	Dec. 8	1226	305	57	1378
Hollar, William H., Philadelphia, Pa. Safe or vault.....	459,226	Sept. 8	1068	259	56	1279
Hollenman, William D. (See Wallace and Hollenman.)						
Hollenbeck, Frank A., Batavia, N. Y. Safety device for breech-loading guns.....	446,166	Feb. 10	1088	267	54	728
Hollenbeck, Frank A., assignor to Baker Gun and Forging Company, Batavia, N. Y. Lock for fire-arms.....	461,182	Oct. 13	973	250	57	193
Hollender, August H., Blue Earth City, Minn. Dough-raiser.....	464,872	Dec. 8	1330	333	57	1398
Holley, Clarence E., Fort Fairfield, Me. Vehicle running-gear.....	452,376	May 19	1509	374	55	877
Holliday, Frances E. (See Bolt, Reuben J., assignor.)						
Hollin, John W., and T. B. Smith, New Richmond, Ind. Railway-tie.....	444,439	Jan. 13	717	188	54	150
Hollinger, Isaac K., Weaver's Station, Ohio. Wire fence.....	464,435	Dec. 1	657	161	57	1260
Hollinger, Isaac K., Weaver's Station, Ohio. Fence-post.....	464,873	Dec. 8	1331	334	57	1399
Hollingsworth, Charles M., Cleveland, Ohio. Oil-feeding device for vapor-stoves.....	448,236	Mar. 17	1572	401	54	1436
Hollingsworth, Charles M., Cleveland, Ohio. Vapor-stove.....	448,652	Mar. 24	2265	568	54	1574

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Hollingsworth, Charles M., Rockford, Ill. Starter for vapor-stoves.....	451,050	Apr. 28	2184	539	55	447
Hollingsworth, Charles M., Cleveland, Ohio. Valve for vapor-stoves.....	457,779	Aug. 18	1391	359	56	812
Hollingsworth, James. (See Cahill, John W., assignor.)						
Hollingsworth, Joseph, and O. Darwin, Waco, Tex. Apparatus for delinting cotton-seed.	458,833	Sept. 1	443	106	56	1149
Hollingsworth, William. (See Hooper and Hollingsworth.)						
Hollingsworth, William. (See Starr and Hollingsworth.)						
Hollingsworth, Leonard C., Providence, R. I. Guide for tentering-machines.....	459,203	Sept. 8	1033	252	56	1273
Hollingsworth, Louis, Providence, R. I. Automatic stop-motion device for tentering or drying machines.....	450,511	Apr. 14	1313	322 323 324	55	259
Hollingsworth, Louis, assignor to B. F. Tillinghast, C. R. Earle, and A. W. C. Arnold, Providence, R. I. Machine for guiding the edges of web fabrics.....	449,623	Mar. 31	3844	962 963	54	1800
Hollis, Lewis. (See Van Horn, Joseph E., assignor.)						
Hollis, William. (See Waite, James F., assignor.)						
Hollister, Carrie V., et al. (See Cowles, Lyman L., assignor.)						
Hollister, Charles H., Cresco, Iowa. Vessel for heating milk or other food for calves.....	463,387	Nov. 17	1864	487	57	928
Hollister, Edgar A., Welch Glade, W. Va. Plow.....	445,471	Jan. 27	2355	612	54	485
Hollister, Elisha S., assignor to Bristol Brass and Clock Company, Bristol, Conn. Wick-raising device for lamps.....	457,083	Aug. 4	240	62	56	579
Holloran, John. (See Baird and Holloran.)						
Holloran, John, et al. (See Baird, James B., assignor.)						
Holloway, Charles T., Baltimore, Md. Vehicle running gear.....	452,569	May 19	1822	458	55	933
Holloway, Charles T., Baltimore, Md. Fire-department wagon.....	460,777	Oct. 6	387	94	57	76
Holloway, Charles T., Baltimore, Md. Combined fire-engine and hose-wagon.....	464,281	Dec. 1	440	105	57	1218
Holloway, John M., Santa Barbara, Cal. Water-closet.....	445,892	Feb. 3	619	152	54	633
Holloweg, Carl, Barmen, Germany. Corkscrew.....	447,185	Feb. 24	2770	686	54	1075
Hollyday, Virginia M., Baltimore, Md. Lock.....	453,082	May 26	2654	669	55	1103
Holman, Jacob, Richfield, Ill. Hay-stacker.....	455,252	June 30	3277	830	55	1801
Holman, Daniel F., Chicago, Ill. Apparatus for laying railway-tracks.....	444,051	Jan. 6	104	27	54	24
Holman, March. (See Tobin and Holman.)						
Holman, William L. (See Stetson, Hammond, Holman, and Harris.)						
Holman, William L., et al. (See Green, John, assignor.)						
Holmes, Anderson M. (See Bailey, Marion M., assignor.)						
Holmes, Arnold B., Boston, and G. F. Gale, Winthrop, Mass. Fuse-box for electric lamps..	460,968	Oct. 13	667	172	57	137
Holmes, Booth & Haydens. (See Hoerle, Christian G., assignor.)						
Holmes, Daniel M., Arlington, N. J. Ash-cart.....	466,038	Dec. 29	3280	836 837	57	1799
Holmes, Daniel M., Arlington, N. J., assignor to J. R. Van Dewere, New York, N. Y. Ash-cart.....	457,320	Aug. 4	633	167	56	650
Holmes, Edwin S., Jr., Washington, D. C. Printing-surface.....	464,968	Dec. 15	1486	.....	57	1439
Holmes Fibre-Graphite Manufacturing Company. (See Holmes, Philip H., assignor.)						
Holmes, Helen V., Chicago, Ill. Device for stretching and drying curtains.....	451,607	May 5	244	58	55	626
Holmes, Herbert E. (See Grosvenor and Holmes.)						
Holmes, John. (See O'Brien, Geraldine, assignor.)						
Holmes, John, Boston, Mass. Knitted drawers.....	451,051	Apr. 28	2187	540	55	448
Holmes, John A., Milwaukee, Wis. Velocipede.....	447,542	Mar. 3	454	112	54	1203
Holmes, John A., and G. Teske, assignors of three-fifths to R. A. Johnston, Milwaukee, Wis. Baking-oven.....	463,193	Nov. 17	1550	404	57	868
Holmes, John B., New York, N. Y. Twine-reel.....	447,153	Feb. 24	2724	675	54	1065
Holmes, John F., and J. P. Tompkins, Waterford, N. Y. Friction-clutch.....	448,921	Mar. 24	2684	675	54	1655
Holmes, John H., Newcastle-on-Tyne, England. Regulator for dynamo-electric machines..	445,448	Jan. 27	2327	604 605	54	480
Holmes, Joseph F. R., Hillsborough, Ohio. Platform adjustment.....	460,824	Oct. 6	451	114	57	90
Holmes Manufacturing Company. (See Rockwood, Howard S., assignor.)						
Holmes, Monroe P., Toledo, Ohio. Adjustable bracket for scaffolding.....	446,682	Feb. 17	1917	477	54	904
Holmes, Moses M., Gower, Mo. Roundabout.....	451,932	May 12	757	191	55	729
Holmes, Nathan L., Racine, Wis. Bolster-spring.....	448,342	Mar. 17	1774	449	54	1474
Holmes, Philip H., Gardiner, Me. Composition for journal-bearings.....	454,354	June 16	1751	.....	55	1499
Holmes, Philip H., Gardiner, Me., assignor to Holmes Fibre-Graphite Manufacturing Company, Chicago, Ill. Electrical conductor.....	463,512	Nov. 17	2041	535	57	964
Holmes, Thomas, Brooklyn, N. Y. Embalming-mixture.....	450,017	Apr. 7	547	.....	55	106
Holmes, William W., Bridgeport, Conn., assignor to Dunham Manufacturing Company, Chicago, Ill. Car-door.....	452,570	May 19	1824	458	55	934
Holmgren, Emil F., assignor of one-half to H. De Haven, Brooklyn, N. Y. Rotary engine.	454,738	June 23	2368	608	55	1622
Holmgren, Alfred. (See Draper and Holmgren.)						
Holmstrom, Anders, New York, N. Y. Transposing key-board instrument.....	446,289	Feb. 10	1299	318	54	770
Holsclaw, Wilford H., assignor to B. F. Avery & Sons, Louisville, Ky. Plow.....	459,204	Sept. 8	1034	252	56	1273
Holsclaw, Wilford H., assignor to B. F. Avery & Sons, Louisville, Ky. Plow.....	460,339	Sept. 29	2829	703	56	1640
Holsinger, Samuel L. (See Bacon and Holsinger.)						
Holson, Albert B., assignor of thirty-seven fiftieths to R. J. Zorge and S. W. Gehr, Chicago, Ill. Electric device for harness.....	452,571	May 19	1825	458 459	55	931
Holt, Albert T., assignor to B. F. Goodrich Company, Akron, Ohio. Siphon-syringe.....	455,402	July 7	165	42	56	35
Holt, Benjamin, Camden, N. J. Knitting-machine.....	448,718	Mar. 24	2376	594 595 596	54	1506
Holt, Benjamin, Camden, N. J. Knitting-machine.....	448,719	Mar. 24	2379	596	54	1506
Holt, Crawford D., Murray, Ky. Tongs for handling comb-frames.....	453,905	June 9	1108	290	55	1366
Holt, Gardner L., Springfield, Mass. Marking twist-drills.....	460,639	Oct. 6	171	33	57	36
Holt, Henry A., Wilton, N. H. Wood-sawing machine.....	451,233	Apr. 28	2486	613	55	506
Holt, Noah W., Manchester, assignor to R. H. Emerson and Z. C. Eldred, receivers, Jackson, Mich. Belt-driver.....	455,283	June 30	3348	845	55	1815
Holt, Willard E. (See Herrick, Warren E., assignor.)						
Holte, Nels T. (See Applequist, Charles J., assignor.)						
Holter, Christian C., Roland, Iowa. Farm-gate.....	453,188	June 2	16	5	55	1152
Holtmann, Hermann H. (See Peters, Henry W., assignor.)						
Holtman, Charles H., Poughkeepsie, N. Y. Valve for gas-furnaces.....	457,118	Aug. 4	283	4	56	587
Holtz, Henry T., Washington, D. C., assignor of one-half to W. M. Lerch, Baltimore, Md. Phonograph.....	463,989	Nov. 24	2822	732	57	1119
Holtz, Henry T., Washington, D. C., assignor of one-half to W. M. Lerch, Baltimore, Md. Starting and stopping device for phonographs.....	463,990	Nov. 24	2824	732	57	1119
Holtzer-Cabot Electric Company. (See Holtzer and Cabot, assignors.)						
Holtzer, Charles W., and G. E. Cabot, Brookline, assignors to Holtzer-Cabot Electric Company, Boston, Mass. Electric regulator.....	464,136	Dec. 1	190	46, 47	57	1173
Holway, Nymphus B., assignor to T. Mott and G. C. Prentiss, La Crosse, Wis. Coating shingles.....	448,343	Mar. 17	1777	449	54	1475

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Holyland, Charles, Allegheny, Pa. Envelope and stamp moistener	464,502	Dec. 8	761	186	57	1289
Holyoak, John. (See Young and Holyoak.)						
Holyoke Envelope Company. (See Ball, James, assignor.)						
Holyoke Machine Company <i>et al.</i> (See Keene, Samuel D., assignor.)						
Homan, Eugene, New York, N. Y. Bevel-grinding machine for plate-glass manufacture ..	451,303	Apr. 28	2594	640	55	527
Home, John H. (See Dillon, Peter, assignor.)						
Homer, Chauncey S. (See Pickett, William H., assignor.)						
Homer, William K., Lansingburg, N. Y. Pipe-coupling nipple	463,755	Nov. 24	2454	642	57	1049
Hommel, George. (See Bausch, Hommel, and Wollensak.)						
Homolka, Benno, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Induline dye	458,281	Aug. 25	2223	.....	56	976
Honeyman, Henry W., assignor to Granger Foundry and Machine Company, Providence, R. I. Cloth-pressing machine	454,798	June 23	2460	632	55	1639
Honiss, Fred L., <i>et al.</i> (See Thiel, Max, assignor.)						
Honold, Friedrich E. L., Binsfeldhammer, near Stolberg, Germany. Apparatus for desilverizing lead	446,455	Feb. 17	1576	387	54	838
Hood, Alexander J., Muscoda, Wis. Pencil-sharpener	452,270	May 12	1332	332	55	834
Hood, Cyrus S., Corning, N. Y. Register	465,561	Dec. 22	2496	637	57	1638
Hood, Cyrus S., Corning, N. Y. Damper	465,562	Dec. 22	2501	638	57	1639
Hood, Cyrus S. and E., Corning, N. Y. Air-heating system	465,562	Dec. 22	2498	638	57	1639
Hood, Eddy. (See Hood, Cyrus S. and E.)						
Hood, Eunice, Chicago, Ill. Dress-chart	455,749	July 14	742	195	56	152
Hood, Frederick, <i>et al.</i> (See Bishman, William, assignor.)						
Hood, John, <i>et al.</i> (See Brüstle, Andrew, assignor.)						
Hook, William L. (See McComb, Hook, McComb, and Gillespie.)						
Hooker, Beau, San Diego, Cal. Compound for preserving ships' bottoms, &c	459,751	Sept. 22	1918	.....	56	1459
Hooker, C. A., <i>et al.</i> (See Carr, Warren H., assignor.)						
Hooker, Charles A., and W. D. Hatch, Bath, Me. Lifting-jack	458,847	Sept. 1	466	112	56	1155
Hooker, John H., Winslow, England. Milk wine and making the same	455,210	June 30	3217	.....	55	1790
Hooker, Thomas, Syracuse, N. Y. Process of and dies for making twist-drills	447,450	Mar. 3	236	75	54	1173
Hooly, Thomas, Davenport, Iowa. Educational appliance	463,230	Nov. 17	1602	417	57	878
Hooper, Francis X., and W. Hollingsworth, Baltimore, Md.; said Hollingsworth assignor to said Hooper. Bearing and supporting device	462,436	Nov. 3	352	86	57	617
Hooper, Henry O., San Francisco, Cal. Reverse-movement attachment for type-writing machines	445,406	Jan. 27	2269	589	54	468
Hooper, Mary P. C., New York, N. Y. Mosquito-trap	455,403	July 7	166	42, 43	56	35
Hooper, Thomas, and S. G. Moore, Birmingham, England. Glove	456,035	July 14	1174	308	56	232
Hooper, Thomas D., Philadelphia, Pa. Ink-fountain protector for printing-presses	462,352	Nov. 3	216	52	57	592
Hooper, William J., G. T. Pillings, and G. W. Price, Baltimore, Md.; said Pillings and Price assignors to said Hooper. Machine for making nets	454,355	June 16	1753	{ 455 456 457 }	55	1499
Hoopes, Maurice, West Chester, Pa. Electric switch	462,353	Nov. 3	218	53	57	592
Hoople, William G. (See Christie, John H., assignor.)						
Hoops, Herman W., New York, N. Y. Candy whistle	452,706	May 19	2035	510	55	976
Hoos, William. (See Erny, Subers, and Hoos.)						
Hoover, Absalom E. (See Chatfield, Norman A., assignor.)						
Hoover, De Witt C., Buffalo, N. Y. Photographic-printing machine	462,382	Nov. 3	264	65	57	601
Hoover, Louis H. (See Howett, Henry C., assignor.)						
Hoover, Nathan L., <i>et al.</i> (See Powers, Charles M., assignor.)						
Hoover, Reuben, Boone, Iowa. Slat-and-wire-fencing machine	446,255	Feb. 10	1249	305	54	759
Hopcraft Furnace Company. (See Hopcraft, Lewis, assignor.)						
Hopcraft, Lewis, assignor to Hopcraft Furnace Company, Limited, London, England. Furnace fire-grate	450,018	Apr. 7	548	136	55	106
Hope, John. (See Wrigley and Hope.)						
Hope, John, Providence, R. I. Pantograph engraving-machine	462,874	Nov. 10	1042	270	57	761
Hope, John, Jr., Providence, R. I. Steel and lithograph plate ruling machine	448,922	Mar. 24	2635	676	54	1656
Hope, John, Jr., Providence, R. I. Pantograph-machine for tracing designs upon printing-cylinders	450,155	Apr. 14	750	190	55	152
Hope Webbing Company. (See Hoyt, Charles C., assignor.)						
Hopedale Elastic Fabric Company. (See Lapworth, William, assignor.)						
Hopedale Machine Screw Company. (See Dixon, Walter L., assignor.)						
Hopkins, Andrew J., Beaver Falls, Pa. Pump-valve	449,533	Mar. 31	3678	924	54	1850
Hopkins, Andrew J., Beaver Falls, Pa. Double-acting suction and force pump	450,461	Apr. 14	1237	302	55	242
Hopkins, Cabel B., assignor to Hopkins & Robinson Manufacturing Company, Louisville, Ky. Cash indicator and register	457,199	Aug. 4	412	{ 108 109 }	56	611
Hopkins, Cabel B., assignor to Hopkins & Robinson Manufacturing Company, Louisville, Ky. Cash register and indicator	465,269	Dec. 15	2006	{ 513 514 }	57	1535
Hopkins & Dickinson Manufacturing Company. (See Schade, John, assignor.)						
Hopkins, Floyd, <i>et al.</i> (See Haskins, Morris R., assignor.)						
Hopkins, Harvey L., assignor to Harvey L. Hopkins Company, Chicago, Ill. Automatic bearing-box adjuster	463,627	Nov. 24	2257	595	57	1013
Hopkins, Henry N., Taunton, and E. H. Bryant, New Bedford, Mass. Safety-switch	447,186	Feb. 24	2771	686	54	1075
Hopkins, James K. (See Smith and Hopkins.)						
Hopkins, James M., and H. Tesseman, Dayton, Ohio. Seal-lock	455,686	July 7	625	165	56	121
Hopkins, Lafayette B., Council Grove, Kans. Hitching-post	458,052	Aug. 18	1842	480	56	897
Hopkins & Robinson Manufacturing Company. (See Hopkins, Cabel B., assignor.)						
Hopkins & Sons, J. H. (See Willis, Charles, assignor.)						
Hopkins, Sylvanus C., Boston, and A. Peterson, Jamaica Plain, Mass.; said Peterson assignor to said Hopkins. Folding bed	463,124	Nov. 10	1443	373	57	840
Hopkinson, John, Holmwood, England, assignor, by mesne assignments, to Westinghouse Electric and Manufacturing Company, Pittsburg, Pa. Electric indicator	444,532	Jan. 13	904	235	51	188
Hopkinson, John, Holmwood, England, assignor, by mesne assignments, to Westinghouse Electric and Manufacturing Company, Pittsburg, Pa. Controlling currents upon electric circuits	444,533	Jan. 13	905	235	54	188
Hopper, Frederick W., Bastrop, Tex. Dish-washer	460,778	Oct. 6	388	95	57	76
Hopper, George B., assignor to Fairbank Canning Company, Chicago, Ill. Can	458,053	Aug. 18	1842	481	56	897
Hopper, George H. (See Mason, Shaw, and Hopper.)						
Hopper, Henry S., Detroit, Mich. Air-brake mechanism	458,626	Sept. 1	121	27	56	1089
Hopper, John L., Sarcoxie, Mo. Roaster, smelter, and separator	462,767	Nov. 10	863	{ 226 227 }	57	726
Hopper, John R., Rochester, N. Y. Elevator	454,591	June 23	2136	{ 550 551 }	55	1578
Hopper, Joseph N., Pawnee City, Nebr. Roofing material	446,775	Feb. 17	2055	512	54	932
Hoppes, John J., Springfield, Ohio. Feed-water purifier	445,407	Jan. 27	2271	589	54	469

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Hoppes, John J., Springfield, Ohio. Feed-water purifier.....	457,157	Aug. 4	344	88	56	599
Horack, Charles L., Brooklyn, N. Y. Method of and apparatus for operating aqua-ammonia engines.....	453,444	June 2	423	110	55	1227
Horah, James H., Salisbury, N. C. Bicycle.....	451,972	May 12	815	{ 207 208 }	{ 55 }	740
Horan, James T., <i>et al.</i> (See Daly, James W., assignor.)						
Hörenz, Friedrich O., Radebeul-Dresden, Germany. Automatic damper.....	445,113	Jan. 20	1823	{ 471 472 }	{ 54 }	371
Horlyck, Hans, Bastrup, Denmark. Milking apparatus.....	459,582	Sept. 15	1640	{ 410 411 }	{ 56 }	1399
Hormel, August, New York, N. Y. Electric annunciator.....	444,245	Jan. 6	429	108	54	84
Horn, George E. (See Hay, Walter, assignor.)						
Horn, George L. (See Cronin and Adams, assignors.)						
Horn, Gustav, Rockdale, Iowa. Mail-bag.....	464,772	Dec. 8	1189	295	57	1370
Horn, Lewis W., and J. McArthur, Rochester, N. Y. Fruit-crate.....	447,687	Mar. 3	659	163	54	1243
Horn, Schooler C., Bladensburg, Ohio. Ironing-board.....	446,776	Feb. 17	2056	512	54	932
Hornberger, John F. (See Auble and Hornberger.)						
Hornberger, John F., Lawrenceburg, Ind., assignor of one-half to E. & J. Schwerkert, Cincinnati, Ohio. Ear-piercer.....	460,138	Sept. 29	2520	627	56	1580
Hornberger, William, Elkhart, Ind. Commutator.....	448,040	Mar. 10	1266	323	54	1365
Hornberger, William W., and L. J. Langeay, Columbia, Mo. Tidy-holder.....	463,681	Nov. 24	2340	613	57	1028
Horne, Chester, assignor of two-thirds to J. J. Davies and S. E. Horne, Toronto, Canada. Printer's galley.....	465,931	Dec. 29	3070	787	57	1760
Horne, Samuel E., <i>et al.</i> (See Horne, Chester, assignor.)						
Hörner, Gustav, Lüben, Germany. Surface condenser.....	448,521	Mar. 17	2041	511	54	1525
Horning, Jacob E., and E. D. Clapp, Washington, D. C. Lock-up mechanism for printers' forms.....	454,047	June 16	1303	{ 339 340 }	{ 55 }	1413
Hornsby, James, J. Innocent, and J. H. Smith, assignors to R. Hornsby & Sons, Limited, Grantham, England. Harvester.....	460,139	Sept. 29	2521	627	56	1580
Hornsby, James, J. Innocent, I. Trolley, and J. H. Smith, assignors to R. Hornsby & Sons, Limited, Grantham, England. Knotting-machine.....	465,610	Dec. 22	2575	655	57	1653
Hornsby & Sons, Richard. (See Hornsby, Innocent, and Smith, assignors.)						
Hornsby & Sons, Richard. (See Hornsby, Innocent, Trolley, and Smith, assignors.)						
Horrie, David, Antigo, Wis. Railway-frog.....	452,672	May 19	1981	497	55	965
Horrigan, John C. (See Turner, George W., assignor.)						
Horrobin, Frank W., <i>et al.</i> (See Vincent, George P., assignor.)						
Horseman, Stephen, Estacado, Tex. Swing attachment for cuspidors.....	456,620	July 28	2111	558	56	428
Horsfall, Amos. (See Pickles and Horsfall.)						
Horstmann, Henry C., Naperville, Ill. Railway-signal.....	459,633	Sept. 15	1736	436	56	1416
Horton, Angell & Co. (See Williams, Frank E., assignor.)						
Horton, Daniel E., Buffalo, N. Y. Excavator.....	451,484	May 5	59	14	55	590
Horton, David W., Petersburg, Ind. Propeller.....	454,272	June 16	1633	429	55	1476
Horton, Ellsworth. (See Chase, John, assignor.)						
Horton, Joseph D., and F. S. Lee, Chicago, Ill. Device for coloring shingles or other flat articles.....	454,356	June 16	1759	458	55	1499
Horton, Numon N., Kansas City, Mo. Vehicle-wheel.....	465,135	Dec. 15	1803	456	57	1496
Horton, Numon N., Kansas City, Mo. Bicycle.....	465,136	Dec. 15	1805	457	57	1497
Horton, Peter D., Oakland, assignor of one-third to J. M. Walling, Nevada City, Cal. Pen-holder.....	451,005	Apr. 21	2120	523	55	427
Horton, William G. (See Headley and Horton.)						
Horvath, Jennie, assignor of one-half to M. Stern, New York, N. Y. Overseaming sewing-machine.....	452,864	May 26	2286	574	55	1033
Hosack, Harold H. (See Simpson, Henry J., assignor.)						
Hösch, Johann C., Vienna, Austria-Hungary. Photographic process for printing in colors.....	465,178	Dec. 15	1870	.....	57	1509
Hose, Wallace, and H. Curtin, Little Falls, N. Y. Automatic take-up for rotary knitting-machines.....	463,788	Nov. 24	2493	651	57	1057
Hosea, Lewis M. (See Beardsley and Hosea.)						
Hosey, James, St. Louis, Mo. Windmill.....	464,224	Dec. 1	343	83	57	1198
Hosford, Frank. (See Tucker, Argyle W., assignor.)						
Hosford, William B., Mishawaka, Ind. Friction-clutch.....	456,571	July 28	2022	{ 534 535 }	{ 56 }	410
Hosford, William B., Mishawaka, Ind. Pulley.....	459,067	Sept. 8	818	198	56	1231
Hosie, Anne. (See Lewis and Hosie, assignors.)						
Hosie, Michael H. (See Lewis and Hosie.)						
Hosier, William, Brooklyn, N. Y. Tramway-switch.....	453,775	June 9	944	{ 244 245 }	{ 55 }	1335
Hoskin, John. (See Hering, Carl, assignor.)						
Hoskin, John R., assignor to J. M. Lively and J. M. Youngs, Toledo, Ohio. Wire-nail-making machine.....	460,720	Oct. 6	304	74, 75	57	60
Hoskins, Charles H. (See Hoskins, George J. and C. H.)						
Hoskins, George, Durham, Mo. Gate.....	460,969	Oct. 13	668	172	57	137
Hoskins, George J. and C. H., Sydney, New South Wales. Machine for calking seams and joints of steam-boilers.....	449,286	Mar. 31	3254	825	54	1771
Hoskins, Silas E., assignor of one-half to W. Davis and E. W. Wilson, Denver, Colo. Fare-register.....	450,936	Apr. 21	1989	489	55	402
Hoss, Henry W., Gamma, assignor of one-half to J. H. Ingram, G. B. and S. T. Aydelott, E. Cope, and J. W. Delventhal, Truxton, Mo. Car-coupling.....	463,513	Nov. 17	2042	535	57	964
Hotchkiss, Charles A. (See Ives and Hotchkiss.)						
Hotchkiss, Edward S., Bridgeport, Conn. Inserting springs in traps.....	449,534	Mar. 31	3680	925	54	1850
Hothersall, James, Brooklyn, N. Y. Carpet-beating machine.....	455,017	June 30	2880	732	55	1724
Hottinger, Gustav, Chicago, Ill. Coloring clay-ware.....	446,683	Feb. 17	1919	{ 477 478 }	{ 54 }	904
Hottman, Charles W., assignor to J. Eppler and J. Klenk, Philadelphia, Pa. Sausage-stuffing machine.....	444,052	Jan. 6	109	27	54	24
Houck, George O., and J. G. Dice, Springfield, Ohio; said Dice assignor to said Houck. Feathering oar or paddle.....	451,431	Apr. 28	2784	688	55	563
Hough, Bruce. (See Adams, Charles A., assignor.)						
Hough, John D. (See Campbell and Hough.)						
Hough, Samuel, Allegheny, Pa. Frame for stretching fabrics.....	454,134	June 16	1426	374	55	1436
Houghton, Alanson B., <i>et al.</i> (See Haines, Robert D., assignor.)						
Houghton, Arthur A., <i>et al.</i> (See Haines, Robert D., assignor.)						
Houghton, Charles E., assignor of one-half to H. R. Johnson, Northumberland, Pa. Nail-plate feeder.....	459,546	Sept. 15	1582	{ 396 397 }	{ 56 }	1388
Houghton, Charles E., assignor of one-half to H. R. Johnson, Northumberland, Pa. Nail-machine.....	462,968	Nov. 10	1193	{ 309 310 }	{ 57 }	791

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Houghton, Charles E., assignor of one-half to H. R. Johnson, Northumberland, Pa. Nail-machine	462,969	Nov. 10	1196	{ 310 311	57	791
Houghton, Charles E., assignor of one-half to H. R. Johnson, Northumberland, Pa. Nail-machine	463,362	Nov. 17	1823	{ 476 477	57	920
Houghton, Charles E., assignor of one-half to H. R. Johnson, Northumberland, Pa. Nail-machine	463,363	Nov. 17	1826	478	57	921
Houghton, Charles E., assignor of one-half to H. R. Johnson, Northumberland, Pa. Nail-machine	463,364	Nov. 17	1828	478	57	921
Houghton, Charles E., assignor of one-half to H. R. Johnson, Northumberland, Pa. Nail-machine	463,365	Nov. 17	1830	479	57	922
Houghton, Charles E., assignor of one-half to H. R. Johnson, Northumberland, Pa. Nail-machine	465,762	Dec. 22	2801	{ 717 718	57	1698
Houghton, John Q. A., Washington, D. C., assignor to Singer Manufacturing Company of New Jersey. Button-hole sewing-machine	449,074	Mar. 24	2912	739	54	1699
Houghton, John Q. A., Washington, D. C., assignor to Singer Manufacturing Company of New Jersey. Button-hole sewing-machine	449,075	Mar. 24	2913	739	54	1699
Houghton, Stanley W. (See Staples and Houghton.)						
Houghton, William, and A. Brown, Norfolk, Va. Portable fire-escape	459,963	Sept. 22	2241	563	56	1520
Hourtney, Rudolph G., Chicago, Ill. Indicator for elevators	465,022	Dec. 15	1599	{ 407 408	57	1460
House, Edgar. (See Brownlee, Robert N., assignor.)						
House, George V., Jr., New York, N. Y. Truss	456,822	July 28	2444	644	56	490
House, George V., Jr., New York, N. Y. Truss-pad	456,823	July 28	2446	644	56	491
House, James A., Bridgeport, Conn. Corn-harvester	464,742	Dec. 8	1143	{ 283 284	57	1361
House, James A., Bridgeport, Conn. Check-punch	464,755	Dec. 8	1161	289	57	1364
House, James A., Bridgeport, Conn., assignor to E. A. Nichols, New York, N. Y. Bottle-washer	445,408	Jan. 27	2272	590	54	469
House, James A., Bridgeport, Conn., assignor to Southern Cotton Harvester Company, of New Jersey. Cotton-harvester	450,584	Apr. 14	1405	{ 346 347	55	277
House, John, Lexington, Va., assignor, by mesne assignments, of one-half to J. B. Flood and R. E. Strange, Annapolis, Md. Portable safety heating and cooking apparatus	454,537	June 23	2049	530	55	1562
House, John H., Wilton, N. C. Churn-motor	464,874	Dec. 8	1333	334	57	1399
House, Joseph L., assignor of one-half to P. B. Christian, Minneapolis, Minn. Lubricator for vehicle-axles	463,682	Nov. 24	2340	614	57	1028
House, Joseph L., assignor of one-half to P. B. Christian and P. Faber, Minneapolis, Minn. Axle-nut	444,053	Jan. 6	110	28	54	25
House, Samuel M. J., Hillsborough, Va. Fence	444,382	Jan. 6	625	162	54	123
House, Warren D., Kansas City, Mo., assignor of one-half to J. C. Pennie, Washington, D. C. Bill-file	448,237	Mar. 17	1574	402	54	1436
Household Sewing Machine Company. (See Chappell, Curtis P., assignor.)						
Housel, Joseph M., Milton, Pa. Grindstone-dresser	456,954	Aug. 4	53	12, 13	56	542
Houser, Edgar W., Syracuse, N. Y. Elevator	458,627	Sept. 1	121	27, 28	56	1090
Houser, John A., assignor to Fleming Manufacturing Company, Fort Wayne, Ind. Road-grader	454,048	June 16	1304	340	55	1413
Housman, Moses, Brooklyn, N. Y. Ornamenting plastic materials	455,666	July 7	596	156	56	116
Houston, Adamantius C., Pickaway, W. Va. Lock mechanism for revolvers	457,278	Aug. 4	555	146	56	636
Houston, William B. (See Ober and Houston.)						
Houston, Charles A., assignor of one-third to W. B. Mathewson, Somerville, N. J. Draft-regulator and spark-arrester	450,072	Apr. 7	622	157	55	121
Houston, David H., Hunter, N. D. Self-loading magnesium flash-lamp	446,918	Feb. 24	2315	575	54	990
Houston, John B., San Francisco, Cal. Metallic rod-packing	463,053	Nov. 10	1313	340	57	815
Houston, Leonard B., San Antonio, Tex. Spring bed-bottom	444,610	Jan. 13	985	256	54	203
Houze, Luke, assignor of two-thirds to C. Foster, L. Mambourgh, and J. E. Wilkeson, Fostoria, Ill. Float for glass-furnaces	455,486	July 7	295	74	56	60
Houze, William P., et al. (See Green, David S., assignor.)						
Hovde, Andreas G., Hoenefos, Norway. Lamp-extinguisher	450,410	Apr. 14	1167	284	55	229
Hovey, Henry J. (See Stevens and Hovey.)						
Howard, Abner U., et al. (See Howard, James M., assignor.)						
Howard, Charles, New York, N. Y. Vulcanizing and drying wood	465,975	Dec. 29	3149	807	57	1774
Howard, Charles A. (See Brown, Henry D., assignor.)						
Howard, Charles D., Syracuse, N. Y. Automatic draft-regulating damper	460,579	Oct. 6	57	14	57	13
Howard, Charles D., Syracuse, N. Y. System for heating buildings	463,789	Nov. 24	2496	651	57	1057
Howard, Curtis C., et al., trustees. (See Owen, Walter J., assignor.)						
Howard, Francis A., and J. H. Leonard, Verdella, Mo. Sulky-plow	464,634	Dec. 8	960	237	57	1328
Howard, Frank H., Irvington, N. Y. Necktie-fastener	447,326	Mar. 3	70	19	54	1131
Howard, Frank P., assignor of one-half to M. A. Pingree, Bridgton, Me. Corn-planter	445,557	Feb. 3	46	12	54	520
Howard, George C., Wallingford, Pa. Plate-printing press	446,635	Feb. 17	1837	{ 455 456	54	889
Howard, George T., Boston, Mass. Passenger-car	450,073	Apr. 7	625	158	55	122
Howard, Hartley, et al. (See Howard, James M., assignor.)						
Howard, Henry, Providence, R. I. Platform-door for cars	448,344	Mar. 17	1778	449	54	1475
Howard, Henry, Providence, R. I. Ball-bearing	454,049	June 16	1306	340	55	1413
Howard, Henry, Providence, R. I. Ball-bearing	456,955	Aug. 4	55	13	56	543
Howard, Henry, Phenix, R. I. Ball-bearing	463,833	Nov. 24	2563	668	57	1072
Howard, Henry, Phenix, R. I. Ball-bearing	463,834	Nov. 24	2564	668	57	1072
Howard, Henry, Brookville, Md., assignor of one-half to T. H. Alexander, Washington, D. C. Hand-stamp	449,076	Mar. 24	2914	{ 739 740	54	1699
Howard, Henry G. M., Kalamazoo, Mich. Vehicle-wheel	465,476	Dec. 22	2344	600	57	1610
Howard, Henry G. M., and W. H. Shannon, assignors of one-third to Bush Surface Cattle Guard Company, Limited, Kalamazoo, Mich. Surface cattle-guard	455,717	July 7	680	179	56	131
Howard, Herbert R. (See Howard, James and H. R.)						
Howard, Hiram, et al. (See Whiting, William F., assignor.)						
Howard, Hiram C. (See Howard, Parks, and Whiting, assignors.)						
Howard, James and H. R., New York, N. Y. Power-brake for railway-cars	458,507	Sept. 1	386	93	56	1139
Howard, James H., Baldwin, Kans. Cattle-rack	454,357	June 16	1760	458	55	1500
Howard, James H., Medford, Mass. Telephone-receiver	459,205	Sept. 8	1035	252	56	1273
Howard, James H., Medford, Mass. Hook or crutch for telephone-receivers	459,213	Sept. 8	1050	255	56	1276
Howard, James H., Medford, Mass. Telephone	459,214	Sept. 8	1051	256	56	1276
Howard, James M., Mifflin, assignor of two-thirds to A. U. and H. Howard, Pittsburg, Pa. Plate-glass-sealing apparatus	449,043	Mar. 24	2866	{ 728 729	54	1691
Howard, John. (See Lowman and Howard.) (Reissue.)						
Howard, Mabel, Washington, D. C. Game apparatus	461,018	Oct. 13	738	{ 190 191	57	150

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Howard Manufacturing Company. (See Peterson, Theodore, assignor.)						
Howard, Nancy L., <i>et al.</i> , trustees. (See Owen, Walter J., assignor.)						
Howard, Rufus P. (See Davis and Howard.)						
Howard, Stephen C., <i>et al.</i> (See Whiting, William F., assignor.)						
Howard, Stephen C., Providence, R. I., G. W. Parks, Brooklyn, N. Y., and W. F. Whiting, assignors of one-fourth to H. Howard, Providence, R. I. Boot or shoe	455,847	July 14	894	235	56	180
Howard, William H., assignor of one-half to E. S. Davis, Pana, Ill. Baling-press	450,585	Apr. 14	1408	347	55	278
Howard, William H., Lowell, Mass. Stocking	461,183	Oct. 13	977	251	57	194
Howard, William K., Jr., Fredericksburg, Va. Hanging device for arc lamps	465,665	Dec. 22	2661	679	57	1670
Howarth, Fredrick E. (See Wood and Howarth.)						
Howatt, David E., Hyde Park, N. Y. Sectional water-heater	459,096	Sept. 8	871	{ 209 210 }	{ 56 }	1242
Howden, James, Glasgow, Scotland. Valve-gear	456,414	July 21	1768	468	56	354
Howe, Alfred J., Lowell, Mass. Combined milk measure and heater	451,444	Apr. 28	2812	695	55	569
Howe, Charles C. (See Farrar and Howe.)						
Howe, Elmer P. (See Jacobson, John, assignor.)						
Howe, Eugene L., Cleveland, Ohio. Harness-saddle	465,270	Dec. 15	2014	515	57	1537
Howe, Frederic W., Providence, R. I. Type-writing machine	455,944	July 14	1034	{ 270 271 272 }	{ 56 }	206
Howe, George H., assignor to W. A. Wood Mowing and Reaping Machine Company, Hoo-sick Falls, N. Y. Sheaf carrier and dumper for harvesters	456,825	July 28	2449	645	56	491
Howe, George M., Chicago, Ill. Automatic safety-switch	454,169	June 16	1483	{ 389 390 }	{ 55 }	1447
Howe, George W., Washington, Iowa. Ventilator	453,638	June 9	727	188	55	1294
Howe, Glenn G., Indianapolis, Ind. Friction-clutch	453,810	June 9	991	258	55	1344
Howe, Herbert R., Howe, Nebr. Colter and wheel bearing	463,899	Nov. 24	2677	697	57	1091
Howe, Hiram E., <i>et al.</i> (See Baker, Henry B., assignor.)						
Howe, James. (See Rogers and Howe.)						
Howe, John C., Worcester, Mass. Sash-fastener	448,882	Mar. 24	2629	660	54	1643
Howe, Louis M., Greenwood, and L. A. Gates, assignors to H. J. Postel, San Francisco, Cal. Apparatus for extracting gold and silver from ores	454,538	June 23	2050	530	55	1562
Howe, Manley, Boston, Mass. Car-coupling	455,795	July 14	816	213	56	166
Howe, Thomas B., Scranton, Pa. Machine for forming glass bottles	447,451	Mar. 3	297	75	54	1173
Howe, Thomas B., Scranton, Pa. Bottle-forming machine	447,452	Mar. 3	299	75, 76	54	1171
Howe, William T., Keosauha, Wis. Spring bed-bottom	450,968	Apr. 21	2059	507	55	415
Howell, Commodore P., Chattanooga, Tenn. Railway-tie	456,966	July 14	1921	329	56	246
Howell, Elizabeth E., Maryville, Mo. Self-waiting table	464,073	Dec. 1	103	26	57	1157
Howell, George W., Covington, Ky. Water-pipe cut-off	452,644	May 19	1942	487	55	957
Howell, Harry, Wilmington, Del. Drip-valve	453,189	June 2	17	6	55	1152
Howell, Harry, Wilmington, Del. Three-way cock	453,445	June 2	431	110	55	1229
Howell, John A., U. S. Navy. Marine torpedo	458,677	Sept. 1	203	47, 48	56	1104
Howell, John W., Montana, Kans. Fruit-gatherer	444,884	Jan. 20	1459	378	54	302
Howell, John W., Newark, N. J. Electric safety-catch	460,140	Sept. 29	2522	628	56	1580
Howell, Lewis O., Jr. (See Weaver, Ephraim E., assignor.)						
Howell, Lyle A., Pullman, Ill. Metallic corner for stairs	450,102	Apr. 7	669	169	55	131
Howell, Robert R., Minneapolis, Minn. Grain-measuring machine	459,729	Sept. 15	1881	473	56	1444
Howenstine, John, Fort Wayne, Ind. Folding box	453,479	June 2	479	124	55	1239
Howenstine, John, Fort Wayne, Ind. Staple forming and setting machine	456,415	July 21	1769	{ 468 469 470 }	{ 56 }	354
Howes, Albert P., Worcester, Mass. Automatic float-cock	453,784	June 9	960	249	55	1338
Howes, Albert P., Worcester, Mass. Faucet	453,785	June 9	961	250	55	1338
Howett, Henry C., Kansas City, assignor of one-half to L. H. Hoover, St. Louis, Mo. Bot-tle-wrapper	453,169	May 26	2809	704	55	1130
Howland, Alfred. (See Howland, Ephraim, A., and C.)						
Howland, Charles. (See Howland, Ephraim, A., and C.)						
Howland, Charles E., Providence, R. I. Shoe-protector	449,416	Mar. 31	3505	882	54	1817
Howland, Ephraim, Pontiac, Mich. Steam steering-gear for vehicles	453,368	June 2	291	77	55	1202
Howland, Ephraim, Pontiac, Mich. Steering-gear for vehicles	453,369	June 2	292	77	55	1202
Howland, Ephraim, A., and C., Pontiac, Mich. Traction attachment for thrashers	451,557	May 5	170	41	55	612
Howland, Frank E., Peoria, Ill. Bottle-cleaner	463,835	Nov. 24	2566	668	57	1072
Howland, George B., Pontiac, Ill. Grain separator and cleaner	458,713	Sept. 1	253	60	56	1113
Howland, John, Lowell, Mass. Seed-planter	451,761	May 5	491	{ 121 122 }	{ 55 }	671
Howland, Samuel H., New York, N. Y. Forming shoe-bottom fillings	458,421	Aug. 25	2446	595	56	1018
Howland, William H., Bergenfield, N. J. Crushing and pulverizing machine	450,488	Apr. 14	1281	{ 313 314 }	{ 55 }	251
Howle, George B., <i>et al.</i> (See McKee, George H., assignor.)						
Hoxie, Edmond, Everett, Mass. Sprinkler	458,628	Sept. 1	126	28	56	1090
Hoxie, Edmond, Everett, Mass. Stationary fire-engine	466,269	Dec. 29	3628	928	57	1866
Hoya, Louis von der, Atlanta, Ga. Folding lantern	464,486	Dec. 1	733	{ 179 180 }	{ 57 }	1275
Hoyer, Frank F. (See Shuttleworth, Charles H., assignor.)						
Hoyle, Ellis J. (See Stanton, Henry, assignor.)						
Hoyt, Andrew J., Philadelphia, Pa. Shawl-strap	454,944	June 30	2745	699	55	1698
Hoyt, Buckingham S., New York, N. Y. Ticket-holder	444,593	Jan. 13	963	250	54	200
Hoyt, Charles C., Revere, Mass., assignor of one-half to Hope Webbing Company, Providence, R. I. Woven tape	445,141	Jan. 20	1872	484	54	381
Hoyt, Charles J. (See McCloskey, William, assignor.)						
Hoyt, Charles N., Brooklyn, assignor to McLoughlin Brothers, New York, N. Y. Game apparatus	453,480	June 2	480	124	55	1239
Hoyt, Dennis A., St. Cloud, Minn. Lawo-sprinkler	448,522	Mar. 17	2043	{ 511 512 }	{ 54 }	1525
Hoyt, Fred J., Chicago, Ill. Sand and gravel cleaning machine	449,417	Mar. 31	3506	{ 882 883 }	{ 54 }	1817
Hoyt, George W. (See Finkelstein, Henry, assignor.)						
Hoyt, Henry L., Portland, Oreg. Sleeve-holder	462,555	Nov. 3	531	129	57	652
Hoyt, Joseph G., <i>et al.</i> (See Hols, John C., assignor.)						
Hoyt, Joseph M., Salem, assignor to J. M. and W. G. Hoyt and C. Healey, Lynn, Mass. Brush or cleaner for bottle-washing machines	450,824	Apr. 21	1831	444	55	371
Hoyt, Lindley E., <i>et al.</i> (See Pinch, Frank, assignor.)						
Hoyt, Matthew L., Ballston Spa, N. Y. Churn-cover	462,007	Oct. 27	2377	589	57	478

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Hoyt, Matthew L., Ballston Spa, N. Y. Churn-valve	463,422	Nov. 17	1921	502	57	939
Hoyt, Peter C., Watseka, Ill. Hot-air furnace	446,222	Feb. 10	1174	287	54	744
Hoyt, Thomas J., Mount Clemens, Mich. Apparatus for purifying water	445,780	Feb. 3	441	288	54	598
Hoyt, Will F., Dowagiac, Mich. Grain-drill	446,230	Feb. 10	1186	290	54	746
Hoyt, Will F., Dowagiac, Mich. Hopper and shoe for grain-drills	448,861	Mar. 24	2606	291	54	1639
Hoyt, William G., <i>et al.</i> (See Hoyt, Joseph M., assignor.)				654		
Hubbard, Benjamin V., Temple, Tex. Journal-lubricator	452,477	May 19	1688	425	55	908
Hubbard, Charles W., Pittsburg, Pa. Manufacture of axes	444,836	Jan. 20	1348	350	54	280
Hubbard, Charles W., Pittsburg, Pa. Ax	457,646	Aug. 11	1172	300	56	761
Hubbard, Clement S. (See Clark, George M., assignor.)						
Hubbard, Eber, Chicago, Ill., assignor to United Indurated Fibre Company, Portland, Me., Winder for making fiber pails	452,707	May 19	2036	510	55	976
Hubbard, Ervin S., Cleveland, Ohio. Game-counter	450,962	Apr. 21	2050	511	55	413
Hubbard, Frederick J., and J. Potter, assignors to W. H. Craig, Chicago, Ill. Pocket to- barco-case	461,578	Oct. 20	1688	505	57	338
Hubbard, George M., assignor to W. & E. T. Fitch, New Haven, Conn. Snap-hook	447,567	Mar. 3	486	413	54	1209
Hubbard, Gardiner G. (See Gustafson, John, assignor.)				119		
Hubbard, Moses G., Chicago, Ill. Car-truck	450,156	Apr. 14	751	190	55	152
Hubbard, Moses G., Chicago, Ill. Car-truck	450,157	Apr. 14	754	191	55	153
Hubbard, Moses G., Chicago, Ill. Car-gear	450,726	Apr. 21	1670	403	55	341
Hubbard, Moses G., Chicago, Ill. Car-truck	457,740	Aug. 11	1330	345	56	793
Hubbard, Moses G., Chicago, Ill. Railway-track	465,984	Dec. 29	3167	812	57	1778
Hubbard, Moses G., Chicago, Ill. Railway fish-plate	465,985	Dec. 29	3169	813	57	1778
Hubbard, Moses G., Jr., Chicago, Ill. Brake for railway-cars	463,683	Nov. 24	2342	614	57	1028
Hubbard, Norman, <i>et al.</i> (See Herold, John, assignor.)						
Hubbard, Omar H., St. Paul, Minn. Combined revolving table, book-file, and blank-case ..	461,756	Oct. 20	1973	488	57	392
Hubbard, William A. (See Churchill, Henry, assignor.)						
Hubbard, William S., Coventry, and R. Gibbins, Leicester, England, assignors to said Hub- bard and A. E. Herbert. Machine for sorting pills and other similar articles	450,937	Apr. 21	1992	490	55	403
Hubbell, Algernon S., assignor to A. Gardner, Norwich, Conn. Umbrella	453,301	June 2	183	50	55	1182
Hubbell, Charles H., assignor of three-fourths to F. J. Hunleth, A. Kilpatrick, and R. Loew- enstein, St. Louis, Mo. Mineral wool	453,115	May 26	2706		55	1115
Hubbell, Clarence Z., Chicago, Ill. Car coupling and buffer	455,331	July 7	44	13	56	11
Hubbell, Clarence Z., Chicago, Ill. Car coupling and buffer	457,995	Aug. 18	1756	461	56	880
Hubbell, Ray, and J. A. Cole, Northville, N. Y. Apparatus for scouring metal	455,045	June 30	2931	746	55	1734
Hubel, Frederick A. (See Smith, Jesse M., assignor.)						
Hubel, Frederick A., Detroit, Mich. Gelatine-capsule-dipping machine	465,933	Dec. 29	3075	789	57	1761
Hubel, Frederick A., and J. M. Smith, Detroit, Mich.; said Smith assignor to said Hubel. Gelatine-capsule-dipping machine	465,932	Dec. 29	3071	788	57	1760
Hübener, Herman G. (See Beekman and Hübener.)						
Hübener, Hermann, Berlin, Germany. Carbonating liquids	455,102	June 30	3033	771	55	1755
Hübener, Hermann, Berlin, Germany. Beverage	455,103	June 30	3034		55	1755
Huber, Allen J., Lima, Ohio. Locomotive-engine	462,556	Nov. 3	532	129	57	652
Huber, Charles M., <i>et al.</i> (See Stewart, William A., assignor.)				130		
Huber, Edward, Marion, Ohio. Bolt	447,516	Mar. 3	411	100	54	1195
Hubinger, Joseph E., <i>et al.</i> (See Garland, Frank M., assignor.)						
Hubinger, Nicholas W., <i>et al.</i> (See Garland, Frank M., assignor.)						
Hubner, Emil, New York, N. Y. Machine for threading bolts	459,634	Sept. 15	1738	436	56	1417
Hübner, Ernst, Halle-on-the-Saale, Germany. Apparatus for compensating the pressure in slide-pumps for air and gases	445,966	Feb. 3	735	437	54	657
Huck, Henry J., Jr., Yoakum, Tex. Account-book	452,970	May 26	2468	438	55	1068
Huekins, Irving W., Philadelphia, Pa. Stop-motion mechanism	454,739	June 23	2369	624	55	1622
Hudco, John F., assignor of one-third to A. Roknsek, Cleveland, Ohio. Railway-rail cross- ing	445,781	Feb. 3	442	625	54	598
Hudgens, Charles W., Elizabeth, Ark. Hame-tug	458,848	Sept. 1	468	110	54	1155
Hudson, Alexander M. (See Stafford and Hudson.)				112	56	
Hudson, Annie L. (See Hudson, Charles W., assignor.)						
Hudson, Bannus, Fort Scott, Kans. Corn-harvester	457,424	Aug. 11	830	215	56	695
Hudson, Charles E., Leominster, Mass. Tool for fastening hose to couplings	445,834	Feb. 3	536	130	54	616
Hudson, Charles E., Leominster, assignor of one-half to C. S. Tolman & Co., Fitchburg, Mass. Feed mechanism for knife-grinding machines	448,616	Mar. 17	2198	550	54	1554
Hudson, Charles E., assignor to Pierce Brothers & Company, Leominster, Mass. Trolley- switch	461,611	Oct. 20	1734	425	57	346
Hudson, Charles W., assignor to A. L. Hudson, Culpeper, Va. Turbine water-wheel	462,256	Nov. 3	54	13	57	563
Hudson, Emma C., Seattle, Wash. Slate	446,777	Feb. 17	2056	512	54	932
Hudson, Emma C., Seattle, Wash. House-door letter-box	452,923	May 12	1258	318	55	820
Hudson, George, Skegness, and P. W. Pickup, Rishton, England. Violin	464,157	Dec. 1	226	54	57	1178
Hudson, Isaac, <i>et al.</i> (See Banks, George L., assignor.)						
Hudson, Thomas C., assignor to G. L. Vose, Providence, R. I. Bracelet	448,617	Mar. 17	2199	551	54	1554
Huebner, S. T., <i>et al.</i> (See Dunn, John P., assignor.)						
Hueffluann, Henry W., Dayton, Ohio. Meat-cutter	451,273	Apr. 28	2555	629	55	520
Hueffner, Henry A., Palmer, Ill. Corrugating-machine	464,875	Dec. 8	1334	334	57	1399
Huelsen, Felix J., and J. Nagel, Cleveland, Ohio. Bicycle	452,073	May 12	1608	251	55	773
Huelsen, Felix J., and J. Nagel, Cleveland, Ohio. Bicycle	455,945	July 14	1443	273	56	207
Huestis, Thomas B., assignor of one-half to E. J. Davis, Boston, Mass. Means for secur- ing knives to cutter-heads of molding-machines	455,211	June 30	3219	817	55	1790
Huetner, Charles A., <i>et al.</i> (See Taylor, Norton B., assignor.)						
Huff, Charles C. (See Huff, William, assignor.)						
Huff, Charles D., Dallas, assignor of one-half to H. Sholes, Avoca, Pa. Thill-coupling	455,284	June 30	3349	845	55	1815
Huff, Frederic, Mainz, Germany. Game	452,708	May 19	2039	511	55	977
Huff, John M., Searcy, Ark. Windlass water-elevator	462,875	Nov. 10	1045	270	57	762
Huff, William, assignor of one-half to C. C. Huff, Landess, Ind. Washing-machine	462,946	Nov. 10	1163	301	57	784
Huffer, John M., and A. B. Buehl, Kansas City, Mo. Adjustable stand for goods forms ..	460,640	Oct. 6	1172	44	57	36
Huffman, Henry, Jr., Stelvido, assignor of one-half to C. H. Grew, Greenville, Ohio. Flood- fence	456,991	Aug. 4	99	25	56	552
Huffman, James R. G., Beardsley, Kans. Motor	446,134	Feb. 10	1018	252	54	718

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Huffman, Mark, Mooreland, Ind. Buckle for harness.....	447,244	Feb. 24	2878	714	54	1096
Huffman, Samuel, Niota, Kans. Corn-planter.....	452,709	May 19	2040	{ 511 512 }	55	977
Huffman, William P., Hickory, N. C. Coin-counter.....	456,701	July 28	2240	{ 593 594 }	56	453
Hufford, William H., Selma, Ind. Trace-fastener.....	466,241	Dec. 29	3579	915	57	1857
Hugentobler, Emil M., assignor to Abendroth & Root Manufacturing Company, New York. } N. Y. Furnace-grate.....	465,527	Dec. 22	2440	{ 621 622 }	57	1628
Huggett, Charles H., Chicago, Ill., assignor to E. & T. Fairbanks & Company, St. Johns- bury, Vt. Platform-scales.....	452,606	May 19	1881	473	55	945
Hughes & Co. (See Lane, Charles C., assignor.)						
Hughes, Dana M. (See Hughes, James S., assignor.)						
Hughes, Edwin S. and H., Glenwood Springs, Colo. Safety-shutter for bottling-machines.	454,980	June 30	2813	716	55	1712
Hughes, Evan E. (See Post, Henry A., assignor.)						
Hughes, Evens S., and G. Conner, Sedan, Kans. Corn-planter.....	450,019	Apr. 7	550	137	55	107
Hughes, Francis L. (See Kennedy, John W., assignor.)						
Hughes, George B. (See Ferguson, Benjamin F., assignor.)						
Hughes, Harry, Abilene, Kans. Covering for cable-conduits.....	462,135	Oct. 27	2573	640	57	515
Hughes, Henry C., Gillsburg, Miss. Cotton-cultivator.....	449,418	Mar. 31	3508	883	54	1818
Hughes, Hiram. (See Hughes, Edwin S. and H.)						
Hughes, James J., Philadelphia, Pa. Chenille-cutter bar.....	445,610	Feb. 3	197	52	54	551
Hughes, James S., assignor to D. M. Hughes, St. Paul, Minn. Trolley-wire support for } electric railways.....	445,142	Jan. 20	1872	{ 484 485 }	54	381
Hughes, John E. (See Sloan, Hughes, and Reed.)						
Hughes, John E., assignor of three-fourths to S. W. Kenward, S. A. Williamson, and R. F. Estes, Pine Bluff, Ark. Railway live-stock car.....	454,822	June 23	2510	646	55	1647
Hughes, Marshall J., New York, N. Y. Sectional core for casting.....	460,473	Sept. 29	3019	756	56	1675
Hughes, William S., New York, N. Y. Steam-engine cross-head.....	458,054	Aug. 18	1843	481	56	897
Hugoniot-Tissot, Lucien, Montecheroux, France. Pliers.....	446,972	Feb. 24	2396	597	54	1005
Hugus, Nicholas P. H., assignor to Sheldon Axle Company, Wilkes-Barré, Pa. Manu- facture of axle-blanks.....	455,594	July 7	481	125	56	93
Hugus, Nicholas P. H., Wilkes-Barré, Pa., assignor to C. L. Sheldon, Auburn, N. Y. Manu- facture of fan-tail axles.....	455,595	July 7	483	125	56	93
Huhlein, Charles F., assignor to B. F. Avery & Sons, Louisville, Ky. Whiffletree.....	459,911	Sept. 22	2177	547	56	1508
Huizer, Samuel L., The Hague, Netherlands. Vehicle-starter.....	451,762	May 5	494	122	55	672
Hulett, George H., Cleveland, Ohio. Combined hoist and conveying machinery.....	448,297	Mar. 17	1695	{ 428 429 }	54	1459
Hull and Liverpool Red Oxide Company. (See Wigg, Walter J., assignor.)						
Hull, Benjamin F., assignor to E. Hull, Clinton, Ill. Interest-calculator.....	444,396	Jan. 6	647	168	54	127
Hull, Charles S., and P. S. Burns, Boston, Mass. Bating.....	452,271	May 12	1333	333	55	834
Hull, David, Colfax, Wash. Brake.....	452,272	May 12	1333	333	55	834
Hull, Emma. (See Hull, Benjamin F., assignor.)						
Hull, J. A. T. (See Gilman, John L., assignor.)						
Hull, John S., Baltimore, Md. Can-soldering machine.....	448,345	Mar. 17	1779	{ 449 450 }	54	1475
Hull, Nicholas A., Peru, Ind. Drawer for sewing-machine attachments.....	444,151	Jan. 6	282	68	54	58
Hull, Nicholas A., Peru, Ind. Sewing-machine case.....	453,837	June 9	1024	267	55	1351
Hull, Nicholas A., Peru, Ind. Sewing-machine cabinet.....	457,968	Aug. 18	1721	451	56	873
Hull, Sarah G., Oklahoma, Oklahoma Ter. Perspiration-powder.....	446,778	Feb. 17	2057	.....	54	933
Hull, Uzal, and W. W. McEwan, assignors to New York Wood Fibre Company, Belvidere, N. J. Making paper pails.....	445,143	Jan. 20	1874	485	54	381
Hull, Uzal, and W. W. McEwan, assignors to New York Wood Fibre Company, Belvidere, N. J. Paper-pail.....	451,799	June 23	2462	632	55	1639
Hull, Uzal, and W. W. McEwan, assignors to New York Wood Fibre Company, Belvidere, N. J. Machine for manufacturing paper pails.....	455,718	July 7	681	179	56	131
Hull, William S., Sheffield, Ala. Electric lock.....	460,391	Sept. 29	2901	725	56	1653
Hull, William S., and J. C. Anderson, Sheffield, Ala. Ore-washer.....	450,756	Apr. 21	1711	414	55	350
Hull, Wolcott A., New York, N. Y. Cracker-cutting machine.....	447,113	Feb. 24	2629	652	54	1049
Hull, Wolcott A., and A. G. Boyer, New York, N. Y.; said Boyer assignor to said Hull, Machine for shaping plastic material.....	447,132	Feb. 24	2653	{ 658 659 }	54	1054
Hull, Wolcott A., and A. G. Boyer, New York, N. Y.; said Boyer assignor to said Hull, Press for shaping plastic material.....	447,187	Feb. 24	2774	{ 686 687 }	54	1076
Hulmes, Charles V., assignor of one-half to C. W. and T. Martin, Mechanicsburg, Ohio. Device for toasting bread.....	465,666	Dec. 22	2663	679	57	1670
Hulse, James V., Jr., Brooklyn, N. Y. Time-stamp.....	457,279	Aug. 4	557	{ 146 147 }	56	636
Hulsemann, Gerhard, Cincinnati, Ohio. Stuffing-wheel.....	461,019	Oct. 13	739	191	57	151
Humans, William, Cambridge, Mass., assignor to American Magnetic Electric Company, Jersey City, N. J. Telephone.....	449,254	Mar. 31	3203	808	54	1763
Humans, William, Cambridge, Mass., assignor to American Magnetic Electric Company, Jersey City, N. J. Magneto-electric machine.....	453,242	June 2	99	26, 27	55	1167
Humans, William, Cambridge, Mass., assignor to American Magnetic Electric Company, Jersey City, N. J. Attachment for metal-working lathes.....	459,867	Sept. 22	2100	{ 527 528 }	56	1495
Humbert, I. S. (See Long, Archibald A., assignor.)						
Humbert, Léon, Biarritz, France. Buoy.....	462,487	Nov. 3	419	102	57	630
Hume, Francis S., assignor of one-fourth to J. F. Ambrose, New York, N. Y. Stopper.....	466,169	Dec. 29	3477	888	57	1838
Hummel, George W., Lykens, Pa. Watch-maker's punch.....	455,253	June 30	3278	831	55	1801
Hummel, James H., Mount Vernon, N. Y. Weather-strip.....	446,520	Feb. 17	1675	409	54	857
Humphrey, Eugene, trustee. (See Chaplin, Edwin D., assignor.)						
Humphrey, Frederick G., Waterbury, Conn. Coal-chute.....	461,632	Oct. 20	1778	438	57	334
Humphrey, John B., et al. (See Scales, William S., assignor.)						
Humphrey, William. (See Gulick and Humphrey.)						
Humphreys, Edwin W., Chicago, Ill. Coal-sifter.....	448,818	Mar. 24	2524	633	54	1625
Humphreys, William J., Crozet, Va. Weighing and price scale.....	452,224	May 12	1260	318	55	821
Humphreys, William P., assignor, by mesne assignments, to A. M. Stinson, San Francisco, Cal. Joint for suction-pipes of dredgers.....	444,098	Jan. 6	186	46	54	39
Humphreys, William P., assignor to A. M. Stinson, San Francisco, Cal. Joint for suction- pipes.....	444,099	Jan. 6	187	46	54	39
Hundertmark, Charles L. H. de. (See Haedicke, Hermann, assignor.)						
Hundgeburth, Jean, New York, N. Y. Device for fastening adjustably piston-rods or other rods to their cross-heads.....	446,652	Feb. 17	1676	409	54	857
Huneycutt, Noah, and T. E. Moseley, Gainesville, Tex. Cultivator and scraper.....	461,115	Oct. 13	869	224	57	175
Hunleth, Frank J., et al. (See Hubbell, Charles H., assignor.)						
Hunt, Andrew M., Newark, N. J. Coupling for electric wires.....	451,933	May 12	759	192	55	729

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Hunt, Andrew W., <i>et al.</i> (See Chilson, Libbens, assignor.)						
Hunt, Aubrey D., <i>et al.</i> (See Crowley, Richard J., assignor.)						
Hunt, Aubrey D., <i>et al.</i> (See Morgan and Crowley, assignors.)						
Hunt, Benjamin F. (See Landon, Willis H., assignor.)						
Hunt, Charles R., and T. D. Ball, Winters, Cal. Truck	466,073	Dec. 29	3325	849	57	1808
Hunt, Charles W., West New Brighton, N. Y. Car-coupling	444,594	Jan. 13	964	250	54	200
Hunt, Charles W., West New Brighton, N. Y. Car-coupling	444,955	Jan. 20	1593	406	54	326
Hunt, Charles W., West New Brighton, N. Y. Driving mechanism for car-trucks	447,114	Feb. 24	2680	652 653	54	1050
Hunt, Charles W., West New Brighton, N. Y. Car-truck	450,386	Apr. 14	1128	276	55	222
Hunt, Charles W., West New Brighton, N. Y. Car-truck	452,134	May 12	1118	284	55	792
Hunt, Charles W., West New Brighton, N. Y. Car-truck	452,135	May 12	1119	284	55	793
Hunt, Charles W., West New Brighton, N. Y. Car-truck	452,136	May 12	1120	284	55	793
Hunt, Charles W., West New Brighton, N. Y. Car-truck	452,919	May 26	2378	602	55	1049
Hunt, Charles W., West New Brighton, N. Y. Car-truck	454,273	June 16	1633	429	55	1476
Hunt, Charles W., West New Brighton, N. Y. Car-truck	461,680	Oct. 20	1850	458	57	368
Hunt, Charles W., West New Brighton, N. Y. Conveyor	466,039	Dec. 29	3281	837	57	1799
Hunt, Charles W., West New Brighton, N. Y. Conveyor	466,040	Dec. 29	3283	837	57	1799
Hunt, Charles W., West New Brighton, N. Y. Conveyor	466,041	Dec. 29	3284	837	57	1800
Hunt, Charles W., West New Brighton, N. Y. Regulator for conveyers	466,042	Dec. 29	3285	838	57	1800
Hunt, Charles W., West New Brighton, N. Y. Conveyor	466,043	Dec. 29	3286	838	57	1800
Hunt, Charles W., and C. C. King, West New Brighton, N. Y. Switch-lock	451,485	May 5	61	15	55	591
Hunt & Clapp. (See Langley, John W., assignor.)						
Hunt, Franklin B., Richmond, Ind., assignor of one-half to L. C. Allen, Washington, D. C. Bicycle	450,938	Apr. 21	1994	491	55	403
Hunt, George G., Bristol, assignor to Plano Manufacturing Company, Chicago, Ill. Mowing-machine	459,443	Sept. 15	1417	355 356	56	1357
Hunt, George G., Bristol, assignor to Plano Manufacturing Company, Plano, Ill. Harvester-wheel	462,709	Nov. 10	774	202	57	709
Hunt, George J., and T. F. McKechnie, New Westminster, Canada. Gage for aligning engines	458,055	Aug. 18	1844	481	56	897
Hunt, George L. (See Driscoll, Timothy, assignor.)						
Hunt, George T., Chicago, Ill. Cake-beater	455,565	July 7	431	115	56	83
Hunt, Helm & Ferris. (See Ferris, Henry L., assignor.)						
Hunt, Henry C. (See Bruen and Hunt.)						
Hunt, John A., Binghamton, N. Y. Vending-machine	463,054	Nov. 10	1315	349 341	57	815
Hunt, John G., Lenox, Mo. Plow	449,678	Apr. 7	47	11, 12	55	11
Hunt, John H., Hamilton, Canada. Automatic ventilator and foul-air exhauster	461,873	Oct. 27	2167	534	57	438
Hunt, Jonathan W., Kirby, Oreg. Memorial burial tablet and indicator	466,074	Dec. 29	3326	849	57	1809
Hunt, Joseph A., Searcy, Ark. Blast-cartridge	455,332	July 7	45	13	56	12
Hunt, Josiah. (See Hadley and Hunt.)						
Hunt, Kate T., administratrix. (See Hunt, Willis M.)						
Hunt, Marshall E., assignor of one-half to F. W. Lerch, Davenport, Iowa. Wagon-box fastener	455,965	July 14	1072	280	56	212
Hunt, Morris R., Ashland, Wis. Blast-furnace	452,607	May 19	1881	473 474	55	946
Hunt, Nathaniel, and F. C. Cash, assignors of one-half to C. B. Lord and J. C. Lewis, Lynn, Mass. Ash-sifter	456,036	July 14	1176	309	56	232
Hunt, Ozello E., assignor of one-half to Salisbury, Rolph & Co., Minneapolis, Minn. Bed-bottom of springs	464,604	Dec. 8	913	224	57	1319
Hunt, Randell, San Francisco, Cal. Concentrator of subaqueous structures	457,438	Aug. 11	849	220	56	699
Hunt, William H., Jersey City, N. J. Pneumatic annunciator	456,824	July 28	2447	644 645	56	491
Hunt, Willis M., deceased, Glen Gardner, N. J., K. T. Hunt administratrix. Automatic machine for inserting and looping wire in packages of paper	457,351	Aug. 11	719	183 184	56	672
Hunt, Wilson. (See Petro, Samuel H., assignor.)						
Hunt, Wilson. (See Petro and Darnell, assignors.)						
Hunter, Alexander G. (See Blair and Hunter.)						
Hunter, Andrew, Milwaukee, Wis. Dust-collector	449,535	Mar. 31	3682	925	54	1851
Hunter, Andrew, Chicago, Ill. Cuff-holder	452,137	May 12	1121	285	55	793
Hunter, Christopher C., Topeka, Kans. Combined cultivator and seed-drill	447,138	Feb. 24	2778	688	54	1076
Hunter, David, Minneapolis, Minn. Pneumatic dispatch-tube	461,612	Oct. 20	1735	425	57	346
Hunter, George D., Auburn Park, Ill. Crimper for cartridge-shells	449,536	Mar. 31	3684	926	54	1851
Hunter, George D., Auburn Park, Ill. Crimper for cartridge-shells	449,537	Mar. 31	3686	926	54	1851
Hunter, George E., and F. H. Corthell, Elgin, assignors to Elgin National Watch Company, Chicago, Ill. Time-piece movement	455,046	June 30	2932	746 747	55	1734
Hunter, George E., and F. H. Corthell, assignors to Elgin National Watch Company, Elgin, Ill. Stem-setting seconds-hand	455,285	June 30	3350	846	55	1815
Hunter, George W., Fresno, Cal. Axle-setting machine	454,213	June 16	1546	407	55	1459
Hunter, Jesse A. (See Goodwin and Hunter.)						
Hunter, John A., Gettysburg, Pa., and F. H. Knight, Washington, D. C. Lock-hinge	452,478	May 19	1689	425	55	908
Hunter, John W., and T. N. Lakin, Owanecco, Ill. Hay-loader	461,168	Oct. 13	947	244 245	57	188
Hunter, Joseph W., <i>et al.</i> (See Phillips, William H., assignor.)						
Hunter, Lewis C., Fort Wayne, Ind. Book-support	452,673	May 19	1983	497	55	965
Hunter, Louis, Olean, assignor to Standard Oil Company of New York, New York, N. Y. Barrel-hooping machinery	454,800	June 23	2463	632 633	55	1639
Hunter, Robert, Chesaning, Mich. Ditching-machine	451,558	May 5	172	42	55	612
Hunter, Rudolph M., Philadelphia, Pa. Electrically-propelled car	446,817	Feb. 17	2123	527	54	947
Hunter, Rudolph M., Philadelphia, Pa. Electrically-propelled car	451,155	Apr. 28	2342	581 582	55	479
Hunter, Rudolph M., Philadelphia, Pa. Latch and lock combined	464,282	Dec. 1	440	106	57	1218
Hunter, Rudolph M., Philadelphia, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Current-collecting device for electric railways	444,397	Jan. 6	649	169	54	127
Hunter, Rudolph M., Philadelphia, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Current-collecting device for electric railways	444,566	Jan. 13	928	241	54	192
Hunter, Rudolph M., Philadelphia, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Electric railway	447,283	Feb. 24	2941	731	54	1110
Hunter, Rudolph M., Philadelphia, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Electric lighting	448,782	Mar. 24	2478	620	54	1615
Hunter, Rudolph M., Philadelphia, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Electric railway	450,074	Apr. 7	626	158	55	122
Hunter, Rudolph M., Philadelphia, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Electric railway	451,402	Apr. 28	2732	678	55	553

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Hunter, Rudolph M., Philadelphia, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Current-collecting device	454,437	June 16	1892	493	55	1525
Hunter, Rudolph M., Philadelphia, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Electrical transmission of power	460,071	Sept. 22	2404	602	56	1550
Hunter, Rudolph M., Philadelphia, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Electric-railway trolley	462,219	Oct. 27	2712	683	57	541
Hunter, Rudolph M., Philadelphia, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Electric switch	462,407	Nov. 3	308	76	57	609
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Turn-out for electric railways	445,409	Jan. 27	2273	590	54	470
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway	445,674	Feb. 3	268	70	54	565
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway	446,833	Feb. 17	2148	534	54	952
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway	446,834	Feb. 17	2150	534	54	952
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway	448,523	Mar. 17	2045	512	54	1525
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway	449,797	Apr. 7	241	61	55	48
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway	450,586	Apr. 14	1410	348	55	278
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway	451,154	Apr. 28	2310	581	55	479
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway	451,692	May 5	382	94	55	652
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway	455,796	July 14	818	{ 213 214 }	{ 56 56 }	{ 166 166 }
Hunter, Rudolph M., Philadelphia, Pa., assignor, by mesne assignments, to Thomson-Houston Electric Company, Boston, Mass. Electric railway	459,815	Sept. 22	2017	506	56	1477
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric-railway car	445,144	Jan. 20	1875	485	54	381
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	445,952	Feb. 3	708	172	54	961
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	448,618	Mar. 17	2199	551	54	1555
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	448,653	Mar. 24	2267	569	54	1574
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	452,920	May 26	2379	{ 602 603 }	{ 55 55 }	{ 1050 1050 }
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	456,513	July 21	1928	510	56	384
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	456,514	July 21	1932	510	56	385
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	457,736	Aug. 11	1321	344	56	790
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Heating and lighting system	462,926	Nov. 10	1140	{ 294 295 }	{ 57 57 }	{ 779 779 }
Hunter, Rudolph M., assignor to Feister Printing Company, Philadelphia, Pa. Perfecting printing-machine	449,446	Mar. 31	3552	{ 894 895 }	{ 54 54 }	{ 1825 1825 }
Hunter, Rudolph M., Philadelphia, Pa., assignor to Union Special Sewing Machine Company, of Illinois. Apparatus for holding and sewing carpets	460,504	Sept. 29	3075	771	56	1685
Hunter, Rudolph M., Philadelphia, Pa., assignor to Union Special Sewing Machine Company, of Illinois. Apparatus for holding and sewing fabrics	460,505	Sept. 29	3079	771	56	1686
Hunter, Rudolph M., Philadelphia, Pa., assignor to Union Special Sewing Machine Company, of Illinois. Apparatus for holding and sewing fabrics	460,506	Sept. 29	3082	772	56	1687
Hunter, Rudolph M., Philadelphia, Pa., assignor to Union Special Sewing Machine Company, of Illinois. Apparatus for holding and sewing fabrics	460,507	Sept. 29	3085	772	56	1688
Hunter, Rudolph M., Philadelphia, Pa., assignor to Union Special Sewing Machine Company, of Illinois. Apparatus for holding and sewing fabrics	460,508	Sept. 29	3087	772	56	1689
Hunter, Rudolph M., assignor to C. A. Wright, Philadelphia, Pa. Machine for gilding cards, &c.	463,370	Nov. 17	1836	{ 480 481 }	{ 57 57 }	{ 923 923 }
Hunter & Son, James. (See Rogers, John, assignor.)						
Hunter, Walter J. B., Chicago, Ill. Sash-operating device	464,567	Dec. 8	860	211	57	1308
Hunter, William R., Damariscotta, Me. Car-coupling	461,546	Oct. 20	1639	401	57	328
Hunting, Alfred A., Salem, Mass. Parallel-ruler	450,619	Apr. 21	1479	363	55	298
Hunting, Alfred A., Salem, Mass. Machine for treating leather	451,486	May 5	61	15, 16	55	591
Hunting, Dave Z., Van Buren, Ark. Wheel-cultivator	461,184	Oct. 13	978	251	57	194
Hunting, Nelson, Albany, N. Y. Apparatus for distilling water	448,041	Mar. 10	1267	323	54	1365
Huntington, Frank A., et al. (See Nichols, Emory L., assignor.)						
Huntington, Frank A., Oakland, Cal. Power street-paving machine	452,184	May 12	1201	304	55	808
Huntington, Glen W., et al. (See Frazer, Thornton A., assignor.)						
Huntington, Harry G., assignor of one-half to W. A. Wilhite, Ladoga, Ind. Automatic gate	465,110	Dec. 15	1758	444	57	1489
Huntington, Lawson G., New York, N. Y., and R. J. Armour, Newark, N. J. Signal lamp or lantern	463,402	Nov. 17	1895	494	57	933
Huntington, Thomas S., New York, N. Y., assignor to Domestic Sewing Machine Company, of Ohio. Embroidery attachment for sewing-machines	445,953	Feb. 3	710	173	54	652
Huntington, Wilbur, et al. (See Angell, Albert, assignor.)						
Huntington, Wilbur, et al. (See Hawkins, John J., assignor.)						
Huntington, Wilbur, et al. (See Muggeridge, William H., assignor.)						
Huntington, William G., Pipestone, Minn. Band-cutter and feeder	446,973	Feb. 24	2397	597	54	1005
Huntley, Andrew J. (See Chezem, Andrew, assignor.)						
Huntley, Cranson & Hammond. (See Huntley, William W., assignor.)						
Huntley, William W., assignor, by mesne assignments, to Huntley, Cranson & Hammond, Silver Creek, N. Y. Feed device for grain-cleaning machines, roller-mills, &c.	447,072	Feb. 24	2567	37	54	1037
Hunting, John F., et al. (See Dunn, John P., assignor.)						
Hunzinger, Jacob, Brooklyn, N. Y. Wood-carving machine	463,836	Nov. 24	2567	{ 668 669 }	{ 57 57 }	{ 1072 1072 }
Huppmann-Gerard, Paul. (See Meyer and Huppmann-Gerard.)						
Hurd, George M., Omaha, Tex. Portable derrick	464,876	Dec. 8	1335	{ 334 335 }	{ 57 57 }	{ 1400 1400 }
Hurd, James C., assignor of one-half to F. K. Williams, Springfield, Mass. Chair	463,046	Oct. 27	2434	603	57	489
Hurd, Judson B., and H. H. McLane, San Antonio, Tex.; said Hurd assignor to said McLane. Single-seed planter	445,641	Feb. 3	198	52, 53	54	551

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Hurd, Jodson B., and H. H. McLane, San Antonio, Tex.; said Hurd assignor to said McLane. Hydraulic motor	461,938	Oct. 27	2281	565	57	460
Hurlburt, Edward, and D. H. Benjamin, Utica, N. Y. Starching-machine	458,272	Aug. 25	2206	{ 540 541 }	56	972
Hurlburt, Samuel W., Creston, Iowa. Folding crate	456,653	July 28	2163	573	56	439
Hurlbut, Charles H., North Amherst, Ohio. Carpet-stretcher	456,491	July 21	1893	{ 500 501 }	56	377
Hurlbut, George H., Belvidere, Ill. Magazine photographic camera	462,842	Nov. 10	993	257	57	752
Hurlbut, Samuel C., Elmwood, assignor to W. E. Goodwin, West Hartford, Conn. Type-writing machine	455,719	July 7	682	{ 179 180 }	56	131
Hurlbut, Seth E., Chicago, Ill. Paving-block	456,378	July 21	1715	454	56	344
Hurley, Daniel, assignor to C. Cooper, Bennington, Vt. Sinkerspring for straight-knitting machines	465,374	Dec. 15	2191	561	57	1570
Hurley, Frank M., Bennington, Ohio. Music-leaf turner	451,763	May 5	495	132	55	672
Hurley, John S., assignor to M. Hurley, Lynn, Mass. Thill-tug	449,906	Apr. 7	395	99	55	77
Hurley, Michael. (See Hurley, John S., assignor.)						
Hurrell, William E., London, England, assignor to P. H. Sercombe, Milwaukee, Wis. Velocipede	448,580	Mar. 17	2129	534	54	1542
Hurst, Alfred F., assignor of one-half to P. Jackson, St. Louis, Mo. Covering for steam-pipes	462,047	Oct. 27	2435	603	57	489
Hurst, Charles M., et al. (See Bold, William M., assignor.)						
Hurst, Frederick, Toronto, Canada. Hinge	453,481	June 2	481	124	55	1239
Hurst, George, Preston, and J. Fenton, Ashton-on-Ribble, England. Roller traverse motion for spinning machinery	451,764	May 5	496	122	55	672
Hurst, James W., Hotchkiss, Colo. Combined hoe, pick, and shovel	465,763	Dec. 22	2803	718	57	1698
Hurst, John C. (See Readman, William, assignor.)						
Hurst, John C., Holton, Kans. Feed-rack	445,221	Jan. 27	2003	516	54	415
Huse, Leon C., assignor to W. D. Huse, Laconia, N. H. Feeding mechanism for circular-knitting machines	455,018	June 30	2882	732	55	1725
Huse, Warren D. (See Huse, Leon C., assignor.)						
Huse, Warren D., Laconia, N. H. Yarn-winding machine	463,423	Nov. 17	1923	502	57	940
Husel, Charles Z., St. Clair, Mich. Swinging gate	450,233	Apr. 14	881	219	55	176
Husemann, Gottlieb D., St. Louis, Mo. Ore-concentrator	448,961	Mar. 24	2742	{ 691 692 }	54	1666
Hush, Harry J., Baltimore, Md. Halter	464,283	Dec. 1	443	106	57	1219
Huson, Winfield S. (See Hawkins, Hinson, and Yates.)						
Huss, Hermann F. C., Bernburg, Germany. Apparatus for instantaneous steam generation	445,222	Jan. 27	2004	516	54	415
Hussey, Binns & Company. (See Smith, Abia B., assignor.)						
Hussey, Charles A., assignor to M. J. Paillard & Co., New York, N. Y. Electric music-box	446,684	Feb. 17	1920	{ 478 479 }	54	904
Hussey, Levi, and E. McCann, New York, N. Y. Washer for exhaust-steam	456,572	July 28	2024	535	56	410
Hussey, Levi, and E. McCann, New York, N. Y. Steam-trap	462,798	Nov. 10	915	{ 238 239 }	57	737
Hussey, Levi, and E. McCann, assignors of one-third to T. Hatch, New York, N. Y. Grease-separator for steam-engines	447,327	Mar. 3	71	19, 20	54	1131
Hussey, Silvanus, Brant, N. Y. Wrench	444,937	Jan. 20	1556	399	54	319
Hussey, Timothy B., North Berwick, Me. Cultivator	455,212	June 30	3220	817	55	1791
Hussong, Joseph, Camden, N. J. Dyeing-machine	450,020	Apr. 7	550	137	55	107
Huster, Theodor, Paterson, assignor of one-third to C. E. Hassenpflug, Passaic county, N. J. Forming letters in door-plates	464,362	Dec. 1	561	137	57	1241
Hutcheson, Cas. E. and F. L. Weatherford, Tex. Washing-machine	452,788	May 26	2174	544	55	1011
Hutcheson, Franklin L. (See Hutcheson, Cas. E. and F. L.)						
Hutcheson, William, Baltimore, Md. Screw-cutting tool	453,811	June 9	992	258	55	1344
Hutchings, Bloomfield L., Blue Springs, Mo. Coffee-pot	463,950	Nov. 24	2759	715	57	1108
Hutchings, George S., Cambridge, Mass. Combination organ stop-action	451,380	Apr. 28	2698	670	55	547
Hutchings, John and W. N., Warrington, England. Apparatus for making extracts from tan-bark	444,068	Jan. 6	141	35	54	31
Hutchings, William N. (See Hutchings, John and W. N.)						
Hutchins, Charles H. (See Kelsea, George K., assignor.)						
Hutchins, Eugene R., assignor to Hutchins Refrigerator Car Company, Chicago, Ill. Refrigerator-car	454,869	June 30	2587	{ 664 665 }	55	1669
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Harness-motion for looms	446,553	Feb. 17	1722	{ 422 423 }	54	866
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Harness-lever for looms	453,302	June 2	184	50	55	1182
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Lay-motion for looms	453,717	June 9	855	221	55	1317
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Shedding and shuttle-box-operating mechanism for looms	454,135	June 16	1429	374	55	1436
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Positive shuttle-operating mechanism for looms	457,084	Aug. 4	241	62	56	579
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Take-up mechanism for looms	457,451	Aug. 11	871	226	56	702
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Take-up for looms	459,173	Sept. 8	991	242	56	1265
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Take-up mechanism for looms	461,978	Oct. 27	2337	{ 579 580 }	57	470
Hutchins, George K., et al. (See Smith and Swain, assignors.)						
Hutchins, Henry H., Ganges, Mich. Assorting-machine	456,092	July 14	1245	{ 327 328 }	56	245
Hutchins, Henry H., Ganges, Mich. Fruit and vegetable assorter	465,856	Dec. 29	2950	754	57	1736
Hutchins Refrigerator Car Company. (See Hutchins, Eugene R., assignor.)						
Hutchinson, Arthur L., Mechanic Falls, Me. Chopping-knife	452,789	May 26	2175	544	55	1011
Hutchinson, Christopher C. (See Johnson and Hutchinson.)						
Hutchinson, Eleazer, Newton, Mass. Cuff-holder	452,790	May 26	2176	545	55	1012
Hutchinson, George L., et al. (See Harpold, Adam, assignor.)						
Hutchinson, Harrie B., et al. (See Butler, Howard H., assignor.)						
Hutchinson, Henry, assignor to S. J. Moore, Toronto, Canada. Machine for reblocking cloth or other material	448,834	Mar. 24	2550	640	54	1629
Hutchinson, Henry, and F. Madgin, Newcastle-upon-Tyne, assignors to J. C. Newey, Birmingham, England. Hook for wearing-apparel, window-curtains, &c.	445,893	Feb. 3	620	152	54	634
Hutchinson & Huestis. (See McPherson, Alexander, assignor.)						
Hutchinson, Jesse, Middletown, Va. Harness	451,381	Apr. 28	2701	670	55	547

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Hutchinson, Warren B. (See Hutchinson, William F., assignor.)						
Hutchinson, William F., assignor of one-third to W. B. Hutchinson, Passaic, N. J. Pocket-bank	465,137	Dec. 15	1807	457	57	1497
Hutchison, Persifer F., New Hampshire, Ohio. Car-coupling	460,970	Oct. 13	670	173	57	137
Huth, John, and G. Rex, Canton, Ohio. Clothes-line holder	446,522	Feb. 17	1677	409	54	857
Huther, Jacob, St. Louis Mo. Alarm-lock	402,710	Nov. 10	775	202	57	709
Hutt, David, Carlsruhe, Germany. Spur	450,512	Apr. 14	1316	323	55	259
Huttenlocher, Gottlieb, and W. Ullmer, Des Moines, Iowa. Paint-distributor	444,440	Jan. 13	718	188	54	150
Hutton, David B., and A. F. G. Daniels, Essex, England. Drill for drilling square bores	456,258	July 21	1515	401	56	307
Hutton, George H. and G. H., Jr., Baltimore, Md. Convertible vehicle	449,365	Mar. 31	3416	859	54	1798
Hutton, George H. and G. H., Jr., Baltimore, Md. Jointed iron for vehicle-seats	449,419	Mar. 31	3509	883	54	1818
Huxtable, Robert C., Dartmouth, Nova Scotia, Canada. Chalk-line holder and plummet	461,757	Oct. 20	1975	429	57	392
Hnyett, Daniel D., deceased; J. Price, Waynesborough, Pa., administrator. Bag-holder.	452,850	May 26	2266	568	55	1029
Hnyett & Smith Manufacturing Company. (See Smith, Wright D., assignor.)						
Hyatt, John W., Newark, N. J. Head for pressure-reservoirs	445,180	Jan. 27	1939	501	54	403
Hyatt, John W., Newark, N. J. Downward filtration	445,585	Feb. 3	105	25, 26	54	532
Hyatt, John W., assignor to Celluloid Company, Newark, N. J. Apparatus for thickening and protecting the edges of collars or cuffs	455,333	July 7	45	13	56	12
Hyatt, William F., Brooklyn, N. Y. Lock	444,885	Jan. 20	1461	378	54	302
Hyatt, William F., Brooklyn, N. Y. Lock	464,023	Dec. 1	29	8	57	1142
Hyatt, William F., Brooklyn, N. Y. Safety-pin	466,100	Dec. 29	3365	859	57	1816
Hyde, Albert W., Newton Centre, Mass. Apparatus for treating viscous rock for paving purposes	447,711	Mar. 3	692	172	54	1249
Hyde, Alphonso M. (See Hyde, James C. and A. M.)						
Hyde, Arunah W. (See Coomes and Hyde.)						
Hyde, Caroline, Stonington, Conn. Artificial fruit	463,900	Nov. 24	2678	697	57	1091
Hyde, Fred C. (See Brumbagh, Radcliff, and Hyde.)						
Hyde, George W. (See Clark, Elisha W., assignor.)						
Hyde, Hampden, Rochester, N. Y. Heater	451,245	Apr. 28	2505	618	55	510
Hyde, James C. and A. M., West Haven, Conn. Buckle	454,170	June 16	1485	390	55	1447
Hyde, Kirkley. (See Webster and Hyde.)						
Hyde, Theophilus R., Jr., assignor to Scovill Manufacturing Company, Waterbury, Conn. Button-fastener	452,138	May 12	1122	285	55	793
Hyde, Theophilus R., Jr., assignor to Scovill Manufacturing Company, Waterbury, Conn. Eyelet-setting machine	452,139	May 12	1122	285	55	793
Hyde, Theophilus R., Jr., assignor to Scovill Manufacturing Company, Waterbury, Conn. Button	452,572	May 19	1828	459	55	934
Hyde, Theophilus R., Jr., assignor to Scovill Manufacturing Company, Waterbury, Conn. Button	465,271	Dec. 15	2015	515	57	1537
Hyde, Thomas B., Taylor, Tex. Cotton-picker	463,055	Nov. 10	1319	341	57	816
Hydraulic Elevator Company. (See Bassett, Norman C., assignor.)						
Hydraulic Elevator Company. (See Foster, Charles E., assignor.)						
Hydraulic Elevator Company. (See Ongley, Charles E., assignor.)						
Hyer, Robert S., Georgetown, Tex. Plow	447,517	Mar. 3	412	101	54	1195
Hyer, Walter E., Newburg, N. Y. Electric motor	451,559	May 5	175	42	55	613
Hyers, Samuel A. (See Standiford and Hyers.)						
Hyman, Sam L., Nashville, Tenn. Shirt	448,042	Mar. 10	1269	323	54	1365
Hyndman, Samuel E., Cincinnati, Ohio. Bottle-case	446,349	Feb. 10	1395	340	54	789
Hynes, Martin, Hamilton, Minn. Railway-switch	446,750	Feb. 17	2021	504	54	925
Hynes, Martin, Hamilton Station, Minn. Railway-switch	463,579	Nov. 17	2165	571	57	987
Hylop, John, Jr., Abington, assignor to H. H. and G. O. Jenkins, Whitman, Mass. Machine for making shoe-shanks	460,813	Oct. 6	434	109	57	87
Ianenz, Emil. (See Mick, Kursteiner, and Ianenz.)						
Iddings, Nate. (See Jay and Iddings.)						
Ide, Albert L., Springfield, Ill. Valve for steam-engines	447,490	Mar. 3	375	92	54	1189
Ide, Albert L., Springfield, Ill. Insulating-cover for trolley or conducting wires for electric railways	453,326	June 2	228	60	55	1191
Ide, Ettie M., et al. (See Ide, Fred B., assignor.)						
Ide, Fred B., assignor to E. M. Ide, Troy, W. Griffin, West Troy, and N. D. Ide, Corinth, N. Y. Railway time-signal	449,584	Mar. 31	3760	944	54	1864
Ide, Frederick B., Troy, assignor to N. D. Ide, Corinth, N. Y. Chain-wrench	457,535	Aug. 11	1006	945	56	728
Ide, Nathan D. (See Ide, Frederick B., assignor.)						
Ideal Sanitary Company. (See Miller, Frank M., assignor.)						
Iden, Andrew J., Milwaukee, Wis. Bake-pan	445,996	Feb. 10	802	194	54	677
Iden, Charles W., New York, N. Y., assignor to Thermo-Electric Company, of West Virginia. Thermo-electric element	461,437	Oct. 20	1405	354	57	286
Identification Card Company. (See Pincus, Henry, assignor.)						
Identity Indicator Company. (See Goldbeck, Charles F., assignor.)						
Ideon, Francis S. (See Pratsch, John, assignor.)						
Ignatius, Charles, et al. (See Hofmann, Johann, assignor.)						
Igoe, John M., and E. D. Whipple, Creston, Iowa. Car-coupling	450,620	Apr. 21	1480	363	55	298
Ihne, Fredrick W., Kansas City, Mo. Making chrome-yellow	457,028	Aug. 4	144	.....	56	561
Ilg, John. (See Gorich, Ilg, and Cronin.)						
Iliffe, John A. (See Barton, Henry, assignor.)						
Iliffe, John A. (See Teague, Francis, assignor.)						
Illingworth, Harry I. (See Spaulding, Charles F., assignor.)						
Illinois Malleable Iron Company. (See Stockham, William H., assignor.)						
Illinois Steel Company. (See Pettigrew, Charles, assignor.)						
Illinois Steel Company. (See Pettigrew, Smith, and Treat, assignors.)						
Illinois Steel Company. (See Smith, Treat, and Pettigrew, assignors.)						
Illinois Steel Company. (See Treat, Francis H., assignor.)						
Illinois Steel Company. (See Treat, Smith, and Pettigrew, assignors.)						
Illinois Supply and Construction Company. (See Grath, Walter P., assignor.)						
Ilsey, Silas A. (See Mungiven, James M., assignor.)						
Imbs, Joseph, Paris, France. Ring-spinning machine	454,823	June 23	2511	646	55	1647
Imbt, William, Analomink, Pa. Furniture-caster	465,966	Dec. 29	3170	813	57	1778
Ingal, Joseph. (See Ingal, Robert and J.)						
Ingal, Robert and J. Chicago, Ill. Hook	446,946	Feb. 24	2353	585	54	997
Ingalls, Alfred, Archer City, Tex. Sash-balance	450,021	Apr. 7	552	137	55	107
Ingersoll, Harley, Lansing, Mich. Heating device	447,115	Feb. 24	2631	653	54	1050

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Ingersoll, Richmond H., Biddeford, Me. Machine for drawing in warp-threads.....	461,613	Oct. 20	1736	<div>426 427 428 429 430</div>	57	347
Ingersoll, Robert H., New York, N. Y. Pencil-compasses.....	463,901	Nov. 24	2679	698	57	1092
Ingersoll-Sergeant Rock Drill Company. (See Sergeant, Henry C., assignor.)						
Inglis, Andrew J., Milwaukee, Wis. Finger-bar.....	447,245	Feb. 24	2879	715	54	1096
Inglis, Charles A., Lancaster, Pa. Soap-dish and brush-holder for scrub-buckets.....	450,462	Apr. 14	1240	303	55	243
Inglis, Thomas, and W. Schiermann, Tyler, Tex. Automatic band-brake for railway-cars.....	445,181	Jan. 27	1941	501	54	403
Ingraham, Alexander, assignor to Smith & Richardson, Minneapolis, Minn. Roller-mill.....	453,812	June 9	994	258	55	1344
Ingraham, Arnold A., New York, N. Y. Circuit-connection for electric-car motors.....	455,019	June 30	2884	733	55	1725
Ingraham, Arthur J., et al. (See Grantland, Johu W., assignor.)						
Ingraham, Arthur J., Philadelphia, Pa. Can and spreading device.....	453,639	June 9	728	188	55	1294
Ingraham, Charles T., Dwight, assignor of one-half to S. W. Gammou, Chicago, Ill. Tool for dehorning calves.....	447,611	Mar. 3	554	137	54	1221
Ingraham, Thomas J., Hornellsville, N. Y. Wire fence.....	451,672	May 5	352	86	55	646
Ingraham, Thomas J., Hornellsville, N. Y. Fencing-strand.....	453,116	May 26	2707	682	55	1115
Ingram, Charles C., Little Rock, Ark. Cotton-press.....	452,438	May 19	1615	401	55	896
Ingram, George. (See Zimmerman and Ingram.)						
Ingram, James, Lawrence, Mass. Stop-motion for the feed-rolls of Garnett machine.....	451,234	Apr. 28	2488	<div>613 614</div>	55	506
Ingram, John H., et al. (See Hoss, Henry W., assignor.)						
Ingram, Rufus A., et al. (See Brooks, William J., assignor.)						
Ink, Theron H., St. Helena, assignor of one-half to W. A. McKenzie, Napa County, Cal. Wagon-tongue support.....	459,731	Sept. 15	1884	474	56	1445
Inman, George E., and J. Jacques, Worcester, Mass. Paper slitting and rewinding machine.....	465,575	Dec. 22	2520	642	57	1643
Innes, Robert H., El Paso, Tex. Dynamometer for locomotives.....	444,611	Jan. 13	987	256	54	204
Innes, William E. A., Pueblo, Colo. Copying device.....	448,346	Mar. 17	1781	450	54	1476
Innis, John A. (See Northrop, Elihu C., assignor.)						
Innocent, John. (See Hornsby, Innocent, and Smith.)						
Innocent, John. (See Hornsby, Innocent, Trolley, and Smith.)						
Insulte Manufacturing Company. (See Swan, Alfred, assignor.)						
Intelligent Can Company. (See Spear, Ephraim W., assignor.)						
Interior Conduit and Insulation Company. (See Denney, Harmer, assignor.)						
Interior Conduit and Insulation Company. (See Greenfield, Edwin T., assignor.)						
International Car Step Company. (See Freese, Claus, assignor.)						
International Electric Railway Company. (See Applegate, William H., assignor.)						
International Freezing and Refrigerating Machine Company. (See Erny, Jacob, assignor.)						
International Freezing and Refrigerating Machine Company of New Jersey. (See Erny, Subers, and Hoos, assignors.)						
International Gas and Fuel Company. (See Wright, Walter B., assignor.)						
International Oil and Refining Company of Michigan et al. (See Kendall, Edward D., assignor.)						
International Portelectric Company. (See Williams, John T., assignor.)						
International Postal Supply Company. (See Hey, George W., assignor.)						
Internationale Druckluft & Electricitäts Gesellschaft. (See Popp, Victor, assignor.)						
Ireland, A. Bertsell, assignor of one-half to E. L. Page, Greene, N. Y. Repeating spring air-gun.....	458,834	Sept. 1	443	107	56	1150
Ireland, David M., Detroit, Mich. Trap.....	451,973	May 12	817	208	55	741
Ireland, David M., Detroit, Mich. Back for metallic knobs.....	455,509	July 7	330	85	56	66
Ireland, George W. (See Mills, Gaspar B., assignor.)						
Ireland, William L., and P. R. Stanhope, Dumont, Colo. Ore crusher and sizer.....	449,096	Mar. 24	2947	747	54	1706
Irish, Joseph, Bridgeport, Conn. Embroidering-machine.....	456,573	July 28	2025	536	56	411
Irish, Joseph, and S. J. Briden, Bridgeport, Conn. Machine for punching Jacquard cards.....	453,170	May 26	2809	<div>704 705 706 707 708</div>	55	1130
Irish, William F., New York, N. Y., assignor of one-half to C. G. Perkins, Hartford, Conn. Cut-out.....	458,396	Aug. 25	2413	587	56	1011
Iron Clad Manufacturing Company. (See McIntire, William C., assignor.)						
Irons, Joseph, et al. (See Hoad, Joseph A., assignor.)						
Irons, Joseph W., Simons, Ohio. Cheese-rack.....	457,604	Aug. 11	1114	281	56	750
Irrgang, Max, Bowmanville, Ill. Wind-wheel.....	450,411	Apr. 14	1168	285	55	229
Irsch, Francis. (See De la Roche, Charles, assignor.)						
Irvin, Johnson, Rochester, Pa. Steering vessels by steam.....	454,909	June 30	2667	<div>682 683</div>	55	1683
Irvin, William C., Pontypool, Canada. Fastening for securing pulleys to shafts.....	458,580	Sept. 1	50	11	56	1075
Irvine, Benjamin, Beef Slough, Wis. Lever carpet-fastener.....	458,903	Sept. 1	558	135	56	1172
Irvine, Henry E. (See Elkins, William H., assignor.)						
Irvine, Louis C., et al. (See Hoffmann, William R., assignor.)						
Irvine, Robert. (See Banfield, George E., assignor.)						
Irving, Alexander B., Colorado Springs, Colo. Upright piano-forte.....	461,833	Oct. 27	2108	519	57	426
Irving, Frank K., New York, N. Y. Electric meter.....	451,125	Apr. 23	2235	566	55	468
Irwin, Charles W. (See Tinning, Frank T. and W. K. S., assignors.)						
Irwin, John P., Newark, Ohio. Gate.....	456,956	Aug. 4	56	13	56	543
Irwin, Samuel B., West Hebron, N. Y. Road-cart.....	449,121	Mar. 31	2994	<div>756 757</div>	54	1724
Irwin, William F. (See Sackett and Irwin.)						
Isaacs, Isaac A., New York, N. Y. Chase-lock.....	462,799	Nov. 10	916	239	57	737
Isaacs, Mo, New York, N. Y. Tag-fastener.....	447,688	Mar. 3	660	163	54	1243
Isackson, Norman, Marion, Idaho. Hay-fork.....	464,363	Dec. 1	561	<div>137 138</div>	57	1241
Isbell, Ceylon, and S. M. Gillett, Homer, N. Y.; said Gillett assignor of one-half to said Isbell. Ice-elevator.....	445,525	Jan. 27	2441	636	54	500
Isbell, Enoch B., Paris, Tenn. Dough-board.....	445,019	Jan. 20	1676	431	54	343
Iseminger, Daniel H., Bloomington, Ill. Gate.....	457,722	Aug. 11	1290	336	56	783
Iseminger, Daniel H., Bloomington, Ill. Gate.....	463,665	Nov. 24	2313	607	57	1023
Ish, James T., San Francisco, Cal. Fruit-pitting machine.....	445,753	Feb. 3	390	<div>99 100</div>	54	590
Ish, James T., assignor to J. L. Mosher, T. H. Chandler, and J. B. Robinson, San Francisco, Cal. Fruit-grading machine.....	458,422	Aug. 25	2147	595	56	1018

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Ish, John L., assignor of one-half to P. Munroe, Rand, Colo. Machine for cutting sage-brush	452,544	May 19	1786	{ 449 450	55	926
Isherwood, Alfred, New Bedford, Mass. Loom-shuttle	461,150	Oct. 13	919	238	57	184
Iske, Albert. (See Iske, Anthony and A.)						
Iske, Albert, assignor, by mesne assignments, to Self Acting Bell Company, Lancaster, Pa. Device for operating door-bells	448,043	Mar. 10	1270	324	54	1365
Iske, Albert, assignor, by mesne assignments, to Self Acting Bell Company, Lancaster, Pa. Combined push and pull	448,044	Mar. 10	1271	324	54	1366
Iske, Albert, assignor, by mesne assignments, to Self Acting Bell Company, Lancaster, Pa. Trip for door-bells and burglar-alarms	448,045	Mar. 10	1272	324	54	1366
Iske, Anthony, Lancaster, Pa. Combined knife and burglar-alarm	455,797	July 14	821	214	56	167
Iske, Anthony, Lancaster, Pa. Egg-holder	463,604	Nov. 17	2210	582	57	995
Iske, Anthony, Lancaster, Pa. Sieve	463,801	Nov. 24	2513	657	57	1061
Iske, Anthony, assignor of one-half to D. F. Buchmiller, Lancaster, Pa. Cash-carrier apparatus	447,828	Mar. 10	911	227	54	1297
Iske, Anthony and A., Lancaster, Pa. Latch	455,334	July 7	46	14	56	12
Iske, Anthony and A., Lancaster, Pa. Window-sash	462,488	Nov. 3	420	{ 102 103	57	630
Islu, John A., Newport News, Va. Clamp for holding chisels	447,776	Mar. 10	817	203	54	1280
Ivers & Pond Piano Company. (See Ivers, William H., assignor.)						
Ivers, William H., Dedham, assignor to Ivers & Pond Piano Company, Boston, Mass. Agraffe for piano-fortes	448,046	Mar. 10	1273	325	54	1366
Ivers, William H., Dedham, assignor to Ivers & Pond Piano Company, Boston, Mass. Boxing-binnacle for packing furniture	462,257	Nov. 3	55	14	57	562
Ivers, William H., Dedham, assignor to Ivers & Pond Piano Company, Boston, Mass. Piano tuning-pin	463,729	Nov. 24	2418	634	57	1042
Iverson, John M., Worthing, S. D. Wrench	465,272	Dec. 15	2016	515	57	1537
Iverson, John M., Worthing, S. D. Clevis	465,273	Dec. 15	2017	515	57	1537
Ives, Almon K., Chicago, Ill. Inhaler	464,969	Dec. 15	1488	374	57	1439
Ives, Blakeslee & Williams Company. (See Ives and Hotchkiss, assignors.)						
Ives, Charles D., T. H. Simmons, and R. G. Baldwin, Cedar Rapids, Iowa. Seal	452,050	May 12	956	244	55	766
Ives, Charles H., Sterling, Ill. Fire-ladder	447,429	Mar. 3	256	64	54	1166
Ives, Charles H., Little Falls, N. Y. Car-door lock	460,798	Oct. 6	415	102	57	82
Ives, Edward R., Bridgeport, Conn. Toy fire-engine house	454,651	June 23	2243	576	55	1596
Ives, Edward R., and C. A. Hotchkiss, Bridgeport, Conn., assignors to Ives, Blakeslee & Williams Company, New York, N. Y. Registering toy money-bank	445,754	Feb. 3	393	100	54	591
Ives, George H., Mystic, Conn. Nut-lock	464,303	Dec. 1	476	114	57	1225
Ives, Hubert R. (See Wynne, John H., assignor.)						
Ivory, James W., Philadelphia, Pa. Dental nerve-brooch	444,383	Jan. 6	695	162	54	123
Ivory, James W., Philadelphia, Pa. Teeth-separator	450,825	Apr. 21	1833	445	55	371
J. A. Fay & Company. (See Passel and Sofge, assignors.)						
J. & E. Stevens Company. (See Frisbie, Russel, assignor.)						
J. Hoyt Brown Automatic Car-Coupler and Railroad Supply Company. (See Brown, James H., assignor.)						
J. I. Case Plow Works. (See Sobey, William, assignor.)						
J. I. Case Threshing Machine Company. (See Cunningham, James F., Sr., assignor)						
J. L. Mott Iron Works. (See Bogert, Charles J., assignor.)						
J. W. Sefton Manufacturing Company. (See Hicks, Oliver H., assignor.)						
Jaccard, Jules. (See Junod, Jaccard, and Calame-Jaccard.)						
Jaccard-Margot, Emile, St. Croix, Switzerland. Music-box	460,253	Sept. 29	2679	667	56	1611
Jack, Thomas B. (See Rowe and Jack.)						
Jack, Thomas B., Braceville, Ill. Car-brake	453,482	June 2	482	124	55	1239
Jacker, Maximilian, Chicago, Ill. Steam-engine valve mechanism	465,576	Dec. 22	2523	643	57	1643
Jackman, Daniel H., Chicago, Ill. Tire-gage	451,053	Apr. 28	2188	540	55	448
Jackman, Stephen E., Haverhill, Mass., assignor to himself, O. D. Bond, A. H. and H. L. Andrews, Chicago, Ill. Power and gravity railway	452,791	May 26	2177	{ 545 546	55	1012
Jackson, Aaron E., Wesley, Ill. Soil-pulverizer	463,628	Nov. 24	2259	595	57	1013
Jackson, Amariah W., Chicago, Ill. Air-brake hose-coupling. (Reissue)	11,141	Jan. 27	2446	637	54	502
Jackson, Amos H., Fremont, Ohio. Mop-holder	457,425	Aug. 11	832	215	56	695
Jackson, Andrew V., Palestine, Ark. Well-sinking machinery	454,870	June 30	2590	665	55	1669
Jackson, Austin F., assignor to Reed & Barton Corporation, Taunton, Mass. Orange-spoon	457,723	Aug. 11	1291	336	56	784
Jackson, Austin F., and J. Hewitson, assignors to Reed & Barton Corporation, Taunton, Mass. Apparatus for shaping and ornamenting hollow articles of metal	454,592	June 23	2138	551	55	1578
Jackson, Austin F., and J. Hewitson, assignors to Reed & Barton Corporation, Taunton, Mass. Device for ornamenting metals	463,991	Nov. 24	2826	733	57	1120
Jackson, Calvin, Jacksonwald, Pa. Ballot-box	448,524	Mar. 17	2047	{ 512 513	54	1526
Jackson, Charles, Birmingham, England. Fastening to be used as sleeve-links, &c.	459,469	Sept. 15	1457	{ 366 367	56	1364
Jackson, Charles S., et al. (See Smith, George A., assignor.)						
Jackson & Co., William H. (See Burkhardt, John, assignor.)						
Jackson, Edward S., Newark, N. J. Spool-holder	448,799	Mar. 24	2499	626	54	1620
Jackson, Ezra W., assignor of seven-twentieths to M. L. Mills and H. Jackson, Chicago, Ill. Automatic safety-gate	463,194	Nov. 17	1551	404	57	868
Jackson (Foreign Patents) Company, Limited. (See Jackson, John, assignor.)						
Jackson, George F. (See Moyer and Jackson.)						
Jackson, George F. (See Searles, Jackson, and Gustin.)						
Jackson, Henry, et al. (See Jackson, Ezra W., assignor.)						
Jackson, Isaac, Glossop, England. Belt-fastener	465,995	Dec. 29	3205	817	57	1784
Jackson, James E., Greenville, Pa., assignor to J. C. Compton and J. A. Osborne, Cleveland, Ohio. Puzzle	449,881	Apr. 7	354	90	55	79
Jackson, James O., and N. Macbeth, Bolton, England. Indicating-valve	453,274	June 2	147	41	55	1176
Jackson, John, Liverpool, assignor to Jackson (Foreign Patents) Company, Limited, London, England. Steam-generator	455,622	July 7	523	137	56	101
Jackson, John, Liverpool, assignor to Jackson (Foreign Patents) Company, Limited, London, England. Steam generator	455,623	July 7	526	138	56	101
Jackson, John, Liverpool, assignor to Jackson (Foreign Patents) Company, Limited, London, England. Steam-generator	462,557	Nov. 3	533	130	57	653
Jackson, John B., et al. (See Macnarey, John, assignor.)						
Jackson, John D., Bay City, Mich. Game apparatus	454,358	June 16	1762	458	55	1500
Jackson, John H. (See Jackson, Mark A. and J. H.)						
Jackson, John T. (See Springer and Jackson.)						
Jackson, Johnson A. (See Hannals, Fred C., assignor.)						
Jackson, Joseph B. (See Carr, Habn, and Jackson.)						
Jackson, Joseph R., Pittsburg, and C. Carlson, McKeesport, Pa. Method of and apparatus for making tubing	459,752	Sept. 22	1919	{ 483 484	56	1459

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Jackson, Julius M. (See Patterson, James, assignor.)						
Jackson, Luther C., Wolfe City, and J. F. Reiger, Dallas, Tex. Sulky-plow	464,635	Dec. 8	960	238	57	1328
Jackson, Manetho C., Denver, Colo. Baling-press	447,950	Mar. 10	1113	279 280	54	1336
Jackson, Mark A. and J. H., Philadelphia, Pa. Roofing-tile fastening	464,503	Dec. 8	762	186	57	1289
Jackson, Milton, Philadelphia, Pa. Post-office lock-box	449,936	Apr. 7	434	109	55	85
Jackson, Milton, Philadelphia, Pa. Padlock	451,156	Apr. 28	2345	582	55	480
Jackson, Milton, Philadelphia, Pa. Padlock	464,326	Dec. 1	508	121	57	1230
Jackson, Peter H., San Francisco, Cal. Lengthening metallic beams	444,578	Jan. 13	945	245	54	196
Jackson, Peter H., San Francisco, Cal. Lengthening metallic beams and girders	444,579	Jan. 13	946	245	54	196
Jackson, Peter H., San Francisco, Cal. Lous for illuminating-tiles	446,350	Feb. 10	1396	341	54	789
Jackson, Peter H., San Francisco, Cal. Construction of buildings	449,323	Mar. 31	3333	841	54	1784
Jackson, Peter H., San Francisco, Cal. Construction of floors or walls	462,437	Nov. 3	352	87	57	617
Jackson, Peter H., San Francisco, Cal. Damp-proof and water-tight cellar	462,953	Nov. 10	1172	304	57	786
Jackson, Powell. (See Hurst, Alfred F., assignor.)						
Jackson, Roger C. (See Walker, Joseph, assignor.)						
Jackson, Sidney D. L., Youngstown, Ohio. Advertising device	453,190	June 2	19	6	55	1152
Jackson, Spencer. (See Plumridge and Jackson.)						
Jackson, Uriah S., Ossipee, N. H., assignor of one-half to H. F. Cady, Lowell, Mass. Electric signal for railways	451,157	Apr. 28	2346	582	55	490
Jackson, Wallace E., Waterbury, Conn. Button	452,045	May 12	951	242	55	765
Jackson, Wallace E., Waterbury, Conn. Button	455,061	Dec. 15	1664	423	57	1471
Jackson, William, assignor to J. M. Porter, R. W. Miller, R. S. Stephenson, and J. A. McCord, Allegheny, Pa. Jack	449,937	Apr. 7	436	109	55	85
Jackson, William E., Jr., Augusta, Ga. Trolley-guide	450,489	Apr. 14	1282	314	55	251
Jacob Frères & Co. (See Delafor, Maurice, assignor.)						
Jacobs, C. F. (See Sallberg, Magnus, assignor.)						
Jacobs, Charles A., Hallowell, Me. Wire-hanger	463,756	Nov. 24	2455	642	57	1049
Jacobs, Charles F., Chicago, Ill. Bicycle-tire	456,702	July 28	2241	594	56	453
Jacobs, Comodore P., Aurora, Nebr. Car-coupling	444,493	Jan. 13	812	211	54	170
Jacobs, Edward. (See Hay, Gilbert, assignor.)						
Jacobs, Esther. (See Jacobs, Maurice, assignor.)						
Jacobs, George B., Parral, Mexico. Cartridge-loader	454,578	June 23	2106	544 545	55	1572
Jacobs, George H., et al. (See Staples, John A., assignor.)						
Jacobs, George T. (See Ford and Jacobs.)						
Jacobs, Gilbert E., et al. (See Staples, John A., assignor.)						
Jacobs, Henry E., Milwaukee, Wis., assignor to F. G. Bigelow, M. H. Brand, and G. Knowles, Jr. Electric fire-alarm system	466,306	Dec. 29	3689	942 112	57	1877
Jacobs, Jacob, New York, N. Y. Illuminating-tile	458,449	Sept. 1	469	113	56	1155
Jacobs, Jacob, New York, N. Y. Illuminating-tile	458,850	Sept. 1	470	113	56	1155
Jacobs, Julius, et al. (See Lang, Gustav, assignor.)						
Jacobs, Kenneth W., Milwaukee, Wis. Croze	459,457	Sept. 15	1440	362	56	1362
Jacobs, Marlon, Chicago, Ill. Elevated railway	448,571	Mar. 17	2118	530	54	1539
Jacobs, Mark, New York, N. Y. Automatic feed attachment for presses	452,904	Sept. 1	559	136	56	1172
Jacobs, Maurice, New York, N. Y. Key-gage	466,044	Dec. 29	3387	838	57	1800
Jacobs, Maurice, assignor to E. Jacobs, New York, N. Y. Lock	449,077	Mar. 24	2916	740	54	1700
Jacobs, Theodore, Chicago, Ill. Steam-pipe sleeve	446,685	Feb. 17	1922	479	54	904
Jacobson, Abraham. (See Lamboly and Jacobson.)						
Jacobson, John, Boston, Mass. Making watch-dials	444,894	Jan. 20	1472	381	54	304
Jacobson, John, assignor to E. P. Howe, Boston, Mass. Mirror and making the same	465,996	Dec. 29	3207	817	57	1784
Jacobson, Solomon. (See Goldee, Charles, assignor.)						
Jacobus, Jacob R., assignor of one-half to J. Lippe, St. Louis, Mo. Refuse-burning attachment for outhouses	464,251	Dec. 1	388	93	57	1208
Jacoby, Augusta, Laughorne, Pa. Sad-iron heater	444,584	Jan. 13	952	247	54	197
Jacoby, William, assignor of one-half to L. O. Bathen, Fulda, and L. Coburn, Belfast, Minn. Hammer for driving	464,217	Dec. 1	331	81	57	1196
Jacoby, William H., Minneapolis, Minn. Billiard-cue-tip fastener	452,014	May 12	883	226	55	754
Jacot, Charles H., Stapleton, assignor to Jacot & Son, New York, N. Y. Music-box damper	461,633	Oct. 20	1779	438	57	354
Jacot & Son. (See Jacot, Charles H., assignor.)						
Jacques, John. (See Inman and Jacques.)						
Jacques, William W., Newton, assignor to American Bell Telephone Company, Boston, Mass. Multiplex telephony	449,679	Apr. 7	49	12	55	11
Jacques, William W., Newton, assignor to American Bell Telephone Company, Boston, Mass. Telephone circuit	453,483	June 2	482	125	55	1239
Jacquet, Frank G. M. (See Kern, Bernard, Jr., assignor.)						
Jaack, Emile, Brooklyn, N. Y. Embossing-machine	456,724	July 28	2275	603	56	460
Jaeger, Henry. (See Smith, Edward G., assignor.)						
Jaehnic, Charles H., Eagle Pass, Tex. Newspaper-file	461,438	Oct. 20	1405	355	57	286
Jaehnic, Ferdinand F. G., Johnson's Creek, Wis. Cutter-bar	458,629	Sept. 1	127	28	56	1091
Jaenicke, Adolph, Davenport, Iowa. Cigar-mold	445,997	Feb. 10	803	194	54	677
Jaenicke, Adolph, Davenport, Iowa. Cigar-mold	445,998	Feb. 10	804	195	54	677
Jager, Simon de, and A. Zoutman, Denver, Colo. System of electrical signaling for railways	460,779	Oct. 6	390	95	57	76
Jagger, Eli, Oldham, England. Portable apparatus for placing cop-tubes upon the spindles of mules, &c	459,975	Sept. 22	2260	567	56	1523
Jahn, Frederick G., New York, N. Y. Automatic sprinkler-head	461,634	Oct. 20	1780	438	57	354
Jahr, Bernhard F. E., Milwaukee, Wis., and R. H. Boecher, Chicago, Ill. Educational appliance	445,782	Feb. 3	442	110	54	598
Jahr, Bernhard F. E., and H. L. Wedekind, Milwaukee, Wis. Slate	463,837	Nov. 24	2569	669	57	1073
Jakobson, Karl A., Christiania, assignor to himself and T. Røstad, Moss, Norway. Lubricator	459,349	Sept. 8	1260	310	56	1318
James, Charles W., Philadelphia, Pa. Measuring and drawing instrument	453,906	June 9	1109	290	55	1366
James, Christopher R., Jersey City, N. J. Air-brake	447,236	Feb. 24	2866	711 712	54	1094
James, Christopher R., Jersey City, N. J. Air-brake	461,243	Oct. 13	1088	276	57	217
James Cunningham Son & Company. (See Clements, Thomas, assignor.)						
James, David B., San Francisco, Cal. Blasting-fuse	446,919	Feb. 24	2316	575	54	990
James, David B., San Francisco, Cal. Car-axle box	453,117	May 26	2707	682	55	1115
James, David B., San Francisco, Cal. Quartz-mill	458,170	Aug. 25	2023	525	56	939
James, E. C., et al. (See Nickum, George S., assignor.)						
James, Edward. (See Harding and James.)						
James, Edward B., Thomasville, Ga. Plow	453,191	June 2	20	6	55	1152

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James, George B. (See Richards, Walter S., assignor.)						
James, Harry. (See Gillespie and James.)						
James, Jack W., Cuba, Tenn. Mowing-machine	445,894	Feb. 3	621	{ 152 153 131	{ 54	634
James, Jack W., Cuba, Tenn. Mowing-machine	462,558	Nov. 3	534	{ 130 131 458	{ 57	653
James, Jacob, New Castle, Pa. Heating, puddling, or boiler furnace	454,359	June 16	1764	{ 458 191 482	{ 55	1500
James, John, Alvord, Tex. Wagon-top	450,158	Apr. 14	755	191	55	153
James, John, Rock Vale, Colo. Hollow axle	458,056	Aug. 18	1846	482	56	898
James Leffel & Company. (See Bookwalter, Francis M., assignor.)						
James Leffel & Company. (See Bookwalter, John W. and F. M., assignors.)						
James Leffel & Company. (See Tyler, William W., assignor.)						
James, Leroy, Maroa, Ill. Fence	463,951	Nov. 24	2761	716	57	1108
James, Robert, Russellville, Ky. Saw-set	459,548	Sept. 15	1586	397	56	1389
James, Samuel, and J. K. Sanders, Lebanon, Mo. Spindle-driving device for spinning-machines	446,751	Feb. 17	2022	505	54	925
James Smith Woolen Machinery Company. (See Moulton, Hamilton L., assignor.)						
James, Thomas, Braddock, Pa. Crane	453,006	May 26	2527	640	55	1079
James, Thomas, Braddock, Pa. Apparatus for rotating cranes	453,007	May 26	2527	640	55	1079
James, Will S., Fort Worth, Tex. Sash-fastener	461,020	Oct. 13	742	191	57	151
James, Willard C., Boston, Mass. Scale-beam for weighing scales	463,195	Nov. 17	1552	404	57	869
James, Willard G. (See Lynch, George D., assignor.)						
James, William A., assignor to himself and W. H. O'Brien, Chicago, Ill. Skate	463,666	Nov. 24	2314	607	57	1023
James, William A., assignor to himself and W. H. O'Brien, Chicago, Ill. Dividers	465,111	Dec. 15	1759	444	57	1489
Jameson, Alexander. (See McKinnan and Jameson.)						
Jameson, Jacob S., et al. (See White, Patrick F., assignor.)						
Jamison, Samuel W., Boston, Mass., assignor to S. W. Jamison Boot and Shoe Crimping Machine Company, New York, N. Y. Leather-crimping machine	457,200	Aug. 4	422	{ 109 110	{ 56	612
Jamison, Thomas W., assignor of one-half to T. H. Walton, Salishury, Mo. Velocipede	447,246	Feb. 24	2880	715	54	1097
Jandus, William, Cleveland, Ohio. Electric-arc lamp	463,154	Nov. 17	1486	386	57	856
Janiot, Alexandrine. (See Niel and Janiot.)						
Janner, George C., Springfield, Ohio. Crushing and grinding mill	465,667	Dec. 22	2663	679	57	1670
Jansen, Harald. (See Alfson and Jansen.)						
Jantz, Gustav H., Cincinnati, Ohio. Lever	445,558	Feb. 3	49	13	54	521
Jantz, Gustav H., Cincinnati, Ohio. Washing-machine	448,654	Mar. 24	2270	569	54	1575
Jaquet, Julius F., Milwaukee, Wis., and W. McAuslan, Brooklyn, N. Y. Sidewalk	446,752	Feb. 17	2024	505	54	925
Jarboe, Walter S., et al. (See Seibert, William P., assignor.)						
Jarboe, Walter S., Allegheny, assignor to Pittsburg Mop Wringer Company, Pittsburg, Pa. Mop-wringer	447,732	Mar. 3	728	182	54	1255
Jarboe, Walter S., W. P. Seibert, and J. White, Allegheny, Pa. Span-wire insulator	456,574	July 28	2027	537	56	412
Jarden, Milo F., Selkirk, Canada. Boot	444,703	Jan. 13	1125	290	54	230
Jardine, John, Motherwell, county of Lanark, Scotland. Rolling-mill	451,934	May 12	760	192	55	729
Jardine, Joseph B., San Francisco, Cal. Steering apparatus	444,580	Jan. 13	948	{ 245 246	{ 54	196
Jarrell, Edwin, assignor of three-fourths to H. W. McMunn, Harper, Kans. Vehicle-spring	455,335	July 7	47	14	56	12
Jarvis, Alford E., Chicago, Ill. Producing human hair scenery and ornaments	452,522	May 19	1754	441	55	921
Jarvis, John C. B., Tayport, Scotland. Rigging-tackle for ships	465,857	Dec. 29	2952	754	57	1736
Jarvis, Walter C., Kansas City, Mo. Switch for overhead railways for dressed meats	445,060	Jan. 20	1747	450	54	357
Jarvis, Walter C., Kansas City, Mo. Shutter-operating device	453,640	June 9	729	188	55	1294
Jarvis, William G., Piqua, Ohio. Fastener for furniture	447,829	Mar. 10	912	227	54	1297
Jaster, Frank. (See Weishan and Jaster.)						
Jaster, Frank. (See Weishan, Jaster, and Bohmann.)						
Jatho, Adam, Victoria, Tex. Mosquito-canopy frame	447,878	Mar. 10	996	251	54	1313
Jauch, Joseph, assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Lamp shade holder	452,573	May 19	1829	459	55	934
Jay, John, and N. Iddings, Pleasant Hill, Ohio. Planter	461,614	Oct. 20	1746	430	57	348
Jayne, Alice M., Bradford, Pa. Drain for dishes	463,056	Nov. 10	1321	342	57	817
Jaynes, Albert L., Merna, Nebr. Car-coupling	451,593	May 5	226	53	55	622
Jeançon, John A., Newport, Ky. Aluminum alloy	446,351	Feb. 10	1397	54	54	789
Jeanjaquet, Engène, Detroit, Mich. Vaginal syringe	458,022	Aug. 18	1797	469	56	887
Jeans, William F., Woodland, Cal. Sack-holder	463,354	Nov. 17	1810	473	57	917
Jearles, Charles T., Binghamton, N. Y. Till-lock	448,962	Mar. 24	2745	{ 692 693	{ 54	1667
Jeavons, William R. (See Lannert and Jeavons.)						
Jeavons, William R., Cleveland, Ohio. Hydrocarbon-burner	463,629	Nov. 24	2260	595	57	1014
Jeavons, William R., and J. A. Lannert, Cleveland, Ohio. Vapor-burner	461,219	Oct. 13	1053	266	57	209
Jeeves, Edward H., et al. (See Gillmore, Harmon, assignor.)						
Jeeves, Edward H., Port Rowan, Canada. Tube-scraper	464,756	Dec. 8	1163	{ 289 290	{ 57	1365
Jefferies, Daniel P., and A. W. Grant, Springfield, Ohio. Rubber tire for wheels	449,650	Mar. 31	3883	971	54	1887
Jefferis, Richard W., assignor of three-fourths to W. H. Magoffin and E. E. Brown, Philadelphia, Pa. Tool-handle	453,595	June 2	650	167	55	1271
Jefferis, Harry I., assignor of one-half to S. D. Givin, Lexington, Miss. Railway-tie	445,274	Jan. 27	2084	538	54	431
Jefferis, Harry I., assignor of one-half to S. D. Givin, Lexington, Miss. Railway-tie	445,275	Jan. 27	2085	538	54	431
Jefferson, Charles B., assignor of one-half to M. Klaw and A. L. Erlanger, New York, N. Y. Stage and scenic effect for dramatic representations, &c	465,044	Dec. 15	1633	{ 415 416	{ 57	1466
Jefferson, Ira A., Park City, Utah Ter. Wind-engine	464,364	Dec. 1	563	138	57	1241
Jefferson, James H. (See Edwards, Charles M., assignor.)						
Jefferson, Rollin, Columbus, Ga. Plow-fender	458,659	Sept. 1	176	41	56	1099
Jeffery, Alfred, Philadelphia, Pa. Pencil-case	460,971	Oct. 13	671	173	57	138
Jeffery, Benjamin W., East Orange, and G. F. Giering, assignors of one-half to A. Milne, Newark, N. J. Fare-register	459,895	Sept. 22	2146	{ 539 540	{ 56	1503
Jeffery, Dennis, assignor of one-half to G. G. Turri, Melbourne, Victoria. Carriage	465,799	Dec. 22	2448	730	57	1708
Jeffery, John, Sr. (See Priestley, John H., assignor.)						
Jeffery, Richard E., Grass Valley, Cal. Vehicle-wheel	446,559	Feb. 17	1733	{ 425 426	{ 54	869
Jeffery, Thomas B., Chicago, Ill. Wheel-tire	444,069	Jan. 6	142	35	54	31
Jeffery, Thomas B., Chicago, Ill. Velocipede	448,655	Mar. 24	2271	569	54	1575
Jeffery, Thomas B., Chicago, Ill. Velocipede	449,220	Mar. 31	3145	793	54	1751
Jeffery, Thomas B., Chicago, Ill. Wheel-tire	454,115	June 16	1402	366	55	1430
Jeffery, Thomas B., Chicago, Ill. Vehicle-lantern	454,177	June 16	1486	390	55	1447
Jeffery, Thomas B., Chicago, Ill. Velocipede	460,641	Oct. 6	173	44	57	36

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Jeffery, Thomas B., Ravenswood, Ill. Velocipede-saddle	454,172	June 16	1488	390	55	1447
Jeffreys, John C. W., and G. Dickman, London, England, assignors to G. W. Mabie, Brooklyn, N. Y. Suspension device for pencil-cases, &c.	447,879	Mar. 10	997	251	54	1313
Jeffreys, Lemuel A. (See Williams, Henry B., assignor.)						
Jenkins, Arthur M., et al. (See Jenkins, Sylvester, assignor.)						
Jenkins, Dula S., Las Animas, Colo. Tail-piece for violins	462,383	Nov. 3	266	65	57	601
Jenkins, Frank W., Brooklyn, N. Y. Candlestick	458,367	Aug. 25	2365	577	56	1002
Jenkins, George O., et al. (See Hyslop, John, Jr., assignor.)						
Jenkins, H. C. (See Nugent, Richard C., assignor.)						
Jenkins, Henry C. (See Higgins and Jenkins.)						
Jenkins, Hiram H., et al. (See Hyslop, John, Jr., assignor.)						
Jenkins, James. (See Nugent, Richard C., assignor.)						
Jenkins, James H., et al. (See Scott, James T., assignor.)						
Jenkins, Maury D. (See Nugent, Richard C., assignor.)						
Jenkins, Maury D., et al. (See Weitmyer, William F., assignor.)						
Jenkins, Samuel, Auburn, Me. Pie-ventilator	451,382	Apr. 28	2703	671	55	548
Jenkins, Sylvester, assignor of two-thirds to W. E. Doan, Jr., Lansdale, and A. M. Jenkins, Norristown, Pa. Apparatus for delivering liquids	449,778	Apr. 7	205	53	55	42
Jenkins, William E., Rock Hill, S. C. Safety-catch for hammerless guns	465,764	Dec. 22	2804	718	57	1698
Jenkins, William H., Girard, Ill. Fence-making machine	444,752	Jan. 13	1210	314 315 115	54	245
Jenkins, William P., and F. X. Mudd, assignors to Live Poultry Transportation Company, Chicago, Ill. Poultry-car	444,266	Jan. 6	456	116	54	90
Jenks, Henry F. (See Barden, John S., assignor.)						
Jenks, Stephen A., Lincoln, R. I. Locking-bar for spindles on spindle-rails	461,199	Oct. 13	1010	257	57	200
Jenne, Chancy R., Fort Wayne, Ind. Enlarging-camera	463,630	Nov. 24	2261	595 596	57	1014
Jenne, Elmer E., Ilion, N. Y. Puzzle	456,826	July 28	2451	645	56	492
Jenne, Henry S., Wells, Minn., assignor to E. P. Woods and C. H. Latham, Lowell, Mass. Toaster	462,048	Oct. 27	2436	604	57	489
Jenne, William M., Ilion, assignor to Remington Standard Typewriter Manufacturing Company, New York, N. Y. Type-writing machine	462,947	Nov. 10	1165	302	57	784
Jenne, William M., Ilion, assignor to Standard Typewriter Manufacturing Company, New York, N. Y. Type-writing machine	464,436	Dec. 1	658	161 162	57	1260
Jenner, Frederick, Yeovil, England, assignor to E. J. Lucas and H. Jenner, Johnstown, N. Y. Shoe-fastening	446,779	Feb. 17	2058	513	54	933
Jenner, Harry, et al. (See Jenner, Frederick, assignor.)						
Jenner, Herbert W. T. (See Barnes, Edward, assignor.)						
Jenness, Charles L. (See Avery, Frederick C., assignor.)						
Jenness, George A. (See Andrews and Jenness.)						
Jenney, Charles D., assignor to Jenney Electric Motor Company, Indianapolis, Ind. Rheostat	452,574	May 19	1830	459 460	55	935
Jenney Electric Motor Company. (See Jenney, Charles D., assignor.)						
Jennings, Byron, San José, assignor of one-half to J. Brusie, Oakland, Cal. Tension and cut-out device for electric railways	451,326	Apr. 28	2630	650	55	534
Jennings, Byron, San José, assignor of one-half to J. Brusie, Oakland, Cal. Electric insulator	452,523	May 19	1756	441	55	921
Jennings, Byron, San José, assignor of one-half to J. Brusie, Oakland, Cal. Insulator-holder for electric railways	452,645	May 19	1943	487	55	958
Jennings, Charles E., and P. H. Mueller, Lewisburg, Pa. Spittoon carrier and washer	465,781	Dec. 22	2827	724	57	1703
Jennings, Charles P., Bradford, Pa. Expansion-drill or boring-tool	457,536	Aug. 11	1007	257 258	56	728
Jennings & Co. (See Jennings, Owen, assignor.)						
Jennings, Curtis M., St. Louis, Mo. Car-roof	446,780	Feb. 17	2059	513	54	933
Jennings, Franklin A. (See St. John and Jennings.)						
Jennings, John, New London, Conn. Lathe	452,524	May 19	1758	442	55	921
Jennings, Owen, assignor to Jennings & Co., Homer, La. Basket	445,783	Feb. 3	443	110	54	598
Jennings, Theodore H., and J. K. Fagan, St. Paul, Minn. Fire-escape	450,621	Apr. 21	1481	363 364	55	229
Jennison, N. Edward. (See Henson, Joseph W., assignor.)						
Jensen Can Filling Machine Company. (See Jensen, Mathias, assignor.)						
Jensen, Mathias, assignor of one-half to Jensen Can Filling Machine Company, Astoria, Oreg. Can-capping machine	448,047	Mar. 10	1274	325	54	1367
Jensen, Nicholas, Washington, D. C. Seconds-hand device for stem-setting watches	458,459	Aug. 25	2498	608	56	1027
Jensen, Nicholas, Washington, D. C. Stop-watch	458,460	Aug. 25	2500	608	56	1028
Jeppesen, Christian J., Chicago, Ill. Centrifugal machine	456,654	July 28	2165	574	56	439
Jeppen, Elisabeth E., Flensburg, Germany. Speed-governor	456,893	July 28	2564	674	56	511
Jernberg, Gustaf, Rockford, Ill. Mower	447,328	Mar. 3	72	20	54	1132
Jerome, Charles C., Chicago, Ill. Piston-rod packing	454,740	June 23	2373	609 610	55	1623
Jerome, Charles C., Chicago, Ill. Piston-rod packing	464,711	Dec. 8	1095	271 272	57	1353
Jerome, Charles C., Chicago, Ill. Rod-packing	465,858	Dec. 29	2953	754	57	1737
Jerome, Samuel B., New York, N. Y. Pavement	445,114	Jan. 20	1825	472	54	371
Jerram, Frederic O., Liverpool, England. Duplex-needle sewing-machine	451,383	Apr. 28	2704	671	55	548
Jeshurun, George. (See Allgoever, Augustus, assignor.)						
Jesson, John B., Camden, N. J. Umbrella-runner retainer	458,851	Sept. 1	471	113	56	1156
Jesson, John B., Camden, N. J., and J. K. Weed, assignors of one-third to L. E. Laid, Philadelphia, Pa. Machine for slotting and boring umbrella or other sticks	445,145	Jan. 20	1880	485 486	54	383
Jessup, John C., Dighton, Mass., assignor to Mason, Chapin & Co., Providence, R. I. Making paris-green	451,487	May 5	66		55	592
Jester, Herbert H., Boulder, Colo. Staple	446,523	Feb. 17	1678	409	54	858
Jewell, Albert L. (See Hewett, Ernest M. G., assignor.)						
Jewell, Ammi M., San Francisco, Cal. Boring-machine	446,352	Feb. 10	1398	341 342	54	789
Jewell, Ammi M., San Francisco, Cal. Boring-machine	446,353	Feb. 10	1399	342	54	789
Jewell, Ammi M., deceased, San Francisco, Cal.; E. C. Flagg administrator. Boring-machine	451,594	May 5	227	53, 54	55	622
Jewell, Ammi M., deceased, San Francisco, Cal.; E. C. Flagg administrator. Boring-machine	451,595	May 5	228	54, 55	55	622
Jewell, Edward, et al. (See Mitchell, Willis, assignor.)						
Jewell, Harvey L., Bangor, Me. Lantern	458,341	Aug. 25	2318	566	56	994
Jewell, Ira H. and W. M., Chicago, Ill. Artificial-ice skating-rink	462,316	Nov. 3	158	40	57	581
Jewell, John A., assignor of one-half to J. E. Beardsley, Washington, D. C. Brake-block	448,720	Mar. 24	2380	597	54	1597

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Jewell, Major R., Rochester, N. Y., assignor to Office Specialty Manufacturing Company, of New York. Letter-file.	455,596	July 7	484	{ 125 126 }	56	93
Jewell, Omar H. (See Jewell, William M. and O. H.)						
Jewell, Omar H., Chicago, Ill. Apparatus for filtering sirups.	445,371	Jan. 27	2215	574	54	458
Jewell, Omar H., Chicago, Ill. Filter.	463,757	Nov. 24	2456	642	57	1050
Jewell, Omar H., and W. M., Chicago, Ill. Filter.	458,368	Aug. 25	2366	577	56	1002
Jewell, Robert, Battersea Park, England. Registering mechanism or counter actuated by electric currents.	444,358	Jan. 6	585	151	54	116
Jewell, Robert, London, England. Electrical register for measuring pumps.	453,484	June 2	484	125	55	1239
Jewell, William E., assignor to F. E. King, Belding, Mich. Whip.	462,711	Nov. 10	778	203	57	709
Jewell, William M. (See Jewell, Ira H. and W. M.)						
Jewell, William M. (See Jewell, Omar H. and W. M.)						
Jewell, William M., Chicago, Ill. Musical instrument.	460,688	Oct. 6	255	62	57	51
Jewell, William M. and O. H., Chicago, Ill. Filter.	447,568	Mar. 3	487	120	54	1209
Jewett, Albert G. (See Jewett, Charles F., assignor.)						
Jewett, Aldarilla C., executrix. (See Jones, James D.)						
Jewett, Charles C., Sand Spring, Iowa. Hay-loader.	461,340	Oct. 13	1231	313	57	246
Jewett, Charles F., Springfield, assignor to A. G. Jewett, Westhampton, Mass. Book-binding.	454,003	June 9	1244	324	55	1394
Jewett & Co., Sherman S. (See Graves, John J., assignor.)						
Jewett & Co., Sherman S. (See Walther, Charles F., assignor.)						
Jewett, Eri F., assignor, by mesne assignments, to P. L. Jewett, Newtown, Ohio. Adding-machine.	446,753	Feb. 17	2025	505	54	925
Jewett, Franklin N., Fredonia, N. Y. Device for opening hot boiled eggs.	462,049	Oct. 27	2437	604	57	489
Jewett, Luther K., Boston, Mass., assignor to Jewett Supply Company, Portland, Me. Anti-friction bearing.	449,078	Mar. 24	2918	{ 740 741 }	54	1700
Jewett, Percy L. (See Jewett, Eri F., assignor.)						
Jewett, Samuel R., et al. (See Mitchell, Clifford, assignor.)						
Jewett Supply Company. (See Jewett, Luther K., assignor.)						
Jewett, William O. L. (See Hardy and Jewett.)						
Jewsbury, Ebenezer C., Jerseyville, Ill. Windmill.	450,314	Apr. 14	1007	249	55	200
Jimenez, Lino J., Baltimore, Md. Spinning-top.	455,104	June 30	3035	771	55	1755
Jobbins, William F. (See Van Ruyambeke, Joseph, assignor.)						
Joblin, A. H., et al. (See Crosby, George W., assignor.)						
Jobke, Charles, et al. (See Elgen, Magnus P., assignor.)						
Job, Sherman, and W. Barlow, Sims, Ind. Car starter and brake.	466,242	Dec. 29	3579	915	57	1857
Johann, John, Harrison, Wis. Composition for treating seeds.	449,741	Apr. 7	149	.....	55	30
Johansson, Olof, New York, N. Y., assignor to Keystone Watch Case Company, of Pennsylvania. Watch-bow fastener.	464,743	Dec. 8	1145	284	57	1361
Johansson, Carl A., Stockholm, Sweden, assignor, by mesne assignments, to United States Butter Extractor Company, New York, N. Y. Centrifugal butter-extractor. (Reissue.)	11,183	Aug. 4	677	175	56	658
Johansson, Karl A., assignor of one-half to E. H. Wachs, Chicago, Ill. Automatically-compensating journal-box.	446,384	Feb. 10	1444	355	54	799
John Church Company. (See Geiger, Charles F., assignor.)						
John Greenwood & Company. (See Thomson, William and G., assignors.)						
John, Mathias, Milwaukee, Wis. Domestic slicer, grater, and beater.	449,907	Apr. 7	396	99	55	77
John O'Flaherty Company. (See Pearson, Marshall H., assignor.)						
Johns, Ernest A., New York, N. Y. Water-tube steam-boiler.	465,408	Dec. 15	2239	574	57	1579
Johns, Henry W., New York, N. Y. Conduit for electric wires.	459,509	Sept. 15	1520	380	56	1377
Johns, Henry W., New York, N. Y. Demagnetizing asbestos.	461,579	Oct. 20	1689	.....	57	338
Johns, Henry W., New York, N. Y. Conduit for electric wires.	465,564	Dec. 22	2502	638	57	1640
Johns, Henry W., Jr., New York, N. Y. Fire-isolating apparatus.	445,372	Jan. 27	2216	{ 574 575 }	54	459
Johns, Henry W. and H. W., Jr., New York, N. Y. Centrifugal machine for making pulp tubes.	464,218	Dec. 1	333	81	57	1196
Johns, Samuel P., et al. (See Robie, Henry W., assignor.)						
Johns, Will R., Rockford, Ill. Circular-knitting machine.	456,308	July 21	1591	421	56	321
Johns, Will R., assignor of two-thirds to P. F. Keegan and C. H. Little, Boston, Mass. Self-registering scale.	454,966	June 30	2777	{ 708 709 }	55	1704
Johs, William E., assignor to H. B. Tilden, High Point, N. C. Treating tobacco-leaves.	457,029	Aug. 4	145	35	56	561
Johns, William S., et al. (See Wilson, Robert B., assignor.)						
Johnson, Albert, et al. (See Bingham, Martin, assignor.)						
Johnson, Albert, Newburg, N. Y. Axle-lubricator.	465,083	Dec. 15	1703	433	57	1479
Johnson, Albert E., and C. H. Porter, Brockton, Mass. Channel-cutting and flap turning attachment for sewing-machines.	444,895	Jan. 20	1473	381	54	304
Johnson, Alexander, assignor of one-half to E. D. Larkin, Camillus, N. Y. Vehicle-axle.	456,766	July 28	2362	622	56	475
Johnson, Alexander G., New York, N. Y. Tool for cutting wall-paper or other materials.	463,838	Nov. 24	2570	670	57	1073
Johnson, Alfred E., assignor of one-half to A. N. Campbell, Carson City, Nev. Drill press.	458,581	Sept. 1	51	11	56	1075
Johnson, Alfred W., New Brunswick, N. J. Fifth-wheel for vehicles.	450,911	Apr. 21	1961	481	55	396
Johnson, Amos. (See Johnson, Peter D. and A., assignors.)						
Johnson, Andrew, Chicago, Ill. Eccentric tool and work holder.	450,234	Apr. 14	883	{ 219 220 }	55	176
Johnson, Andrew, Chicago, Ill. Digging-machine.	458,714	Sept. 1	255	60, 61	56	1114
Johnson, Andrew L., Greeneville, Tenn. Planter.	462,712	Nov. 10	779	203	57	709
Johnson, Andy, Greenview, Ill. Step-ladder.	458,461	Aug. 25	2503	{ 608 609 }	56	1028
Johnson, Arthur. (See Johnson, Peter D. and A.)						
Johnson, Arthur T. M., East Melbourne, Victoria. Automatic-signaling target.	444,494	Jan. 13	813	{ 211 212 213 }	54	170
Johnson, Axel, Oakland, assignor to Marshall Improved Window Furniture Company, San Francisco, Cal. Sash-fastener.	456,129	July 14	1301	341	56	258
Johnson, Axel, Oakland, assignor to Marshall Improved Window Furniture Company, San Francisco, Cal. Sash-balance.	456,492	July 21	1894	501	56	378
Johnson, Benjamin P., assignor to J. C. Johnson, New York, N. Y. Adjustable car-strap.	453,083	May 26	2655	669	55	1103
Johnson, Berni M., and J. Reichert, Racine, Wis.; said Johnson assignor to said Reichert. Horse-collar fastening.	446,099	Feb. 10	961	236	54	706
Johnson, Bradbury P. (See Hare and Johnson.)						
Johnson, Caroline S., and M. E. Moore, Deering, Me.; said Moore assignor to said Johnson. Invalid-bed.	452,304	May 12	1379	343	55	842
Johnson, Carroll H., Grain Valley, Mo. Grain-drill cleaner.	453,356	June 2	274	73	55	1199
Johnson, Charles A., Hartford, Conn. Screw-cutting die.	464,568	Dec. 8	861	212	57	1308
Johnson, Charles E., Columbus, Ohio. Hame.	454,682	June 23	2287	586	55	1605
Johnson, Charles F. (See Garrett, James W., assignor.)						
Johnson, Charles L., Amesbury, Mass. Carriage-seat.	465,375	Dec. 15	2193	562	57	1570

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Johnson, Charles P. (See Gutmann and Johnson.)						
Johnson, Charles R., Toledo, Ohio. Apparatus for gumming saws	463,424	Nov. 17	1924	502	57	940
Johnson, Charles S. (See Cutcheon and Johnson.)						
Johnson, Chester, Otsego, assignor of one-half to J. Richmond, Kalamazoo, Mich. Swing- ing chair	457,085	Aug. 4	243	62	56	579
Johnson, Chester P., Amsterdam, N. Y. Attachment for stoves	451,935	May 12	761	192	55	729
Johnson, Chester P., assignor to J. D., J., and F. A. Blood, Amsterdam, N. Y. Machine for cleaning brooms	464,970	Dec. 15	1459	374	57	1440
Johnson, Claus, Aurelia, Iowa. Boot or shoe cleaner	447,116	Feb. 24	2632	653	54	1050
Johnson Company. (See Entwisle, Edward B., assignor.)						
Johnson Company. (See Suppes, Maximilian M., assignor.)						
Johnson-Crane Matrix Company. (See Johnson and Crane, assignors.)						
Johnson, Cyrus F., Lafayette, assignor of one-third to L. L. Johnson, Jr., Mayfield, Ky. Car-coupling	457,890	Aug. 18	1585	412	56	847
Johnson, Daniel, Crookston, Minn. Spark-arrester	462,008	Oct. 27	2379	589	57	478
Johnson, David B. (See Johnson, Nicholas and D. B.)						
Johnson, David J., San Francisco, Cal. Basket-hamper	447,830	Mar. 10	913	228	54	1298
Johnson, Edward C., administrator. (See Gage, Charles W. and A. S.)						
Johnson, Edward C., Keokuk, Iowa. Steam-engine	453,641	June 9	731	{ 188 189 }	55	1294
Johnson, Edward C., Keokuk, Iowa. Steam-engine	453,642	June 9	733	189	55	1295
Johnson, Edward C., Keokuk, Iowa. Steam-engine	453,643	June 9	735	190	55	1295
Johnson, Edward C., assignor to T. M. Johnson, Keokuk, Iowa. Governor for steam-pumps	465,477	Dec. 22	2345	601	57	1610
Johnson, Edward H. (See Cápek, John V., assignor.)						
Johnson, Edward H. (See Lundell, Robert, assignor.)						
Johnson, Edward H. (See Olan, Johan W. T., assignor.)						
Johnson, Edward H., New York, N. Y. Electric switch	448,431	Mar. 17	1910	480	54	1500
Johnson, Edward H., New York, N. Y. Electrical propulsion of vehicles	450,742	Apr. 21	1686	409	55	345
Johnson, Edward H., New York, N. Y. Power-transmitting device	450,743	Apr. 21	1690	409	55	345
Johnson, Edward H., New York, N. Y. Power-transmitting device for electric railways	450,744	Apr. 21	1693	{ 409 410 }	55	346
Johnson, Edward H., New York, N. Y. Tubular electric conduit	454,275	June 16	1636	430	55	1477
Johnson, Edward H., New York, N. Y. Conductor for three-wire systems	462,489	Nov. 3	421	103	57	631
Johnson, Edward H., assignor to Edison General Electric Company, New York, N. Y. Electric-lighting system	449,044	Mar. 24	2870	729	54	1692
Johnson, Erick, Chicago, Ill. Damper	463,333	Nov. 17	1771	413	57	910
Johnson, Ernest, et al. (See Park, Joseph Jr., assignor.)						
Johnson, Ernest V., Chicago, Ill. Construction of fire-proof buildings	448,048	Mar. 10	1277	326	54	1367
Johnson, Ernest V., Chicago, Ill. Construction of buildings	456,309	July 21	1594	421	56	321
Johnson, Francis A., Powhatan, Ark. Car-coupling	447,154	Feb. 24	2725	675	54	1066
Johnson, Frank A., et al. (See Whittingham, David L., assignor.)						
Johnson, Frank A., Racine, Wis. Rat-trap	452,575	May 19	1833	460	55	935
Johnson, Frank A., assignor to Tachytypo Manufacturing Company, Minneapolis, Minn. Matrix-making and stereotyping machine	463,388	Nov. 17	1865	{ 47 48 }	57	929
Johnson, Frank A., and W. E. Craue, assignors to Johnson-Crane Matrix Company, Min- neapolis, Minn. Machine for producing printing-surfaces	445,559	Feb. 3	50	{ 13 14 15 }	54	521
Johnson, Frank P., Evers Grove, Pa. Sash-balance	449,538	Mar. 31	3689	926	54	1852
Johnson, Fred A., assignor of one-half to F. W. Weeks, Bath, Me. Stay for suspended electric lights	462,669	Nov. 3	694	176	57	684
Johnson, Frederick C., et al. (See Toncey, Ferris D., assignor.)						
Johnson, Frederike, and D. Burkhartsmeier, Chicago, Ill. Drip-protector for wash-boilers	461,834	Oct. 27	2110	519	57	426
Johnson, George. (See Kintner, Charles J., assignor.)						
Johnson, George B., and J. O. Hale, Princeton, Kans. Machine for laying and spooling wire	450,022	Apr. 7	553	138	55	107
Johnson, George E., Danvers, Mass. Car-brake	456,958	Aug. 4	58	11	56	544
Johnson, George J., Blooming Prairie, Minn. Grain measurer and bagger	460,580	Oct. 6	58	14	57	13
Johnson, George W., Erie, Pa. Pipe-tongs	460,015	Sept. 22	2317	500	56	1534
Johnson, Gustaf, Denver, Colo. Mechanical movement	455,254	June 30	3271	831	55	1601
Johnson, Gustav. (See Gutmann and Johnson.)						
Johnson, Henry C., Meadville, Pa. Fire-extinguisher	458,171	Aug. 25	2024	525	56	939
Johnson, Henry C., Washington, D. C. Book-leaf holder	461,341	Oct. 13	1232	313	57	247
Johnson, Herbert A., et al. (See Berestoff and Bedson, assignors.)						
Johnson, Horace R. (See Houghton, Charles E., assignor.)						
Johnson, Iver, and A. Fyrberg, Worcester, Mass.; said Fyrberg assignor to said Johnson. Revolver	465,179	Dec. 15	1871	474	57	1509
Johnson, James, Bolton, England. Construction of rain-water down-spouts	453,485	June 2	487	126	55	1240
Johnson, James B., assignor of one-half to R. R. Johnson, La Grange, Ind. Swinging chair	463,863	Nov. 21	2624	683	57	1082
Johnson, James C. (See Johnson, Benjamin P., assignor.)						
Johnson, James H. (See Dewey, Henry E., assignor.)						
Johnson, James H., Paterson, N. J. Umbrella or shade holder	458,301	Aug. 25	2252	550	56	981
Johnson, James M., Arneckeville, Tex. Vehicle-seat	446,754	Feb. 17	2028	505	54	926
Johnson, James R., Charleston, S. C. Smoke-conductor	450,023	Apr. 7	555	138	55	108
Johnson, James T. (See Wantling and Johnson.)						
Johnson, James W., New Brunswick, N. J. Lint coating and packaging machine	455,865	July 14	918	240	56	185
Johnson, Jesse B. (See Johnson, Joseph R., assignor.)						
Johnson, Jesse B., Indianapolis, Ind. Car-truck	447,430	Mar. 3	258	65	54	1166
Johnson, Jesse B., Indianapolis, Ind. Excelsior-machine	452,533	May 19	1801	453	55	929
Johnsou, Jesse B., Indianapolis, Ind. Baling-press	464,613	Dec. 8	924	{ 227 228 }	57	1322
Johnson, John, Baton Rouge, La. Stem winding and setting watch	445,182	Jan. 27	1942	502	54	403
Johnson, John, Brooklyn, N. Y. Composition adapted for steam-packing	451,693	May 5	384	57	55	652
Johnson, John, Memphis, Tenn. Rail-chair	451,823	May 5	377	142	55	689
Johnson, John, Humphrey, Nehr. Lounge	465,180	Dec. 15	1874	475	57	1509
Johnson, John A., Trempealeau, Wis. Clothes-pin	465,181	Dec. 15	1875	475	57	1510
Johnson, John A., Jr., Mauniest, Mich. Pocket-ledger	462,948	Nov. 10	1166	302	57	785
Johnson, John A., assignor of one-half to J. S. Pierson, Trempealeau, Wis. Switch-stand	451,403	Apr. 28	2736	{ 678 679 }	55	555
Johnson, John A., Madison, and T. G. Mandt, Stoughton, Wis. Vehicle-axle	460,873	Oct. 6	516	132	57	101
Johnson, John D., and J. B. Willison, Waynesburg, Pa. Safety-stirrup	459,291	Sept. 8	1166	284	56	1300
Johnson, John H., and J. Moran, Orange, Tex. Furnace	462,354	Nov. 3	219	53	57	593
Johnson, John I., assignor to E. Miller & Company, Meriden, Conn. Suspending device	455,878	July 14	938	246	56	189
Johnson, John K., assignor of one-half to F. F. Burdett, Washington, D. C. Safety device for elevators	460,874	Oct. 6	517	132	57	102

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Johnson, John T., <i>et al.</i> (See Beresford and Bedson, assignors.)						
Johnson, John W. R., assignor to Tredegar Company, Richmond, Va. Link-bending machinery	459,401	Sept. 15	1351	{ 338 339 }	56	1345
Johnson, Jonathan, Lowell, Mass. Gas or oil radiator	459,882	Sept. 22	2128	535	56	1500
Johnson, Joseph H., Bradford, Pa. Load-binder	448,862	Mar. 24	2607	654	54	1639
Johnson, Joseph R., assignor of one-half to J. B. Johnson, Indianapolis, Ind. Baling-press.	452,755	May 19	2124	534	55	993
Johnson, Larence A., San Francisco, Cal. Fish-net	446,755	Feb. 17	2029	506	54	926
Johnson, Levy L., Jr. (See Johnson, Cyrus F., assignor.)						
Johnson, Lewis W. (See Burke, Stephen E., assignor.)						
Johnson, Louis C., South Bend, Ind. Silts	450,357	Apr. 14	1075	264	55	212
Johnson, Louis K., Brooklyn, N. Y. Burglar-alarm	458,397	Aug. 25	2414	587	56	1012
Johnson, Louis K., and A. A. Low, Brooklyn, assignors to Alden Type Machine Company, New York, N. Y. Type-distributing apparatus	453,584	June 2	636	162	55	1268
Johnson, Manville D., Webster, Iowa. Gate	465,323	Dec. 15	2093	{ 534 535 }	57	1552
Johnson, Mathew, Chicago, Ill. Rotary engine	447,831	Mar. 10	914	{ 228 229 }	54	1298
Johnson, Moses C., Hartford, Conn. Lathe-head	458,423	Aug. 25	2449	506	56	1018
Johnson, Napoleon B., Framingham, Mass. Harness-support	459,583	Sept. 15	1642	411	56	1399
Johnson, Nels J., Grafton, N. D. Seed-drill	450,513	Apr. 14	1317	323	55	259
Johnson, Nels J., Grafton, N. D. Land roller	450,514	Apr. 14	1317	324	55	259
Johnson, Nicholas and D. B. Merriam, Kans. Latch	450,939	Apr. 21	1995	491	55	403
Johnson, Nis, assignor to Meriden Bronze Company, Meriden, Conn. Extensible standard for piano-lamps	453,865	June 9	1055	276	55	1357
Johnson, Ole, Milwaukee, Wis. Hoisting-bucket	455,544	July 7	397	{ 103 104 }	56	77
Johnson, Oliver, assignor of two-thirds to M. Sloan and W. P. Somers, Kingston, Pa. Boiler-tube expander	453,147	May 26	2758	695	55	1123
Johnson, Oliver W., Bucyrus, Ohio. Railway-gate	450,235	Apr. 14	888	221	55	177
Johnson, Oliver W., Bucyrus, Ohio. Railway-gate	454,955	June 30	2763	704	55	1701
Johnson, Peter D. and A.; said Peter D. Johnson assignor to A. Johnson, Wolcott, Ind. Latch	460,016	Sept. 22	2319	581	56	1535
Johnson, Reverdy R. (See Johnson, James B., assignor.)						
Johnson, Robert. (See Alexander and Johnson.)						
Johnson, Robert J., New York, N. Y. Carpet-fastener	444,201	Jan. 6	362	90	54	73
Johnson, Robert W., New Brunswick, N. J. Combined game-counter and pincushion	459,532	Sept. 15	1559	389	56	1384
Johnson, Samuel H., and C. C. Hutchinson, Stratford, England. Filter-press	459,488	Sept. 15	1488	373	56	1371
Johnson, Teresa M. (See Johnson, Edward C., assignor.)						
Johnson, Thomas A., <i>et al.</i> (See Tregurtha, James, assignor.)						
Johnson, Thomas C. (See Harding and James, assignors.)						
Johnson, Tom L., Cleveland, Ohio. Life-guard	454,214	June 16	1548	407	55	1460
Johnson, Walter A., Byron, Minn. Automatic grain-meter	448,238	Mar. 17	1576	{ 402 403 }	54	1436
Johnson, Walter J. O., Chicago, Ill. Electric lock	463,155	Nov. 17	1488	386	57	856
Johnson, Warren S., Milwaukee, Wis. Method of and means for transportation	461,535	Oct. 20	1624	397	57	325
Johnson, Warren S., Milwaukee, Wis. Car-propelling system	461,536	Oct. 20	1627	{ 397 398 }	57	326
Johnson & Watson. (See Watson, Montgomery H., assignor.)						
Johnson, Will R., assignor of one-half to M. L. Galt, Rock Island, Ill. Ruby-pin setter	457,492	Aug. 11	950	241	56	717
Johnson, William, Penn Yan, N. Y. Car-coupling	446,147	Feb. 10	1045	256	54	721
Johnson, William, Hull, Mass. Self-marking try-square	464,074	Dec. 1	104	26	57	1157
Johnson, William, Grant City, Mo., assignor of one-half to M. Robertson, Odell, Nebr. Thill attachment for vehicles	465,528	Dec. 22	2441	622	57	1628
Johnson, William D., New Haven, and T. A. Curtis, Hartford, Conn. Coupling for hot-water heating-pipes	447,329	Mar. 3	75	21	54	1132
Johnson, William F., Mooresville, Ind. Corn-planter	454,871	June 30	2591	{ 665 666 }	55	1689
Johnson, William H. (See Wayland, Ellis, assignor.)						
Johnson, William H., Argentine, Mich. Wood-working tool	445,276	Jan. 27	2086	538	54	431
Johnson, William H., Brooklyn, N. Y. Clutch	456,827	July 28	2452	646	56	492
Johnson, William H., Milwaukee, Wis., assignor to Lewis & Fowler Girder Rail Company, Brooklyn, N. Y. Combined punching and sawing machine	464,024	Dec. 1	29	8, 9	57	1142
Johnson, William H., and T. Kruse, Indianapolis, Ind. Urinal	453,118	May 26	2709	682	55	1115
Johnson, William L., Pomona, Cal. Hose-coupling	457,724	Aug. 11	1291	336	56	764
Johnson, William W., Beebe, Ark. Device for extracting bolts	461,939	Oct. 27	2284	565	57	460
Johnson, Willie L., Lake City, Miss. Back-band	444,296	Jan. 6	497	129	54	99
Johnston, Allen, Ottumwa, Iowa. Hemmer for sewing-machines	455,535	July 7	379	97	56	75
Johnston, Allen, Ottumwa, Iowa. Means for grinding cutlery and other articles	465,376	Dec. 15	2194	562	57	1570
Johnston, Allen, Ottumwa, Iowa. Grinding-machine	465,478	Dec. 22	2346	{ 601 602 }	57	1611
Johnston, Allen W., Palatine Bridge, N. Y. Index	463,744	Nov. 24	2435	638	57	1046
Johnston, Andrew L., Richmond, Va. Automatic disconnecter for overhead conductors	459,839	Sept. 22	2053	516	56	1485
Johnston, Andrew L., Richmond, Va. Automatic disconnecter for overhead conductors	459,840	Sept. 22	2054	516	56	1486
Johnston, Bruce, Croydon, England. Cash register and indicator	446,509	Feb. 17	1782	441	54	878
Johnston Car Seat Company. (See Gillilan, Essington N., assignor.)						
Johnston, Edgar D., Connorsville, Ind. Means for moving slack coal	449,122	Mar. 31	2997	757	54	1734
Johnston, Edward H., Philadelphia, Pa. Machine for making point-rails	454,274	June 16	1634	429	55	1476
Johnston, Frederic J., Boston, assignor to J. W. Tufts, Medford, Mass. Valve mechanism for carbonic-acid-gas generators	450,076	Apr. 7	631	158	55	123
Johnston, George, Detroit, Mich. Trial spectacle-frame	444,495	Jan. 13	817	213	54	171
Johnston Harvester Company. (See Crowley, George G., assignor.)						
Johnston, Henry L. (See Carlton and Johnston.)						
Johnston, James B., Muskegon, Mich. Water-tube boiler	454,215	June 16	1549	{ 407 408 }	55	1460
Johnston, John S., Chicago, Ill. Car-seat	450,672	Apr. 21	1598	381	55	328
Johnston, Leone J., Petaluma, Cal. Farm-gate	449,221	Mar. 31	3147	793	54	1751
Johnston, Robert. (See Peifer and Johnston.)						
Johnston, Robert A. (See Holmes and Teske, assignors.)						
Johnston, Samuel, Denver, Colo. Metal-rolling machine	455,336	July 7	49	14	56	12
Johnston, Thomas, Newburg, N. Y. Pawl-and-ratchet mechanism	464,938	Dec. 8	1414	357	57	1414
Johnston, Thomas A., <i>et al.</i> (See Lombard, Nathaniel, assignor.)						
Johnston, Thomas H. (See Barringer and Johnston.)						
Johnston, Thomas R., London, England. Printing-press feeder	462,136	Oct. 27	2574	{ 640 641 642 }	57	515
Johnston, Thomas R., London, England. Globe	465,274	Dec. 15	2018	516	57	1537

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Johnston, William, Menominee, Mich., assignor of one-half to A. W. Marlatt, Marinette, Wis. Holder for pillow-shams	450,075	Apr. 7	630	158	55	123
Johnston, William A., and A. W. Browne, Prince's Bay, N. Y., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Metallic vessel for compressed gases	457,158	Aug. 4	345	88	56	599
Johnston, William C., Jr., Lynn, Mass. Circuit-closer	450,292	Apr. 14	966	240	55	192
Johnston, William F. (See Ballard, James W., assignor.)						
Johnstone, Francis W., Mexico, Mexico. Starting-valve for compound engines	460,581	Oct. 6	59	14, 15	57	13
Johnstone, Francis W., Mexico, Mexico. Valve for compound engines	464,175	Dec. 1	252	62	57	1183
Jole, Jacob, <i>et al.</i> (See Yaryan, Harvey B., assignor.)						
Joliet Steel Bale Tie Company. (See Brainard, Curtis B., assignor.)						
Jolly, Claude, Paris, France. Velocipede	465,859	Dec. 29	2954	755	57	1737
Jolly, James and W., Holyoke, Mass. Wire-drawing machine	451,936	May 12	762	193	55	730
Jolly, Mathias, assignor to M. E. Hart, Troy, N. Y. Oil-can	445,061	Jan. 20	1748	450	54	357
Jolly, William. (See Jolly, James and W.)						
Joly Stopper Company. (See Rehfuss, George, J. G., and M. O., assignors.)						
Jonach, Oscar, New York, N. Y. Trousers-protector	465,765	Dec. 22	2805	718	57	1699
Jonasson, Meyer. (See Kolber, Eduard, assignor.)						
Jonasson, Meyer, <i>et al.</i> (See Lewy, Charles H., assignor.)						
Jones, Abijah. (See Odell and Jones.)						
Jones, Adoniram J. (See Claussen and Jones.)						
Jones, Albert E., and T. F. Fagan, Duquesne, Pa. Car-coupling	458,905	Sept. 1	560	136	56	1172
Jones, Albert F., Salem, Mass. Bark-mill	453,486	June 2	488	126	55	1240
Jones, Albert F., assignor to himself and J. H. Poor, Salem, Mass. Feeding attachment for tan-presses	451,304	Apr. 28	2596	640	55	528
Jones, Alfred J. (See Jones, James and A. J.)						
Jones, Aldred J., London Mills, assignor of one-half to C. F. L. McKenney, Maquon, Ill. Reversible rack	452,792	May 26	2181	546	55	1012
Jones, Arthur W., Boston, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Multiple-fuse cut-out	450,159	Apr. 14	756	192	55	154
Jones, Atbelstan O., Zanesville, Ohio. Paving-brick	447,612	Mar. 3	555	137	54	1222
Jones, Augustus H. (See Shull, Joseph C., assignor.)						
Jones, Avery F., North East, Pa. Folding chair	457,780	Aug. 18	1392	360	56	812
Jones, Budd J., Chicago, Ill. Electric car-lighting apparatus	451,732	May 5	441	107	55	63
Jones, Byron, assignor to Portland Wind Engine Company, Portland, Ind. Windmill	455,720	July 7	686	181	56	132
Jones, Charles E., Sr., assignor of two-thirds to W. J. Flanagan and R. J. Hoffman, Florence, Ala. Lock	453,192	June 2	21	7	55	1153
Jones, Charles S., Redding, Cal. Ore-mill	450,236	Apr. 14	692	222	55	178
Jones, Charles W., London, Canada. Spindle-driving mechanism for spinning-machines	448,239	Mar. 17	1578	403	54	1477
Jones, Charles W., Milan, Italy. Revivifying gas-purifying agent	462,137	Oct. 27	2579	643	57	516
Jones, Commodore P. (See Caldwell, Edward P., assignor.)						
Jones, Daniel, Cardiff, England. Sewing-machine	449,539	Mar. 31	3690	927	54	1852
Jones, David A. (See Dickson and Jones.)						
Jones, Edward, Leeds, England. Governor for steam-engines	459,853	Sept. 22	2076	521	56	1490
Jones, Edward A., Tonawanda, N. Y. Machine for grinding metal balls	455,879	July 14	939	246	56	1-9
Jones, Edward A., Tonawanda, N. Y. Machine for making metallic balls	455,880	July 14	942	247	56	189
Jones, Edward C., Boston, Mass. Gas-fired boiler	445,990	Feb. 10	805	195	54	677
Jones, Edward F., Wapella, Ill. Horseshoe	462,408	Nov. 3	310	77	57	610
Jones, Edward S., Providence, R. I. Securing device for zinc printing-plates	455,428	July 7	212	54	56	43
Jones, Elbert W., <i>et al.</i> (See Fisher, James W., assignor.)						
Jones, Ernest A., <i>et al.</i> (See Fisher, James W., assignor.)						
Jones, Esther A., Forest City, Pa. Boot-drier	454,050	June 16	1307	341	55	1414
Jones, Evan W., Portland, Oreg. Lathe for turning shafts	448,764	Mar. 24	2450	612	54	1610
Jones, Francis W., New York, N. Y. Duplex and quadruplex telegraphy	462,901	Nov. 10	1088	283	57	770
Jones, Frank. (See Williams, George A., assignor.)						
Jones, Frank, assignor to himself and S. E. Jones, Chicago, Ill. Corn-popper	453,744	June 9	888	231	55	1324
Jones, Frank D., assignor to M. D. Goetting, Springfield, Mass. Supplemental seat for bicycles	460,072	Sept. 22	2407	602	56	1551
Jones, Frank E., <i>et al.</i> (See Herrington, William S., assignor.)						
Jones, Frank L. (See Buckingham, Cassius M., assignor.)						
Jones, Franklin L., assignor of one-half to J. B. Peabody, Columbia City, Ind. Nut-lock	448,432	Mar. 17	1911	481	54	1500
Jones, Frederick J., St. Albans, assignor to Economic Gas and Coke Company, Limited, London, England. Apparatus for making coke	451,488	May 5	67	16, 17	55	592
Jones, George, Rochester, N. Y. Photographic roll-paper holder	450,794	Apr. 21	1778	432	55	362
Jones, George F., <i>et al.</i> (See Smith, Albert D., assignor.)						
Jones, George H., London, England. Fountain-pen	445,317	Jan. 27	2139	553	54	443
Jones, Harry W., Steelville, Pa. Whip-socket	462,559	Nov. 3	538	131	57	654
Jones, Henry A., Brooklyn, N. Y. Making puddler's balls	457,352	Aug. 11	723	184	56	673
Jones, Henry A., Brooklyn, N. Y. Apparatus for deoxidizing, melting, and puddling iron ores	466,045	Dec. 29	3287	838	57	1801
Jones, Henry M., Denver, Colo. Vestibule-car	448,186	Mar. 10	1478	376	54	1409
Jones, Herbert T. (See Middleton and Jones.)						
Jones, Horace G., <i>et al.</i> (See Smith, Albert D., assignor.)						
Jones, Horace K., Hartford, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Die for swaging the threads of gimlet-pointed screws	444,554	Jan. 13	906	236	54	188
Jones, Horace K., Hartford, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Manufacture of bolts or pins	446,739	Feb. 17	2005	500	54	922
Jones, Horace K., Hartford, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Bolt or pin	446,740	Feb. 17	2007	500	54	922
Jones, Horace K., Hartford, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Felly-screw	446,741	Feb. 17	2008	500	54	922
Jones, James and A. J., Thorold, Canada. Grinding-mill	448,347	Mar. 17	1782	450	54	1476
Jones, James D., deceased; A. C. Jewett, Cleveland, executrix, and assignor to Jones National Fence Company, Columbus, Ohio. Tool for joining wire-fence strands	446,219	Feb. 10	1171	287	54	743
Jones, James E., <i>et al.</i> (See Flowers, Malon I., assignor.)	455,869	July 14	924	241	56	186
Jones, James H., San Francisco, Cal. Injector oil-burner for boiler-furnaces	444,115	Jan. 6	214	51, 52	54	44
Jones, James H., assignor to Emerson, Talcott & Company, Rockford, Ill. Mowing-machine	454,741	June 23	2375	610	55	1623
Jones, James S., Crutcheville, Ky. Windlass	463,057	Nov. 10	1322	342	57	817
Jones, John, Elkhart, Ind. Railway-crossing. (Reissue)	11,150	Apr. 28	2814	696	55	569
Jones, John, New York, N. Y. Electric railway	453,710	June 9	845	218	55	1315

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Jones, John A., Middlesbrough-on-Tees, England, assignor of one-half to T. A. Wigham, Chicago, Ill. Making paving-blocks.....	455,213	June 30	3221	55	1791
Jones, John D. (See Clouse, William L., assignor.)						
Jones, John E. (See Pool, Munson G., assignor.)						
Jones, John M., Palmyra, N. Y. Printing-press.....	450,368	Apr. 14	1105	270	55	217
Jones, John M., assignor to G. W. Henderson, Atlanta, Ga. Car-pusher.....	449,632	Mar. 31	3857	966	54	1883
Jones, John R., Philadelphia, Pa. Machine for molding and condensing round bars.....	456,957	Aug. 4	57	13, 14	56	543
Jones, John R., Philadelphia, Pa. Machine for rolling car-wheels.....	457,922	Aug. 18	1638	{ 428 429 693 694 }	{ 56 54 }	857 1667
Jones, John R., and J. W. Scott, Arlington, Ill. Railway alarm-signal.....	448,963	Mar. 24	2747	{ 693 694 }	{ 54 }	1667
Jones, John W., and E. K. Bridger, assignors to Jones Syndicate, Limited, London, England. Machine for forming metal waists for boots or shoes.....	453,813	June 9	995	259	55	1345
Jones, John W., and E. K. Bridger, assignors to Jones Syndicate, Limited, London, England. Manufacture of boots and shoes.....	456,370	July 21	1717	454	56	344
Jones, Joseph C., et al. (See Smith, Albert D., assignor.)						
Jones, Joshua W., Harrisburg, Pa. Dry-pressing, sheet-tying, smashing, and tableting machine.....	452,898	May 26	2347	{ 593 594 }	{ 55 }	1044
Jones, Lena, Lordsburg, N. Mex. Ter. Wash-boiler.....	459,549	Sept. 15	1587	397	56	1389
Jones, Lorenzo D., et al. (See Sansoncy, Mack, assignor.)						
Jones, Lorenzo D., Rocky Ford, assignor to Screven County Lumber Company, Screven County, Ga. Portable building.....	450,025	Apr. 7	559	{ 139 140 }	{ 55 }	108
Jones, Lyman M., and J. Wedlake, assignors to A. Harris, Son & Company, Limited, Brantford, Canada. Harvester-binder.....	450,024	Apr. 7	557	138	55	108
Jones, Maggie E., Cascade, Ark. Fishing-seine.....	462,258	Nov. 3	56	14	57	563
Jones, Mathias N., Escanaba, Mich. Switch.....	444,320	Jan. 6	389	97	54	78
Jones, Mathias N., Escanaba, Mich. Railway time-signal.....	454,478	June 23	1951	508	55	1544
Jones, Maurice H., Baltimore, Md. Auger.....	444,956	Jan. 20	1594	407	54	326
Jones, Melville D., Somerville, Mass. Lawn-sprinkler.....	462,902	Nov. 10	1090	283	57	771
Jones, Moses S. (See Wall, Jones, and Bishop.)						
Jones National Fence Company. (See Jones, James D., assignor.)						
Jones, Patrick F., Allegheny, Pa. Combined ticket-case and cash-box.....	455,624	July 7	529	139	56	102
Jones, Richard H., et al. (See Day, George W., assignor.)						
Jones, Richard W., Syracuse, N. Y. Rosette.....	456,725	July 28	2276	603	56	460
Jones, Richard W., Syracuse, N. Y. Device for supporting chalk.....	457,559	Aug. 11	1044	268	56	756
Jones, Richard W., and H. C. Weber, Nashville, Tenn. Window-shade.....	446,456	Feb. 17	1577	384	54	838
Jones, Robert M., Salt Lake City, Utah Ter. Wire-clamp.....	452,185	May 12	1204	305	55	809
Jones, Robert M., Salt Lake City, Utah Ter. Trolley-stand.....	452,186	May 12	1204	305	55	809
Jones, Robert M., Salt Lake City, Utah Ter. Trolley-line circuit-breaker.....	459,753	Sept. 22	1921	484	56	1459
Jones, Robert M., Salt Lake City, Utah Ter. Crossing for trolley-wires.....	464,129	Dec. 1	179	44	57	1171
Jones, Samuel E., Cañon City, Colo. Time-alarm.....	459,402	Sept. 15	1356	339	56	1346
Jones, Sarah E. (See Jones, Frank, assignor.)						
Jones Syndicate. (See Jones and Bridger, assignors.)						
Jones, Thomas, Chicago, Ill. Plaster.....	451,560	May 5	176	.....	55	613
Jones, Thomas B., Radnor, Ohio. Corn-harvester.....	453,907	June 9	1110	{ 290 291 }	{ 55 }	1367
Jones, Thomas E., assignor of one-half to S. D. Sessler, Bristol, Tenn. Boiler-cleaner.....	456,894	July 28	2566	675	56	512
Jones, Thomas J., Jr., Plano, Ill. Manufacture of railway-ties.....	455,337	July 7	50	15	56	13
Jones, Tilford J., assignor of one-half to J. W. Shirley, Bogard, Mo. Tire-tightener.....	462,855	Nov. 3	219	53	57	593
Jones, Walter A., Bagwells, Tex. Provision-safe.....	465,710	Dec. 22	2720	694	57	1682
Jones, Walter F., Syracuse, N. Y. Game apparatus.....	447,247	Feb. 24	2881	715	54	1097
Jones, Washington, assignor to himself, A. A. Dillehay, and J. T. O'Ferrall, Meridian, Miss. Planter and fertilizer-distributing attachment for plows.....	445,852	Feb. 3	562	137	54	621
Jones, Wesley C., Warrensburg, Mo. Broom rack or holder.....	464,176	Dec. 1	254	62	57	1183
Jones, Wesley C., Warrensburg, Mo. Water-elevator.....	465,062	Dec. 15	1665	424	57	1471
Jones, William, Osceola, Neb. Apparatus for removing live stock from barns.....	456,037	July 14	1177	309	56	232
Jones, William, La Grande, Ore. Feeder for heaters.....	463,902	Nov. 24	2680	698	57	1092
Jones, William A., assignor of one-half to W. A. Dorman, Sigourney, Iowa. Farm-gate.....	461,220	Oct. 13	1055	267	57	210
Jones, William H., Chicago, Ill. Elevator.....	447,117	Feb. 24	2633	{ 653 654 }	{ 54 }	1050
Jones, William H., Brookeville, Md. Wall-protector.....	452,883	May 26	2324	586	55	1039
Jones, William H., assignor to New England Silk Machine Company, Hartford, Conn. Machine for working silk and other fibers.....	462,867	Nov. 10	1032	267	57	759
Jones, William P. (See Baker, Charles H., assignor.)						
Jones, William W., assignor to himself and T. M. Hall, Granada, Colo. Planter.....	456,038	July 14	1178	310	56	232
Jones, Willis, Buffalo, N. Y. Power-hammer.....	454,824	June 23	2513	647	55	1647
Jonge, Frederik P. de, Amsterdam, Netherlands. Seaming-machine.....	451,489	May 5	69	17	55	592
Jönsson, Johan L., assignor to Aktiebolaget Separator, Stockholm, Sweden. Milk-heater.....	447,073	Feb. 24	2568	637	54	1037
Jordan, David C., David City, Neb. Washing-machine.....	460,376	Sept. 29	2883	720	56	1650
Jordan, Edmund, Brooklyn, assignor to M. H. Cashman, New York, N. Y. Barbed fencing.....	444,957	Jan. 20	1596	407	54	326
Jordan, Edmund, Brooklyn, assignor, by mesne assignments, to T. V. Allis, New York, N. Y. Die for use in making barbed fencing.....	450,077	Apr. 7	633	159	55	124
Jordan, Edmund, Brooklyn, assignor, by mesne assignments, to T. V. Allis, New York, N. Y. Die for use in making barbed fencing.....	450,078	Apr. 7	634	159	55	124
Jordan, Edmund, Brooklyn, assignor, by mesne assignments, to T. V. Allis, New York, N. Y. Die for use in making barbed fencing.....	450,079	Apr. 7	637	160	55	124
Jordan, Green H., Talbotton, Ga. Fence.....	461,835	Oct. 27	2111	520	57	426
Jordan, Henry, assignor of three-eighths to J. Jordan and C. Y. Woodall, Macon, Ga. Car-door.....	456,537	July 21	1971	520	56	393
Jordan, James H., and J. M. Cook, Mountain Home, Ark. Tongue-support.....	448,433	Mar. 17	1913	481	54	1500
Jordan, Jesse, et al. (See Jordan, Henry, assignor.)						
Jordan, John S. and J. E. Eller; said Eller assignor to W. McGinnis, Indianapolis, Ind. Folding step.....	446,385	Feb. 10	1445	355	54	799
Jordan, Joseph, Bridgeport, Pa. Apparatus for bleaching paper-pulp.....	452,074	May 12	1009	254	55	773
Jordan, Linwood F., Somerville, Mass., assignor, by mesne assignments, to B. G. Electrical Supply Company, Portland, Me. Electric car-lighting.....	445,954	Feb. 3	712	{ 173 174 }	{ 54 }	652
Jordan, Linwood F., Somerville, Mass., assignor of one-half to H. B. Bennett, Portland, Me. Train-signaling apparatus.....	455,510	July 7	332	85, 86	56	66
Jordan, Louis, assignor to Manifold Notion Company, New York, N. Y. Bottle or flask.....	458,906	Sept. 1	562	136	56	1173
Jordan, Oswald F., and R. Potts, St. Thomas, Canada. Railway-scraper.....	447,777	Mar. 10	818	203	54	1280
Jordan, Robert G., Woodbury, N. J. Furniture-caster.....	454,742	June 23	2377	611	55	1624
Jordan, Robert G., Woodbury, N. J. Furniture-caster.....	461,580	Oct. 20	1690	414	57	339
Jordan, Will F., et al. (See Kellberg, John C., assignor.)						
Jordon, John, London, England. Card-printing machine.....	449,420	Mar. 31	3511	884	54	1818

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Jörgensen, Jörgen, Hamburg, Germany. Lubricator	454,999	June 30	2855	726	55	1720
Jorgensen, Lars, Milwaukee, Wis. Convertible chair	454,276	June 16	1637	430	55	1477
Josef, Edward E., Buffalo, N. Y. Pillow-sham holder	457,781	Aug. 18	1393	360	56	812
Josef, Edward E., Buffalo, N. Y., assignor to himself, J. Laughlin, J. E. Ewell, and W. E. Haupt. Car-wheel	465,096	Dec. 15	1728	439	57	1483
Joseph, Charles, assignor to R. Joseph, New York, N. Y. Pocket-book	445,373	Jan. 27	2218	575	54	459
Joseph, Rose. (See Joseph, Charles, assignor.)						
Joseph Whitworth & Company. (See Canet, Jean B. G. A., assignor.)						
Josephson, Moses, Springfield, Ill. Washing-machine	456,310	July 21	1595	422	56	322
Joslyn, Charles H., Ilion, N. Y. Type-distributing machine	464,477	Dec. 1	719	175 176	57	1271
Joslyn, Hiram N., Des Moines, Iowa. Implement for dehorning cattle	456,575	July 28	2029	537	56	412
Josselyn, Tudor C., assignor of one-half to F. L. Browne, New York, N. Y. Release-key for type-writer carriages	463,992	Nov. 24	2827	733	57	1120
Jourdan, Frederick. (See Jourdan, Leonhard M., assignor.)						
Jourdan, Leonhard M., Muttentz, Switzerland, assignor to F. Jourdan, Branford, Conn. Street-cleaning machine	453,425	June 2	399	103 104	55	1222
Joy & Co., T. C. (See Joy, Thaddeus C., assignor.)						
Joy, Thaddeus C., assignor to T. C. Joy & Co., Titusville, Pa. Steam or hot-water radiator	456,895	July 28	2567	675	56	512
Joy, Thaddeus C., assignor to T. C. Joy & Co., Titusville, Pa. Steam or hot-water radiator	456,896	July 28	2568	675	56	512
Judd, E. C., et al. (See Daggett, John C., assignor.)						
Judd, Fred. W., assignor to Avery Stamping Company, Cleveland, Ohio. Cooking-vessel	451,054	Apr. 28	2190	540	55	449
Judd, James A., Bristol, Conn. Knockdown chair	458,208	Sept. 1	388	93, 94	56	1140
Judevine, Henry W., Edgar Springs, Mo. Broom-head	444,886	Jan. 20	1462	379	54	302
Judge, William A., Santa Barbara, Cal. Index	446,756	Feb. 17	2030	506	54	927
Judkins, Mark D., Osakis, Minn. Clothes-drier	448,049	Mar. 10	1280	326	54	1368
Judkins, W. Tyson, et al. (See Wilson, Robert B., assignor.)						
Judson, A. H., et al. (See Delane, Anson W., assignor.)						
Judson, Charles N., Brooklyn, N. Y. Card-catalogue	464,877	Dec. 8	1336	335	57	1400
Judson L. Thomson Manufacturing Company. (See Unbehend, Jacob J., assignor.)						
Judson, Whitcomb L., New York, N. Y. Street-railway	464,614	Dec. 8	926	228 229 230 230	57	1322
Judson, Whitcomb L., New York, N. Y. Street-railway	464,615	Dec. 8	930	230	57	1323
Judson, Whitcomb L., New York, N. Y. Street-railway	464,616	Dec. 8	933	230	57	1323
Judy, John F., and N. H. Wilson, Huntingburg, Ind. Umbrella or parasol	444,359	Jan. 6	587	151	54	117
Julian, Gideon, assignor of one-half to S. M. Fay, Boston, Mass. Sole-rounding machine	446,686	Feb. 17	1922	479 480	54	904
Julius, Paul, assignor to Badische Anilin and Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Red dye	447,189	Feb. 24	2782		54	1077
Jull, Samuel T., assignor to F. T. Fish, Meadville, Pa. Meat-cutter	449,585	Mar. 31	3763	945	54	1865
June, Marcus M., assignor of two-thirds to O. Coville and T. H. Whitcomb, Syracuse, N. Y. Machine for manufacturing confectionery-drops	458,809	Sept. 1	389	94	56	1140
Jung, Friedrich, Schorndorf, Germany. Apparatus for heating and pitching barrels	460,291	Sept. 29	2751	685	56	1625
Jungbluth, Johann, Cologne, Germany. Pavement for stables	458,788	Sept. 1	360	87	56	1134
Jungbluth, Joseph, Erie, Pa. Gage-cock	444,360	Jan. 6	588	152	54	117
Junginger, Eberhard, Stuttgart, Württemberg, Germany. Match-box	457,560	Aug. 11	1045	268	56	737
Junkins, Jeathro E., Upper Sandusky, Ohio. Barrel stand and truck	460,250	Sept. 29	2675	667	56	1611
Junkins, John H., Upper Sandusky, Ohio. Hay-stacker	449,540	Mar. 31	3693	928	54	1852
Junod, Alfred, J. Jaccard, and P. Calame-Jaccard, assignors to A. Junod & Co., Ste. Croix, Switzerland. Musical box	445,699	Feb. 3	305	80, 81	54	572
Junod & Co., Alfred. (See Junod, Jaccard, and Calame-Jaccard, assignors.)						
Junquera, Buenaventura, Mieres, Spain. Spike	450,811	Apr. 21	1804	438	55	367
Jurey, Louis H. (See Ayres, William C., assignor.)						
Just, Thomas W., R. Weiler, and O. Heidepriem, Melbourne, Victoria. Ink	465,860	Dec. 29	2956		57	1737
Justi, Henry D. (See Nütz, George W., assignor.)						
Justi, Henry D., Philadelphia, Pa. Deutal engine	451,246	Apr. 28	2507	618	55	510
Justin, Joel G., Syracuse, N. Y., assignor to Justin Projectile Company, Jersey City, N. J. Shell for high explosives	464,569	Dec. 8	863	212	57	1309
Justin Projectile Company. (See Justin, Joel G., assignor.)						
Jutson, Charles J., and F. A. Poupard, London, England. Horseshoe	450,622	Apr. 21	1483	364	55	299
Juvinall, Charles D., Upper Sandusky, Ohio. Automatic hydrocarbon-injector	461,500	Oct. 20	1561	383	57	314
Kacer, Martin V. (See Yocum and Kacer.)						
Kaczander, Leopold, New York, and R. Ruddy, Mount Vernon, assignors to Nathan Manufacturing Company, New York, N. Y. Injector	445,642	Feb. 3	201	53	54	551
Kade, Charles, Chicago, Ill. Spring-holding bracket	448,240	Mar. 17	1579	403	54	1437
Kade, Charles, Chicago, Ill. Rocking-chair attachment	451,490	May 5	71	18	55	593
Kadel, John, and E. Dill, Rock Falls, Ill. Furniture-attaching device	455,566	July 7	433	115	56	84
Kaempfer, Frederick, Chicago, Ill. Escutcheon for exhibiting animals' horns	453,008	May 26	2529	640	55	1080
Kaestner, Ernest A., Baltimore, Md. Milk-can	458,462	Aug. 25	2505	609	56	1028
Kafader, James O., Fort Bidwell, Cal. Pipe punch and cutter	462,800	Nov. 10	918	239	57	738
Kaffenberger, Gustav, assignor of one-fourth to A. Doll, Cleveland, Ohio. Digesting apparatus	448,581	Mar. 17	2129	534	54	1542
Kahler, Peter, Star City, Ind. Jockey-stick	453,370	June 2	294	77	55	1202
Kahlke, Henry W., Brooklyn, N. Y. Latch	461,200	Oct. 13	1011	257	57	200
Kahn, Arthur, Jersey City, N. J. Massage apparatus	448,883	Mar. 24	2630	661	54	1643
Kahn & Brothers, F. & L. (See Boaz, William B., assignor.)						
Kahn & Brothers, F. & L. (See Kahn and Christ, assignors.)						
Kahn, Herman, et al. (See Besthoff, Samuel J., assignor.)						
Kahn, Herman, et al. (See Nicolaus, August, assignor.)						
Kahn, Lazard. (See McDermott and Kahn.)						
Kahn, Lazard, Hamilton, Ohio. Gas-burner	454,910	June 30	2668	683	55	1684
Kahn, Lazard, Hamilton, Ohio. Gas-stove	465,023	Dec. 15	1601	408 409	57	1461
Kahn, Lazard, and R. Christ, assignors to F. & L. Kahn & Brothers, Hamilton, Ohio. Gas-stove	464,688	Dec. 8	1055	263	57	1345
Kahn, Leopold, assignor of two-thirds to L. Furchgott, Jacksonville, Fla., and M. Furchgott, New York, N. Y. Curtain-fixture	457,119	Aug. 4	284	74	56	587
Kahnes, Franz R., Leipsic, Germany. Book-sewing machine	460,582	Oct. 6	61	15 16 17	57	14
Kaighin, Charles J. (See Watriss and Kaighin.)						
Kail, John L., assignor to himself and P. De Tamble, Chicago, Ill. Fare-box	455,881	July 14	945	247	56	190
Kain, Walter M., Bordentown, N. J. Valise	451,055	Apr. 28	2191	541	55	449

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Kaiser, Fredrick, Knoxville, Tenn. Pipe-coupling.....	448,765	Mar. 24	2452	613	54	1610
Kaiser, Fredrick, Knoxville, Tenn. Ammonia-absorber.....	452,273	May 12	1334	333	55	834
Kaiser, Frederick K., Wilmington, Del. Combined ice pick, shaver, and scoop.....	458,463	Aug. 25	2506	609	56	1029
Kaiser, Joseph H., and A. B. Ledwith, Brownsville, Pa. Electric time-lock.....	447,409	Mar. 3	225	58, 59	54	1160
Kaiser, Thomas E., and J. Wilkinson, Oshawa, Canada. Invalid-bed.....	464,158	Dec. 1	227	54	57	1179
Kalamazoo Spring and Axle Company. (See Bidwell, Joseph E., assignor.)						
Kalbach, Morgan D., Lebanon, Pa. Jack-screw.....	452,225	May 12	1262	318	55	821
Kalbach, Morgan D., Lebanon, Pa. Baggage and parcel carrier.....	460,392	Sept. 29	2903	725	56	1653
Kaldenberg, Frederick J., Tarrytown, N. Y. Pen-holder.....	446,646	Feb. 17	1861	462	54	894
Kalish, Henry C. (See Noble, William H., assignor.)						
Kalteyer, George H., San Antonio, Tex., and G. W. Bartholemew, Jr., Bellefontaine, Ohio; said Kalteyer assignor to H. S. Bartholemew, Bristol, Conn. Preparing and tempering slurry for Portland cement.....	460,509	Sept. 29	3090	.....	56	1690
Kam, Joseph, Buffalo, N. Y. Dry-kiln for malting.....	450,237	Apr. 14	893	222	55	178
Kamak, Max, New York, N. Y. Pocket-knife.....	455,625	July 7	530	139	56	102
Kammer, John von der, Chicago, Ill. Illuminator for electric lamps.....	457,830	Aug. 18	1472	.....	56	827
Kammerer, Christopher, Boston, Mass. Valve-controlling apparatus.....	451,937	May 12	764	193	55	730
Kammeyer, Carl E., Eau Claire, Wis. Potential-indicator.....	464,025	Dec. 1	33	9	57	1142
Kammeyer, Carl E., Eau Claire, Wis. Transformer and armature-core.....	464,026	Dec. 1	34	10	57	1143
Kammeyer, Carl E., Eau Claire, Wis. Field-magnet for dynamos or motors.....	464,027	Dec. 1	35	10	57	1143
Kane, Alonzo L. (See Kane, Charles I., assignor.)						
Kane, Charles I., New York, N. Y., assignor to A. L. Kane, Milwaukee, Wis. Warp stop-motion for looms.....	446,100	Feb. 10	962	236	54	706
Kane & Co., Thomas. (See Goodrich, Harry C., assignor.)						
Kane, John A., Paterson, N. J. Station-indicator.....	462,138	Oct. 27	2580	643	57	516
Kane, John H., North Adams, Mass. Bicycle.....	446,354	Feb. 10	1400	343	54	790
Kane, Maurice, Chicago, Ill., assignor to Warder, Bushnell & Glessner Company, Springfield, Ohio. Bundle-carrier for grain-binders.....	458,973	Sept. 1	660	{ 161 } { 162 }	{ 56 }	1194
Kane, Maurice, Chicago, Ill., assignor to Warder, Bushnell & Glessner Company, Springfield, Ohio. Tension device for grain-binders.....	462,903	Nov. 10	1091	283	57	771
Kanen, Peter J., Camden, Ark. Nut-lock.....	452,865	May 26	2288	574	55	1033
Kann, William L., Allegheny, assignor to Pittsburg Crushed Steel Company, Limited, Pittsburg, Pa. Apparatus for working stone.....	461,221	Oct. 13	1056	267	57	210
Kannestine, Louis, assignor of twelve twenty-fifths to A. R. Thickitt and W. Pelkus, St. Louis, Mo. Cable-grip.....	464,878	Dec. 8	1337	335	57	1400
Kannmacher, George J., Rockford, Ill. Horse-blinder.....	461,957	Oct. 27	2309	572	57	465
Kansas City Hay Press Company. (See Hampton, John A., assignor.)						
Kanzler, Charles, Saginaw, Mich. Combined bed-clothes and baby-holder.....	454,479	June 23	1952	509	55	1545
Kapinos, Benjamin. (See Krejci and Kapinos.)						
Kapler, Carl G. W., Berlin, Germany. Roller grinding-mill.....	447,951	Mar. 10	1115	{ 280 } { 281 }	{ 54 }	1336
Kapp, John O., Pee, Ohio. Apparatus for carrying packages, &c.....	448,050	Mar. 10	1280	326	54	1368
Karfiel, Benzion, assignor to K. Karfiel, New York, N. Y. Machine for the manufacture of lace-paper.....	461,758	Oct. 20	1976	489	57	392
Karfiel, Kathie. (See Karfiel, Benzion, assignor.)						
Karle, John, Baltimore, Md. Ash-sifter.....	445,784	Feb. 3	444	111	54	599
Karmin, Valerian, St. Petersburg, Russia. Safety-velocipede.....	465,861	Dec. 29	2956	755	57	1737
Karn, Edwin B., Amherst, assignor of one-half to C. Hamilton, Britain, S. D. Band-cutter and feeder.....	445,835	Feb. 3	537	131	54	616
Karnes, Samuel F., and P. Nichols, Harvey's, Pa. Tools for straightening Artesian wells.....	451,274	Apr. 28	2557	630	55	520
Karr, Francis, Chicago, Ill. Pillow-sham holder.....	444,981	Jan. 20	1622	415	54	333
Kartavert Manufacturing Company. (See Robinson, Charles W., assignor.)						
Karthaus, Wilhelm. (See Bockmühl and Karthaus.)						
Kase, Edwin S., and A. F. Berden, Danville, Pa. Automatic railway-switch.....	448,923	Mar. 24	2686	676	54	1656
Kaselowsky, Emil, Berlin, Germany. Igniting device for gas or petroleum motors.....	463,231	Nov. 17	1603	418	57	878
Kaskel, Albert, New York, N. Y. Necktie.....	459,068	Sept. 8	819	199	56	1232
Kassebaum, John A., and M. D. Darr; said Kassebaum assignor to A. W. Wickham, Salina, Kans. Incrustation-preventive.....	453,644	June 9	736	.....	55	1295
Kassel, Edward T., assignor of one-half to C. E. Riker, New York, N. Y. Atomizer.....	446,256	Feb. 10	1251	305	54	759
Kassing, Rudolph D., St. Louis, Mo. Steam-boiler.....	450,940	Apr. 21	1997	491	55	404
Kastler, Nicholas, La Porte, Ind. Buggy-body.....	444,070	Jan. 6	143	36	54	31
Kator, Jeremiah H., Detroit, Mich. Name-plate pattern.....	445,785	Feb. 3	445	111	54	599
Katt, Diedrich. (See Brown, Frank, assignor.)						
Kauderer, Andrew, Buffalo, N. Y. Steel-capped bullet.....	450,623	Apr. 21	1485	364	55	299
Kaufert, Frank H. J., Minneapolis, Minn. Folding tent.....	465,084	Dec. 15	1704	{ 433 } { 434 }	{ 57 }	1479
Kauffelt, John E., assignor of four-fifths to E. H. Gerry, W. H. Green, G. Bortner, E. E. Allen, and S. Eaton, Shrewsbury, Pa. Car-coupling.....	450,238	Apr. 14	894	222	55	178
Kaufmann, Adolph, et al. (See Deming, Edward, assignor.)						
Kaufmann, John. (See Kline, John A., assignor.)						
Kautz Chemical Co. (See Kautz, Jacob C., assignor.)						
Kautz, George, Albany, N. Y. Scaffold-horse.....	460,583	Oct. 6	63	17	57	11
Kautz, Jacob C., assignor to Kautz Chemical Co., Mason, W. Va. Purifying bromine.....	461,681	Oct. 20	1851	459	57	368
Kavanagh, Peter T., Chicago, Ill. Billiard-table attachment.....	462,843	Nov. 10	994	257	57	752
Kavanagh, Thomas P., Kansas City, Mo., assignor to American Biscuit and Manufacturing Company, Chicago, Ill. Manufacture of candy.....	452,793	May 26	2181	.....	55	1013
Kay, Adam, assignor to Kay & Co., Georgetown, Canada. Circular-knitting machine.....	451,713	May 5	409	100	55	656
Kay & Co. (See Kay, Adam, assignor.)						
Kay, George, F. Wilkinson, and R. Fisher, Jamestown, N. Y. Roundabout.....	448,241	Mar. 17	1581	{ 403 } { 404 }	{ 54 }	1437
Kay, Joseph, Leeds, England. Lock.....	449,160	Mar. 31	3050	771	54	1734
Kaye, Samuel, Yazoo City, Miss. Hoisting apparatus.....	462,438	Nov. 3	353	87	57	647
Kaylor, John T., J. W. McComb, and W. T. Daniel, Graham, Ala. Tire-shrinker.....	458,172	Aug. 25	2025	525	56	939
Kays, Hugh. (See Paskel, Russel, assignor.)						
Kayser, Adolf, Buffalo, N. Y., assignor to Kayser Patent Company, of New Jersey. Manufacture of caustic alkali, &c.....	454,136	June 16	1430	{ 374 } { 375 }	{ 55 }	1437
Kayser, Adolf, Buffalo, N. Y., assignor to Kayser Patent Company, of New Jersey. Making sodium aluminate.....	454,137	June 16	1435	.....	55	1437
Kayser, Johanna. (See Kayser, Joseph, assignor.)						
Kayser, Joseph, assignor to J. Kayser, New York, N. Y. Apparatus for coating paper.....	445,955	Feb. 3	715	{ 174 } { 175 }	{ 54 }	652
Kayser Patent Company. (See Kayser, Adolf, assignor.)						
Kayser, William J., Milwaukee, Wis. Damper.....	454,967	June 30	2782	709	55	1705
Kea, John W., Shongaloo, La. Nose-band for animals.....	453,259	June 2	127	34	55	1172

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Keagle, Edward M., and W. L. Follmer, Milton, Pa. Plumb-level	460,749	Oct. 6	348	85	57	69
Kean, Otis H., Washington, D. C. Revolving show-case	452,377	May 19	1511	374	55	877
Kearney, Benjamin S., assignor of one-half to N. Y. Gulley, Franklinton, N. C. Tobacco-stringer	446,231	Feb. 10	1188	291	54	747
Kearney, Benjamin S., assignor of one-half to N. Y. Gulley, Franklinton, N. C. Wagon end-gate	446,232	Feb. 10	1189	291	54	747
Kearney & Foot Company. (See Weed, Alfred, assignor.)						
Kearney, Patrick J., assignor of one-half to T. Ryan, Chicago, Ill. Apparatus for removing garbage	449,421	Mar. 31	3514	885	54	1818
Kearns, Isaac F., Chicago, Ill. Safety-valve	447,523	Mar. 3	424	104	54	1197
Kearsing, John G., Newark, N. J. Hinge	465,112	Dec. 15	1761	445	57	1489
Keating, John D., Springfield, Mass. Velocipede	465,934	Dec. 29	3079	790	57	1761
Keatinge, John R. (See Birch, Joseph W., assignor.)						
Keats, John, Bagnall, near Stoke-upon-Trent, England. Machine for winding thread upon disk-holders	456,671	July 28	2192	580 581	56	444
Keats, Socrates, Toess, near Winterthur, Switzerland. Rotary shuttle for sewing-machines	465,113	Dec. 15	1762	445 446	57	1489
Keck, Christian, Cincinnati, Ohio. Burnishing-machine	454,480	June 23	1953	509	55	1545
Keck, Christian, assignor to W. H. Christie, Cincinnati, Ohio. Book-binder's press	450,886	Apr. 21	1929	473	55	389
Keck, Christian, and F. Buob, Cincinnati, Ohio. Expansion-pulley	464,798	Dec. 8	1229	306	57	1378
Keefe, James E., Chicago, Ill. Device for holding tooth or nail brushes	459,584	Sept. 15	1643	411	56	1400
Keefer, William B. (See Proctor and Keefer.)						
Keefer, William B., Philadelphia, Pa. Ingrain carpet fabric	444,837	Jan. 20	1349	350	54	280
Keegan, Peter F., et al. (See Johns, Will R., assignor.)						
Keehn, Edward L. (See Pearse and Keehn.)						
Keeler, Calvin, Hobart, N. Y. Device to prevent railway-rails from spreading	445,449	Jan. 27	2330	605	54	480
Keeler, David L., Grand Rapids, Mich. Toy swing	449,938	Apr. 7	439	109	55	86
Keeler, Elisha S., Topeka, Kans. Seed-planter	454,216	June 16	1551	408	55	1460
Keeler, Elisha S., Topeka, Kans. Seed-planter	454,217	June 16	1553	408 409	55	1460
Keeler, Ezra W., San Francisco, Cal. Panoramic device	446,524	Feb. 17	1679	410	54	858
Keeler, Herbert E., et al. (See Beery, Samuel M., assignor.)						
Keely, Thomas, Memphis, Tenn. Waste-pipe	444,297	Jan. 6	498	130	54	99
Keen, William M. B., assignor of one-half to W. Hodgkiss, New York, N. Y. Incandescent-lamp socket	452,306	May 12	1382	343 344	55	843
Keen, William M. B., and W. F. Haarmann, assignors of one-fourth to E. Le Fevre, New York, N. Y. Manufacture of carbon filaments	445,374	Jan. 27	2219	.....	54	459
Keen, William M. B., and W. F. Haarmann, assignors to E. Le Fevre and said Keen, New York, N. Y. Incandescent electric lamp	452,305	May 12	1381	343	55	843
Keena, Daniel A., Eagle Grove, Iowa. Baling-press	444,194	Jan. 6	353	86, 87	54	71
Keenan, James R., et al. (See Miller, Frank, assignor.)						
Keene, Joseph, assignor to Chicago Spring Bttt Company, Chicago, Ill. Door-check	454,360	June 16	1765	459	55	1500
Keene, M. W. (See Hatchor, William A., assignor.)						
Keene, Samuel D., assignor of three-fourths to H. N. Fenner, Providence, E. G. Blodgett, E. W. Orswell, Pawtucket, R. I., and Holyoke Machine Company, Holyoke, Mass. Bobbin	465,045	Dec. 15	1636	416	57	1466
Keener, Edwin T., Moberly, Mo. Shutter-fastener	459,292	Sept. 8	1167	294	56	1300
Keener, George I., Morgantown, W. Va. Dental anodyne	457,201	Aug. 4	423	.....	56	612
Keeney, Charles H., assignor of two-thirds to C. K. Pier and I. Lester, Milwaukee, Wis. Self-closing gas-burner	452,140	May 12	1124	285	55	793
Keenholts, Alida. (See Keenholts, George, assignor.)						
Keenholts, George, assignor to A. Keenholts, Philadelphia, Pa. Spring bed-bottom	447,133	Feb. 24	2658	659	54	1055
Keep, James M., New York, N. Y., assignor to E. I. Scott, Philadelphia, Pa. Roll-paper holder and cutter	464,972	Dec. 15	1492	375	57	1440
Keep, William J., Detroit, Mich., assignor to Michigan Stove Company. Oven-door opening and closing mechanism	455,750	July 14	744	195	56	152
Kees, Frederick, Minneapolis, Minn. Corner-strip	448,187	Mar. 10	1480	377	54	1409
Keesse, Will E., Winnebago, Wis. Plow	460,292	Sept. 29	2732	686	56	1625
Keesling, Stephen C., et al. (See Reed, Frankliu M., assignor.)						
Kehr, Cyrus, Lakeside, Ill. Machine for weaving coiled-wire fabric	463,993	Nov. 24	2828	733 734	57	1120
Kehr, Cyrus, Lakeside, Ill. Machine for weaving coiled-wire fabric	464,939	Dec. 8	1417	357 358	57	1415
Kehr, Cyrus, Lakeside, Ill. Machine for weaving coiled-wire fabric	464,940	Dec. 8	1426	358 359	57	1417
Keifel, Fred. W., Jr., assignor to E. Scanlan, Louisville, Ky. Fire-place fender	445,811	Feb. 3	506	122	54	610
Keighley, Charles W., and T. B. and W. Netherwood, Huddersfield, England. Machine for cutting the pile of welt pile fabrics	462,356	Nov. 3	220	53 54 55 56	57	593
Keighley, Thomas B. (See Keighley and Netherwood.)						
Keil, Henry F., New York, N. Y. Door-knob	417,613	Mar. 3	556	138	54	1222
Keil, Louis O., Birmingham, Ala. Badge	464,365	Dec. 1	564	138	57	1242
Keim, Ephraim. (See Freiburghouse, Edward W., assignor.)						
Keim, Thomas B. (See Cox and Keim.)						
Keiper, John F., Denver, Colo. Separator	463,514	Nov. 17	2044	536	57	965
Keiper, John F., Denver, Colo. Slag-pot	463,515	Nov. 17	2045	536	57	965
Keith, Charles E., Bridgeport, Conn. Paddle-wheel	454,652	June 23	2244	576	55	1596
Keith, Charles H., Big Stone City, S. D. Paper box	462,713	Nov. 10	781	203	57	710
Keith, Elmer L., Brockton, Mass. Laced boot or shoe	451,694	May 5	385	94	55	652
Keith, Horace M., Commerce, Mich. Machine for separating and assorting potatoes	448,434	Mar. 17	1914	481	54	1501
Keith, Jeremiah, North Middleborough, assignor to F. P. Stanley, Swampscott, Mass. Machine for buttoning boots	458,835	Sept. 1	446	107	56	1150
Keith, Myron L., Campello, Mass. Sole-fitting machine	448,435	Mar. 17	1916	482	54	1501
Keith, Myron L., Campello, Mass. Sole-channeling machine	448,436	Mar. 17	1918	482 483	54	1502
Keith, Myron L., Campello, Mass. Outer-soleing welted boots or shoes	449,882	Apr. 7	355	90	55	71
Keith, Truman D., South Pasadena, Cal. Wrench	447,952	Mar. 10	1117	281	54	1336
Koleher, James, Belding, Mich. Braid-frame	453,119	May 26	2710	683	55	1115
Kellar, Edward C. (See Kellar, Warner L. and E. C.)						
Kellar, Warner L. and E. C., Azusa, Cal. Adjustable extension revolver-stock	461,480	Oct. 20	1533	376	57	309
Kellberg, John C., assignor of one-half to W. F. Jordan and J. J. McLaurin, Harrisburg, Pa. Chromatic-printing press	450,369	Apr. 14	1106	270 271	55	218
Keller, Charles, and J. Conly, Springdale, Pa. Machine for cutting and spreading glue	452,075	May 12	1012	255	55	774

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Keller, Emil E., Chicago, Ill. Conduit for electric railways.....	458,630	Sept. 1	128	28	56	1091
Keller, Emil E., Chicago, Ill. Underground-railway conduit.....	460,780	Oct. 6	394	96	57	77
Keller, Emil E., Chicago, Ill. Electric-railway trolley.....	460,781	Oct. 6	396	96	57	78
Keller, George. (See Keller, Paul and G.)						
Keller, George J., Osceola, Nebr. Pump.....	445,560	Feb. 3	64	15	54	524
Keller, Henry. (See Ellis, George H., assignor.)						
Keller, Herbert E., et al. (See Beery, Samuel M., assignor.)						
Keller, Jasper N., Newton, and J. A. McCoy, Somerville, assignors to New England Telephone and Telegraph Company, Boston, Mass. Cable-box for electric wires.....	459,523	Sept. 15	1544	{ 385 386 502 503 }	{ 56 57 }	1381
Keller, Jeremiah, Sandusky, Ohio. Grain-binder.....	461,794	Oct. 20	2037	{ 502 503 }	{ 57 58 }	403
Keller, Josiah O., Fort Wayne, Ind. Dental-engine band-piece.....	462,409	Nov. 3	311	77	57	610
Keller, Paul and G., Rudolstadt, Germany. Constructive apparatus.....	452,274	May 12	1335	333	55	835
Kellermann, Charles H., Kenosha, Wis., assignor to Chicago Brass Company, Chicago, Ill. Organ-reed.....	463,745	Nov. 24	2436	639	57	1046
Kelley, Charles, Toronto, Canada. Table-knife.....	465,138	Dec. 15	1808	457	57	1497
Kelley, Charles, Toronto, Canada. Combined air-trap and seat for privy-vaults.....	465,862	Dec. 29	2957	755	57	1737
Kelley, Fred H. (See Blair and Kelley.)						
Kelley, George W., Goshen, Ind. Carpet-sweeper.....	449,541	Mar. 31	3694	928	54	1853
Kelley, Harry E., Niagara Falls, assignor to Oneida Community, Limited, Kenwood, N. Y. Swivel.....	449,324	Mar. 31	3334	841	54	1784
Kelley, John I., Springfield, Mass. Guiding and gaging implement for masons.....	458,464	Aug. 25	2508	{ 610 611 }	{ 56 57 }	1029
Kelley, John W., Columbus, Ga. Sully.....	449,542	Mar. 31	3695	929	54	1853
Kelley, Joseph D., and W. L. Woods, assignors of one-third to S. C. Halfpenny, Baltimore, Md. Elevator.....	454,945	June 30	2746	700	55	1698
Kelley, Mark L., Boston, Mass. Pattern-plate for marking cloth.....	455,338	July 7	51	15	56	13
Kelley, Samuel E., assignor to Payton & Kelley, Providence, R. I. Chain-snap.....	459,364	Sept. 8	1279	316	56	1322
Kelley, Samuel W., Cleveland, Ohio. Toy parachute.....	444,441	Jan. 13	719	188	54	150
Kelley, Thomas W., Brooklyn, N. Y. Inking apparatus for printing-presses.....	463,864	Nov. 24	2625	684	57	1082
Kelliher, Alfred T., Bethel, Me. Lumber-carrier.....	448,766	Mar. 24	2453	613	54	1610
Kellogg, Albert A., Holyoke, Mass. Mechanism for operating stuff-gates.....	444,555	Jan. 13	908	236	54	189
Kellogg, Benjamin, Peoria, Ill. Automatic car-brake and brake-governor.....	446,525	Feb. 17	1680	410	54	858
Kellogg, Fordyce L., et al. (See Pollard, James M., assignor.)						
Kellogg, Henry, New Haven, Conn. Making water-proof composition from linseed-oil.....	455,286	June 30	3352	.....	55	1816
Kellogg, James F., Mitchell, S. D. Pole-tip.....	444,442	Jan. 13	720	189	54	150
Kellogg, Joseph A., Nashville, Tenn. Mail-bag catcher.....	458,173	Aug. 25	2026	525	56	940
Kellogg, William H., Lawton, assignor of one-half to W. A. Forbes, Kalamazoo, Mich. Car-coupling.....	460,510	Sept. 29	3091	772	56	1690
Kellogg, William P., Troy, N. Y. Adjustable stop for boring-machines.....	454,051	June 16	1308	341	55	1414
Kellow, Joseph, Brooklyn, N. Y. Wash-tub.....	445,643	Feb. 3	202	53	54	552
Kellow, Joseph, Brooklyn, N. Y. Stone-dressing machine.....	445,644	Feb. 3	203	54	54	552
Kelly, Adam, Smithfield, R. I. Temperature-regulator.....	457,280	Aug. 4	558	{ 147 148 }	{ 56 57 }	636
Kelly, Carlos C., Claysville, Ohio. Calendar.....	449,543	Mar. 31	3697	929	54	1853
Kells, Charles E., Jr., New Orleans, La. Electro-magnetic engine.....	453,260	June 2	128	34	55	1172
Kelly, David B., Chicago, Ill. Belting-joint.....	460,799	Oct. 6	416	102	57	82
Kelly, Frederick M., et al. (See Stein, Samuel P., assignor.)						
Kelly, George, Chicago, Ill. Hanger for wire lathing.....	445,836	Feb. 3	539	131	54	616
Kelly, George A., Stillwater, Minn. Balanced steam-valve.....	463,156	Nov. 17	1492	386	57	857
Kelly, Henry M., et al. (See Walter, Charles F., assignor.)						
Kelly, James J., Baltimore, Md. Bag-printing machine.....	455,404	July 7	167	43, 44	56	36
Kelly, John D., Kendallville, Ind. Rinsing-tub.....	459,635	Sept. 15	1743	438	56	1418
Kelly, John F. (See Stanley and Kelly.)						
Kelly, John F. (See Willis, William B., assignor.)						
Kelly, John L., Fremont, Iowa. Scaffold.....	464,177	Dec. 1	255	63	57	1184
Kelly, Martin, Chicago, Ill. Folding bed.....	461,481	Oct. 20	1534	376	57	309
Kelly, Oliver S. (See Green, George F., assignor.)						
Kelly, Patrick J., Elizabeth, N. J. Milling-machine.....	462,050	Oct. 27	2438	604	57	489
Kelly, Richard A., Webster City, Iowa. Grain-separator.....	466,243	Dec. 29	3581	916	57	1857
Kelly, Timothy. (See Henebry, Patrick F., assignor.)						
Kelly, William E., New Brunswick, N. J. Grate.....	450,315	Apr. 14	1007	{ 249 250 }	{ 55 56 }	200
Kelly, William J. (See Cushing and Kelly.)						
Kelly, William J., assignor to J. P. Cushing, Boston, Mass. Electric switch.....	466,244	Dec. 29	3582	{ 916 917 }	{ 57 58 }	1858
Kelly, William J., assignor to J. P. Cushing, Boston, Mass. Controlling apparatus for incandescent lights.....	466,245	Dec. 29	3585	917	57	1858
Kelsea, George K., assignor of two-thirds to C. H. Hutchins, Detroit, Mich. Card-holder.....	454,277	June 16	1639	431	55	1477
Kelsey, Frank N., Florence, assignor of one-half to G. L. Loomis, Northampton, Mass. Spring-hinge.....	449,366	Mar. 31	3418	859	54	1799
Kelsey, Frank N., Florence, assignor of one-half to G. L. Loomis, Northampton, Mass. Thill-coupling.....	449,367	Mar. 31	3420	860	54	1799
Kelso, George L., Gallatin, Mo. Hog-trough.....	458,031	Aug. 18	1814	473	56	891
Kelty, Gibbons L. (See Carver, James W., assignor.)						
Kelvie, William E. (See Fulmer and Kelvie.)						
Kemble, Bushrod H., Camden, N. J. Axle-lubricator.....	453,838	June 9	1024	267	55	1351
Kemble, Bushrod H., Camden, N. J. Axle-journal and box.....	453,839	June 9	1025	267	55	1351
Kemble, Bushrod H., Camden, N. J. Axle.....	453,840	June 9	1026	268	55	1351
Kemmerer, Henry. (See Satterlee and Kemmerer.)						
Kemp, Charles W., Charleston, Ill. Engineer's order bulletin-board.....	444,211	Jan. 6	373	93	54	75
Kemp, Clarence M., Baltimore, Md. Apparatus for utilizing the sun's rays for heating water.....	451,384	Apr. 28	2706	672	55	549
Kemp, Clifford W., et al. (See Cole, Henry W. and A. F., assignors.)						
Kemp, Edward C., et al. (See Cole, Henry W. and A. F., assignors.)						
Kemp, John M. (See Wynkoop and Kemp.)						
Kempkey, Augustus, San Francisco, Cal. Safety checkrein-hook.....	453,841	June 9	1027	268	55	1351
Kenapster, Daniel E., Boston, Mass. Cash register and indicator.....	450,812	Apr. 21	1805	{ 438 439 81 82 }	{ 55 56 }	367
Kenaga, Samuel C., Chicago, Ill. Corn-harvester.....	447,465	Mar. 3	324	{ 83 84 }	{ 54 55 }	1179
Kenan, Uriah T. (See Kleiser, Adolphe, assignor.)						
Kenary, David J., Cherry Valley, Mass. Fulling-mill.....	452,058	May 12	977	249	55	769

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Kendall, Charles B., Newton, Mass. Can-heading machine	450,624	Apr. 21	1485	{ 364 365 }	55	299
Kendall, Edward D., Brooklyn, N. Y., assignor to himself and International Oil and Refining Company of Michigan. Refining hydrocarbons	451,660	May 5	332		55	642
Kendall, Isaac N., New Westminster, Canada. Band-saw mill	447,953	Mar. 10	1118	{ 281 282 }	54	1337
Kendall, Isaac N., New Westminster, Canada. Pulley	453,315	June 2	211	56	55	1187
Kendall, Oliver S. (See Smith, Fred P., assignor.)						
Kendall, William R., <i>et al.</i> (See Chilson, Libbens, assignor.)						
Kenderdine, William J., assignor of one-half to J. A. Wiedersheim, Philadelphia, Pa. Vaporizer for hydrocarbon or similar fluids	465,668	Dec. 22	2665	680	57	1670
Kendig, Witmer J., Lancaster, Pa. Rotary engine	449,325	Mar. 31	3535	841	54	1784
Kendrick, Colin, Jr., Nevada City, Cal. Valve-gear for ore-stamps	451,765	May 5	497	123	55	672
Kendrick, Francis B., <i>et al.</i> (See Tomlinson, Charles E., assignor.)						
Kendrick, Hiland H., Fulton, N. Y. Straw-cutter attachment	451,056	Apr. 28	2192	{ 541 542 }	55	449
Kendrick, Hiland H., Fulton, N. Y. Straw-cutter	455,105	June 30	3036	771	55	1755
Kendrick, James K. (See Hill, Loren H., assignor.)						
Kendrick, James K., Germantown, Cal. Plane	459,192	Sept. 8	913	219	56	1250
Kendrick, John, Baton Rouge, La. Detachable handle for vessels	452,121	May 12	1094	278	55	788
Kenehan, Gilbert P., assignor, by mesne assignments, to Steel Belt Fastener Company, Cleveland, Ohio. Die for making belt-fasteners	448,835	Mar. 24	2551	640	54	1629
Kenehan, Gilbert P., assignor, by mesne assignments, to Steel Belt Fastener Company, Cleveland, Ohio. Making belt-fasteners	448,836	Mar. 24	2552	640	54	1029
Kenehan, Gilbert P., assignor to Steel Belt Fastener Company, Cleveland, Ohio. Belt-fastener	462,259	Nov. 3	57	14	57	563
Kenehan, Gilbert P., assignor to Steel Belt Fastener Company, Cleveland, Ohio. Process of and die for making belt-fasteners	462,260	Nov. 3	58	14, 15	57	563
Kenehan, Gilbert P., assignor to S. E. Snow, Cleveland, Ohio. Belt-clamp	457,123	Aug. 4	290	76	56	589
Kenfeld, Joel W., assignor to A. H. Andrews & Company, Chicago, Ill. Ventilated spring-seat	462,317	Nov. 3	159	41	57	581
Kenfield, William W., assignor to Rochester Cycle Manufacturing Company, Rochester, N. Y. Bicycle	448,750	Mar. 24	2431	608	54	1606
Kennard, Charles W., <i>et al.</i> (See Bond, Elijah J., assignor.)						
Kennard, Charles W., Baltimore, Md. Talking-board	462,819	Nov. 10	952	248	57	745
Kennedy, Charles, assignor of one-half to J. C. Cromwell, Joliet, Ill. Stone-planing machine	454,481	June 23	1955	{ 509 510 516 517 }	55	1545
Kennedy, Charles E., and G. G. Bennett, La Grange, Ind. Chair	465,275	Dec. 15	2019	517	57	1537
Kennedy, De Lancy, New York, N. Y. Punching-machine	448,525	Mar. 17	2050	513	54	1526
Kennedy, George A., Coaticook, Canada, assignor to Peck, Stow & Wilcox Company, South-ington, Conn. Grooving-machine attachment	450,463	Apr. 14	1241	303	55	243
Kennedy, George A., assignor of five-eighths to P. L. Bockfinger, G. W. Thorp, and C. M. Waterman, Denver, Colo. Car-coupling	461,635	Oct. 20	1782	439	57	355
Kennedy-Groswith Electric Company. (See Groswith, Henry, assignor.) (Reissue.)						
Kennedy, Guy, Osage, Iowa. Air-tight door	458,465	Aug. 25	2510	610	56	1029
Kennedy, Henry G., Berlin, Canada. Chart for drafting garments	451,247	Apr. 28	2508	618	55	511
Kennedy, Hugh, Sharpsburg, Pa. Blast-furnace	457,202	Aug. 4	424	110	56	613
Kennedy, Hugh, Sharpsburg, Pa. Gas regulating and cut-off valve	457,203	Aug. 4	426	{ 110 111 }	56	613
Kennedy, James H., near Milburn, assignor of one-half to A. Allen, Barbreck, La. Fire-escape	461,682	Oct. 20	1852	459	57	368
Kennedy, John, Montreal, Canada. Apparatus for holding dredges in place	445,675	Feb. 3	269	70	54	566
Kennedy, John, Montreal, Canada. Apparatus for holding dredges in place	447,717	Mar. 3	703	176	54	1251
Kennedy, John, Montreal, Canada. Mechanism for operating boom-dipper dredges	453,724	June 9	860	{ 222 223 }	55	1318
Kennedy, John F., Cadiz, Ohio. Egg-separator	460,875	Oct. 6	519	132	57	102
Kennedy, John P., New York, N. Y. Machine for swaging the ends of tubes	457,954	Aug. 18	1690	444	56	868
Kennedy, John P., New York, N. Y. Machine for swaging the ends of tubes	457,955	Aug. 18	1694	444	56	869
Kennedy, John P., New York, N. Y. Machine for swaging the ends of tubes	457,956	Aug. 18	1697	444	56	869
Kennedy, John W., assignor of one-half to F. L. Hughes, Rochester, N. Y. Bicycle-sup-port	446,835	Feb. 17	2153	535	54	953
Kennedy, John W., Des Moines, Iowa, and B. L. Harris, Pittsburg, Pa., assignors to J. W. Kennedy, trustee. Butter-jar	449,326	Mar. 31	3337	842	54	1784
Kennedy, Julian, Latrobe, Pa. Mill appliance	446,526	Feb. 17	1683	{ 411 412 }	54	859
Kennedy, Julian, Latrobe, Pa. Gas-burner	455,214	June 30	3221	{ 817 818 }	55	1791
Kennedy, Julian, Pittsburg, Pa. Rolling-mill	466,051	Dec. 29	3296	{ 841 842 }	57	1803
Kennedy, Julian, Latrobe, and H. Aiken, Pittsburg, Pa. Hydraulic crane. (Reissue)	11,163	May 5	704	{ 177 178 }	55	712
Kennedy, Julian, Latrobe, and H. Aiken, Pittsburg, Pa. Hydraulic crane. (Reissue)	11,164	May 5	711	{ 179 180 }	55	713
Kennedy, Martin, assignor to U. S. Rolling Stock Company, Chicago, Ill. Die-punch for making turn-buckles	444,595	Jan. 13	965	250	54	200
Kennedy, Michael, Troy, N. Y. Coupling for rail-car steam-heating pipes	458,250	Aug. 25	2154	528	56	964
Kennedy, Michael, Philadelphia, Pa. Paw for sewing-machines	460,233	Sept. 29	2653	661	56	1607
Kennedy, Rankin, Kilmarnock, Scotland. Apparatus for heating by electricity	457,561	Aug. 11	1045	268	56	737
Kennedy, Rankin, Kilmarnock, Scotland. Dynamo-electric machine	461,140	Oct. 13	901	{ 233 234 }	57	181
Kennedy, Rankin, Glasgow, Scotland. System of distributing electric energy	461,139	Oct. 13	899	233	57	180
Kennedy, Rankin, assignor of one-half to R. Dick, Glasgow, Scotland. Electrical trans-former	447,569	Mar. 3	488	120	54	1209
Kennedy, Roderick, <i>et al.</i> (See Grant, Daniel, assignor.)						
Kennedy, Thomas, Buffalo, Tex. Wire-stretcher	450,625	Apr. 21	1489	366	55	300
Kennedy, Thomas, deceased, Philadelphia, Pa.; J. Farley, administrator. Wash-basin or like structure	464,327	Dec. 1	508	121	57	1231
Kennedy, Thomas J., Renfrew, Pa. Nut-lock	459,889	Sept. 22	2139	537	56	1502
Kennedy, William R., Washington, D. C. Hand-stamp	456,416	July 21	1773	469	56	355
Kennett, Berryman S., New Albany, Ind. Hub	464,366	Dec. 1	565	139	57	1242
Kenney, John C., assignor of one-half to E. G. Merriam, St. Louis, Mo. Railway freight-car	445,526	Jan. 27	2442	636	54	501
Kenney, Thomas M., Cambridge, Mass., assignor to American Store Service Company, of New York. Conveying apparatus	465,529	Dec. 22	2442	622	57	1628

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Kennish, William, Brooklyn, N. Y. Protector for the ends of beams Kenny, James J., et al. (See Gness, Carl H., assignor.)	462,357	Nov. 3	225	56	57	594
Kenoyer, Edmund L., Hanford, Cal. Windmill	448,348	Mar. 17	1783	{ 450 451	{ 54	1476
Kenoyer, Edmund L., Hanford, Cal. Equalizing device for windmills	455,255	June 30	3280	831	55	1802
Kent, Deville H., St. Paul, Minn. Puzzle	463,903	Nov. 24	2682	698	57	1092
Kent, James W. (See Goosen, Haly, and Kent.)						
Kent, Joseph, London, England. Thermometer	456,417	July 21	1774	469	56	355
Kent, S. W. (See Pullman, Herbert S., assignor.)						
Kent, Stephen S., W. G. Boler, and W. W. Kent, Macon, Ga. Cotton-chopper	447,046	Feb. 24	2528	627	54	1029
Kent, William J., St. Paul, Minn. Machine for forming horseshoe-blanks	446,066	Feb. 10	911	222	54	697
Kent, William W. (See Kent, Boler, and Kent.)						
Kentowski, Iwan, Sohrau, Germany. Steam-engine	449,422	Mar. 31	3517	{ 885 886	{ 54	1819
Kenton Can Company. (See France, Albert L., assignor.)						
Kenward, Spencer W., et al. (See Hughes, John E., assignor.)						
Kenwood Manufacturing Company. (See Townsley, James L., assignor.)						
Kenyon, Bertrand P. (See Billings and Kenyon.)						
Kern, Joseph S., and O. W. Williams, South Bend, Ind. Sandpapering-machine	456,362	July 21	1680	442	56	338
Kenyon, Lowell H., Allegheny, Pa. Connecting-rod	459,097	Sept. 8	873	210	56	1242
Kenyon, Richard W., Acerrington, England. Vise	457,353	Aug. 11	724	185	56	673
Keogh, Thomas, and C. F. Lockman, Springfield, Ohio. Carpet stretcher and tacker	463,746	Nov. 24	2437	639	57	1046
Keopf, William G., et al. (See Balch, Frederick A. and R. W., assignors.)						
Kephart, George E., Tradesville, Pa. Poison or fertilizer distributor	458,232	Aug. 25	2128	551	56	958
Kepler, Henry G., et al. (See Smith and Acker, assignors.)						
Keppel, Valentine S., Holmen, Wis. Buckle	462,670	Nov. 3	695	176	57	685
Ker, Samuel, Washington, D. C. Self-feeding drawing-pen	460,393	Sept. 29	2904	726	56	1654
Kerbaugh, Minor C., assignor to J. W. Douglass, Philadelphia, Pa. Apparatus for making roofing fabric	455,000	June 30	2856	727	55	1720
Kerber, Leopold. (See Mohland and Kerber.)						
Kern, Bernard, Jr., assignor of one-half to F. G. M. Jacquet, Toledo, Ohio. Road-cart	459,495	Sept. 15	1497	375	56	1372
Kern, Ferdinand, Newark, N. J., assignor of three-fourths to Heilner & Strauss, New York, N. Y. Shuttle-actuating mechanism for duplex-needle sewing-machines	447,880	Mar. 10	998	252	54	1313
Kernan, Francis, Jr., and W. H. Landers, Utica, N. Y., assignors to Kernan Furnace Company, of New York. Hot-air furnace	448,783	Mar. 24	2479	620	54	1616
Kernan Furnace Company. (See Kernan and Landers, assignors.)						
Kerueckel, Jacob G., Kansas City, Mo. Sash-cord fastener	444,534	Jan. 13	873	227	54	182
Kerngood, William J., and B. M. Friedmann, Baltimore, Md. Cigarette mouth-piece	456,333	July 21	1631	432	56	329
Kerns, George A., Victoria, Tex. Stirrup	444,298	Jan. 6	499	130	54	99
Kerns, Simon A. (See Head and Kerns.)						
Kerr Bag Manufacturing Company. (See Kerr, William H., assignor.)						
Kerr, Edward, Pittsburg, Pa. Furnace	462,876	Nov. 10	1047	{ 271 272	{ 57	762
Kerr, Edward, Pittsburg, Pa. Furnace	462,877	Nov. 10	1048	272	57	763
Kerr, George A., Louisville, Ky. Twine-cutter	453,009	May 26	2530	640	55	1080
Kerr, George G., Portland Mills, Pa. Saw-handle	458,292	Aug. 25	2237	547	56	978
Kerr, Hugh, New York, N. Y. Belt-fastener	456,992	Aug. 4	100	25	56	552
Kerr, Isaac K., Eau Claire, Wis. Snow-plow and rutter	456,576	July 28	2030	537	56	412
Kerr, John A., New York, N. Y. Belt-fastener	456,993	Aug. 4	102	25	56	553
Kerr-Murray Manufacturing Company. (See Crighton, William, assignor.)						
Kerr Thread Company. (See Davis and Brown, assignors.)						
Kerr, Walter C., New York, N. Y., assignor to Steam Loop and Separator Company, Chicago, Ill. Steam-loop connection for steam-boilers	456,672	July 28	2194	{ 581 582	{ 56	444
Kerr, William, Philadelphia, Pa. Feed-water heater and purifier for boilers	447,881	Mar. 10	998	252	54	1314
Kerr, William H., Durham, N. C. Making bags	445,329	Jan. 27	2156	558	54	446
Kerr, William H., Durham, assignor to Kerr Bag Manufacturing Company, Concord, N. C. Bag-making machine	445,351	Jan. 27	2190	{ 567 568 569	{ 54	453
Kerry, Aaron, Marysville, Mich. Holdback-iron	457,725	Aug. 11	1293	337	56	784
Kerry, Aaron, Marysville, Mich. Thill-coupling	458,107	Aug. 18	1922	499	56	914
Kerry, Aaron, Marysville, Mich. Holdback-iron	466,079	Dec. 29	3332	850	57	1810
Kersey, Samuel B., Greensborough, N. C. Cabinet for molasses-measures	447,643	Mar. 3	603	{ 148 149	{ 54	1231
Kersh, Thomas E., Palestine, Tex. Shovel-plow	466,060	Dec. 29	3310	845	57	1806
Kersbaw, John W., Jr., Burnside, Iowa. Rotating grain-measurer	462,560	Nov. 3	540	132	57	654
Kershaw, William, Leeds, England. Apparatus for turning over the leaves of music	465,324	Dec. 15	2096	{ 535 536	{ 57	1552
Kershner, Daniel A., Jonesborough, Ark. Wrench	457,050	Aug. 4	172	43	56	566
Kerstan, John F., assignor of one-half to R. N. Dunn, Philadelphia, Pa. Heddle-controlled stop-motion for looms	462,927	Nov. 10	1142	295	57	780
Kerstan, Max, Boston, Mass. Safety device for overhead electric wires	450,626	Apr. 21	1490	377	55	300
Kerstein, Max, assignor of two-thirds to H. Cramer and R. Fabery, Boston, Mass. Electric-railway switch	466,101	Dec. 29	3366	{ 859 860	{ 57	1816
Kersten, Mayzell, Savanna, Ill. Tail-piece for guitars	463,631	Nov. 24	2263	596	57	1014
Kerstetter, Thomas J., East Brady, Pa. Vehicle-seat	445,853	Feb. 3	565	138	54	632
Kerwin, John, Beckwith, Cal. Lever-power mechanism	462,490	Nov. 3	422	103	57	631
Keser, Louis, Jr. (See Paquet, Dimondni, assignor.)						
Kessler, George. (See Eberly, Sylvester, assignor.)						
Kesling, Henry L., Ironton, Mo. Portable fence	457,647	Aug. 11	1173	301	56	761
Kessler, Francis H., San Francisco, Cal. Stone saw mill	451,199	Apr. 28	2431	601	55	495
Kessler, Aloysius. (See Friedrich and Kessler.)						
Kessler, Frank J., Toledo, Ohio. Tricycle	461,207	Oct. 13	1027	260	57	203
Kessler, Loui, assignor of one-half to F. Harbach, Des Moines, Iowa. Hydropneumatic engine	451,824	May 5	578	{ 142 143	{ 55	689
Kessler, Richard Y., Zenobia, Ill. Wagon end-gate	458,108	Aug. 18	1923	500	56	914
Kessner, Otto A., Newark, N. J., assignor to Hanson & Van Winkle Company, of New Jersey. Rheostat	460,972	Oct. 13	672	173	57	138
Ketcham, William, Gladewater, Tex. Dry-kiln furnace	460,050	Sept. 22	2373	593	56	1545
Ketchum, Frank S., New York, N. Y. Track-fastener	453,826	June 9	1085	283	55	1302
Ketchum, Frank S., New York, N. Y. Feed-bag	457,066	Aug. 4	244	63	56	580
Ketchum, Frank S., New York, N. Y. Marking-pot	457,120	Aug. 4	285	75	56	588
Kothledge, Seth, Norfolk, Nebr. Scale-beam	448,437	Mar. 17	1921	483	54	1502
Ketley, Charles B. (See Willmott, Charles, assignor.)						
Kenfelf & Esser Company. (See Cox, William, assignor.)						
Kenfelf, William, et al. (See Pauli, John, assignor.)						
Keyes, Benjamin B., Chelsea, Mass. Socket for incandescent electric lamps	455,287	June 30	3354	846	55	1816

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Keyes, Benjamin B., Chelsea, assignor to J. S. Potter, Newton, Mass. Electric switch....	445,146	Jan. 20	1882	486	54	383
Keyes, Frank E., Lockport, N. Y., assignor to United Indurated Fibre Company, Portland, Me. Composition for waterproofing pulp and other fibrous articles.....	458,534	Aug. 25	2624	56	1052	
Keyes, Herbert A., La Grange, Ill. Twine-holder.....	455,439	July 7	224	58	56	46
Keyes, James A. (See Ehrlich and Keyes.)						
Keys Corn Harvester and Machinery Manufacturing Company. (See Keys, John, assignor.)						
Keys, John, Beloit, Kans., assignor to Keys Corn Harvester and Machinery Manufacturing Company, Denver, Colo. Corn-harvester.....	449,652	Mar. 31	3886	972	54	1888
Keys, William W., Bridgeport, Conn. Melting-furnace.....	452,794	May 26	2182	546	55	1013
Keyser, George W., Indianapolis, Ind. Flushing-tank.....	460,536	Sept. 29	3137	784	56	1700
Keystone Battery and Electric Supply Company. (See Linville, Samuel R., assignor.)						
Keystone Battery and Electric Supply Company. (See Linville and Hottmausperger, assignors.)						
Keystone Manufacturing Company. (See Myers, Charles H., assignor.)						
Keystone Wagon Company. (See Klees, James A., assignor.)						
Keystone Watch Case Company. (See Chappatte, Edward C., assignor.)						
Keystone Watch Case Company. (See Faxon, Frank G., assignor.)						
Keystone Watch Case Company. (See Hogan, John J., assignor.)						
Keystone Watch Case Company. (See Johanson, Olof, assignor.)						
Keystone Watch Case Company. (See Klahn, Emil, assignor.)						
Keystone Watch Case Company. (See Mink, Fritz, assignor.)						
Keystone Watch Case Company. (See Moore, Nicholas, assignor.)						
Keyworth, Thomas R., Jr., assignor of three-fourths to A. G. Myers, New York, N. Y., and W. C. Keyworth, Paterson, N. J. Ball cock-valve.....	449,351	Mar. 31	3380	852	54	1792
Keyworth, William C., et al. (See Keyworth, Thomas R., Jr., assignor.)						
Kiah, Jerome G., Sand Beach, Mich. Propelling device for boats.....	464,973	Dec. 15	1494	375	57	1440
Kibbe, George C., Jr., New York, N. Y. Garment-supporter.....	449,817	Apr. 7	266	68	55	53
Kibbe, I. P. (See McNeill, Charles D., assignor.)						
Kibbee, Enos. (See Epps and Kibbee.)						
Kibler, John B., Minneapolis, Minn. Grindstone.....	446,920	Feb. 24	2317	576	54	991
Kibler, John B., Minneapolis, Minn. Electrical walking toy.....	455,545	July 7	398	104	56	77
Kidd, Edward Z., Deadwood, S. D. Sash-holder.....	455,215	June 30	3223	818	55	1791
Kidd, John S., Des Moines, Iowa. Wagon dump and elevator.....	447,190	Feb. 24	2783	688	54	1077
Kidd, John S., Des Moines, Iowa. Wagon dump and elevator.....	447,191	Feb. 24	2786	689	54	1078
Kidd, John S., Des Moines, Iowa. Wagon-dump and elevator.....	449,680	Apr. 7	49	12	55	11
Kidd, Thomas A., Rahway, N. J. Boiler.....	443,997	Jan. 6	18	5	54	7
Kidd, W. C., et al. (See Goetz, Victor J., assignor.)						
Kidd, William, Fisherman's Bay, Cal. Crosscut-saw.....	462,768	Nov. 10	865	227	57	726
Kidd, William C. (See Suffern and Kidd.)						
Kidder, Francis M., Chicago, Ill. Knob attachment.....	459,444	Sept. 15	1420	356	56	1358
Kidder, Joshua R., Burton, Ohio. Lounge.....	452,971	May 26	2470	625	55	1068
Kidder Press Manufacturing Company. (See Kidder, Wellington P., assignor.)						
Kidder, Richard E., Worcester, Mass. Guide for saw-benches.....	456,380	July 21	1718	455	56	344
Kidder, Wellington P., Boston, Mass., assignor to Kidder Press Manufacturing Company, of Connecticut. Machine for making and printing tags.....	452,076	May 12	1016	255	55	774
Kidder, Wellington P., assignor, by mesne assignments, to Tilton Manufacturing Company, Boston, Mass. Type-writing machine.....	464,504	Dec. 8	763	186	57	1289
Kiddier, James. (See Kiddier, Thomas, J., and J. W.)						
Kiddier, John W. (See Kiddier, Thomas, J., and J. W.)						
Kiddier, Thomas, J., and J. W., Nottingham, England. Traverse-warp knitting-machine.....	462,878	Nov. 10	1049	272	57	763
Kidney, William F., assignor of one-half to C. S. St. John, Brooklyn, N. Y. Automatic feeding apparatus for printing-machines.....	455,020	June 30	2886	733	55	1726
Kiefer, William F., Newark, N. J. Line or rope holder.....	465,577	Dec. 22	2525	734	57	1644
Kiehl, Joseph S. (See Meyer, Kiehl, and Grant.)						
Kiekenapp, Frederick H., Faribault, Minn. Collar-fastener.....	460,234	Sept. 29	2654	661	56	1607
Kiekenapp, Frederick H., assignor of one-half to G. Westermann, Faribault, Minn. Crupper.....	451,561	May 5	177	43	55	613
Kiernan, Eugene H., Hoboken, N. J. Spinning-jenny.....	453,399	June 2	339	88	55	1211
Kierson, George F., and A. K. Young, Allegheny, Pa. Automatic burglar-alarm and door-bell.....	448,051	Mar. 10	1281	327	54	1368
Kieswetter, Joseph F., Toledo, Ohio. Carpet-raveling machine.....	456,147	July 21	1333	353	56	272
Kilborn, Alden D., Oakland, and C. Young, Sacramento, Cal. Metallic packing.....	466,170	Dec. 29	3478	354	57	1838
Kilbourn Electric Company. (See Kilbourn, Washington H., assignor.)						
Kilbourn, Frederick H., et al. (See Conly, Mahlon S., assignor.)						
Kilbourn, Washington H., assignor to Kilbourn Electric Company, Greenfield, Mass. Device for stopping engines.....	457,237	Aug. 18	1486	387	56	830
Kilbourn, Washington H., assignor to L. J. Gunn, G. E. Rogers, and H. O. Edgerton, Greenfield, Mass. Electric stop mechanism.....	457,838	Aug. 18	1487	387	56	830
Kildoyle, Storm E., Syracuse, N. Y. Nut-lock.....	462,643	Nov. 3	664	168	57	679
Kiler, Charles M., assignor of one-half to R. E. Poindexter, Indianapolis, Ind. Wire fastener and tightener.....	445,330	Jan. 27	2157	559	54	447
Kiler, Charles M., assignor of one-half to R. E. Poindexter, Indianapolis, Ind. Wire fence.....	457,159	Aug. 4	346	88	56	599
Kiler, Charles M., and R. E. Poindexter, Indianapolis, Ind. Fence.....	453,148	May 26	2759	695	55	1123
Killam, Henry, New Haven, Conn. Carriage-pole fastening.....	455,946	July 14	1044	273	56	207
Killeen, Peter J., Jr., and P. H. Birmingham, Hartford, Conn. Spinning-die.....	465,578	Dec. 22	2525	643	57	1644
Killenberger, Hubert, Hosskirch, Württemberg, Germany. Walking-cane with removable tobacco-pipe tubes, &c.....	457,160	Aug. 4	348	89	56	609
Killgore, Nathan D., Nickelsville, Va. Washing-machine.....	462,139	Oct. 27	2582	643	57	516
Killingbeck, Charles R., Troy, N. Y. Locomotive-valve.....	453,400	June 2	340	88	55	1211
Killingger, John, Wayne, Pa. Hook.....	445,895	Feb. 3	624	153	54	634
Killingier, Melross M., Battle Creek, Mich. Cockeye.....	446,870	Feb. 24	2222	552	54	974
Killingsworth, Bessie V. (See Killingsworth, Wiley S., assignor.)						
Killingsworth, Wiley S., assignor to B. V. Killingsworth, Laurens, S. C. Gin-saw guard.....	458,466	Aug. 25	2512	611	56	1030
Killion, Daniel. (See Thompson, Frank H., assignor.)						
Killmaster, George B., et al. (See Gillmore, Harmon, assignor.)						
Kilmer, Irving A., Newburg, N. Y. Rod-mill.....	451,673	May 5	353	87	55	646
Kilmer, Irving A., Newburg, N. Y. Rod-mill.....	451,674	May 5	354	87	55	646
Kilmer, William A., Newburg, N. Y. Bale-tie.....	448,964	Mar. 24	2750	694	54	1668
Kilroy, John F. (See Adams, Fred L., assignor.)						
Kilpatrick, Alexander, et al. (See Hnbell, Charles H., assignor.)						
Kiltz, Peter, Rich Hill, Mo. Spring weighing-scale.....	454,052	June 16	1309	341	55	1414

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Kimball, Alonzo, New York, N. Y. Machine for making pin-tickets	457,782	Aug. 18	1394	$\left\{ \begin{smallmatrix} 360 \\ 361 \\ 362 \end{smallmatrix} \right\}$	56	813
Kimball, Arden D., Chicago, Ill. Tug-holder	463,516	Nov. 17	2046	536	57	965
Kimball, Charles M. (See Roemer and Kimball.)						
Kimball, Charles M., Anburndale, Ohio, assignor of one-half to K. Havens, New York, N. Y. Car-pusher	444,443	Jan. 13	721	189	54	151
Kimball, Charles P., <i>et al.</i> (See Bruce, Norman H., assignor.)						
Kimball, George H. (See Gravit, William, assignor.)						
Kimball, Granville, and H. S. Teal, Chicago, Ill. Fluid-pressure governor	449,222	Mar. 31	3148	794	54	1752
Kimball, James L. (See Wirt, Herbert C., assignor.)						
Kimball, James L., Boston, Mass. Electric plug circuit-closer	466,052	Dec. 29	3298	842	57	1803
Kimball, James M., Woodstock, Ill. Dumping-wagon	451,825	May 5	579	143	55	689
Kimball, James M., and M. E. West, Bradford, Mass.; said Kimball assignor to said West. Fire-escape	458,023	Aug. 18	1799	469	56	888
Kimball, Joseph E. (See Locke, Cary, and Kimball.)						
Kimball, Perley L., assignor to Vermont Farm Machine Company, Bellows Falls, Vt. Box-fastener	457,741	Aug. 11	1331	346	56	793
Kimball, William H., Burlington, N. J., assignor of one-half to G. A. Smith, Philadelphia, Pa. Leather-skiving machine	458,535	Aug. 25	2625	639	56	1052
Kimber, Abraham, Indianapolis, Ind. Mail-pouch deliverer	460,057	Sept. 22	2383	595	56	1546
Kimber, Abraham, Indianapolis, Ind. Mail-pouch deliverer	460,932	Oct. 6	612	156	57	119
Kimber, Charles. (See Lytle, Evans, and Kimber.)						
Kimble, Smith W., assignor to Railroad Mica Lubricant Company, Denver, Colo. Dust-collector	458,147	Aug. 18	1986	514	56	925
Kimble, Smith W., assignor to Mica Asbetite Insulating Company, Denver, Colo. Insulating composition	464,367	Dec. 1	566	.....	57	1242
Kimble, Smith W., assignor to Mica Asbetite Insulating Company, Denver, Colo. Insulating-support for electrical apparatus	464,368	Dec. 1	568	139	57	1242
Kimble, Smith W., assignor to Mica Asbetite Insulating Company, Denver, Colo. Composition of matter for insulating purposes, &c.	464,369	Dec. 1	569	.....	57	1242
Kimble, Smith W., assignor to Mica Asbetite Insulating Company, Denver, Colo. Trolley-wheel for electric railways	464,370	Dec. 1	570	139	57	1242
Kimble, Smith W., assignor to Mica Asbetite Insulating Company, Denver, Colo. Trolley-wire hanger	464,371	Dec. 1	571	$\left\{ \begin{smallmatrix} 139 \\ 140 \end{smallmatrix} \right\}$	57	1242
Kimble, Jeremiah H. and J. A., Georgetown, Tex. Andiron	464,437	Dec. 1	660	162	57	1261
Kimbro, John A. (See Kimbro, Jeremiah H. and J. A.)						
Kimman, Frederic G. (See Rosentreter, Albert J., assignor.)						
Kimmel, Joseph, assignor of one-half to J. W. Scott, J. W. Suffel, and J. W. Manweiler, Utica, N. Y. Clothes-pin	457,121	Aug. 4	286	75	56	588
Kimplen, Cornelius, Chicago, Ill. Hydraulic brick-machine	451,126	Apr. 28	2286	$\left\{ \begin{smallmatrix} 566 \\ 567 \\ 568 \\ 569 \end{smallmatrix} \right\}$	55	469
Kimpton, Charles A., <i>et al.</i> (See Bennett, Josiah C., assignor.)						
Kimpton, Charles A., Malden, assignor of three-fourths to J. C. Bennett and F. R. White, Lynn, Mass. Apparatus for ventilating buildings	444,444	Jan. 13	722	189	54	151
Kincaid, Barron P., and C. D. Crickler, assignors to said Crickler and R. Trenchard, Bridge-ton, N. J. Bottle-stopper	458,282	Aug. 25	2224	545	56	976
Kincaid, George F., San Francisco, Cal. Photographic-camera shutter	444,361	Jan. 6	589	152	54	117
Kincaid, George F., San Francisco, Cal. Pneumatic bell	445,837	Feb. 3	540	131	54	617
Kinder, Arthur H., assignor to L. C. Chase & Co., Boston, Mass. Horse-blanket	448,151	Mar. 10	1420	363	54	1398
Kindermann, Oskar, Lindenau, Germany, assignor to H. Willford, Kingston, England. Manufacture of lithographic plates	445,650	Feb. 3	211	.....	54	554
Kindler, Louis A., Cleveland, Ohio. Stringing pianos	454,911	June 30	2669	683	55	1684
Kindred, Joe N., New Concord, Ky. Thill-support	459,964	Sept. 22	2243	563	56	1520
Kinehan, Charles R., assignor to J. C. Dueber, Canton, Ohio. Watch-regulator	465,935	Dec. 29	3079	790	57	1761
King, Albert F. A., Washington, D. C. Pencil-sharpener	447,431	Mar. 3	260	65	54	1166
King, Benjamin F., Forest Home, Tenn. Wagon-bed	464,570	Dec. 8	864	212	57	1309
King, Charles C. (See Hunt and King.)						
King, Charles E. (See Peirce, Almy L., assignor.)						
King, Charles H., <i>et al.</i> (See Walmsley, Harry B., assignor.)						
King, Charles R. (See Bessonette and King.)						
King, Charles R., <i>et al.</i> (See Carpenter, James H., assignor.)						
King, Christopher C., Syracuse, N. Y. Metal basket	458,233	Aug. 25	2129	551	56	959
King, Daniel S. (See Brown and King.)						
King, Edward A., and A. J. Carr, Chicago, Ill.; said King assignor to said Carr. Awning-brace	445,718	Feb. 3	333	87	54	578
King, Edward G., San Francisco, Cal. Compass attachment for field-glasses	444,795	Jan. 13	1272	329	54	256
King, Edward H., Claremont, N. H. Cop or bobbin	458,369	Aug. 25	2368	577	56	1003
King, Francis M., Philadelphia, Pa. Hand-stamp	451,275	Apr. 28	2557	630	55	520
King, Frank B. (See Clark and King.)						
King, Fred E. (See Jewell, William E., assignor.)						
King, George D., Oswego, N. Y. Machine for forming hollow ware from pulp	459,164	Sept. 8	973	236	56	1262
King, George D., Oswego, N. Y. Pulp-molding machine	459,174	Sept. 8	994	243	56	1265
King, George E., <i>et al.</i> (See Palmer, Samuel D., assignor.)						
King, George E., Dallas, Tex. Weight for horses' hoods	460,017	Sept. 22	2320	581	56	1535
King, George W., Marion, Ohio. Steam-shovel	460,973	Oct. 13	674	174	57	138
King, James D., Brooklyn, N. Y., assignor to Latimer Cash Register Company, Detroit, Mich. Cash-register	448,242	Mar. 17	1582	404	54	1437
King, James E. (See Clark, Philo B., assignor.)						
King, James L. O., Fair Play, S. C. Plow-stock	455,462	July 7	257	65	56	52
King, James M., Hebron, Neb. Seed-drill	448,349	Mar. 17	1784	451	54	1476
King, John, Minneapolis, Minn. Combined curb and gutter	459,754	Sept. 22	1922	484	56	1459
King, John, Minneapolis, Minn. Valve-operating mechanism for tanks	461,439	Oct. 20	1406	355	57	286
King, John, Minneapolis, Minn. Valve	461,440	Oct. 20	1408	355	57	287
King, John, assignor of one-half to H. R. Wade, Toledo, Ohio. Sheet-deliverer for printing-presses	463,839	Nov. 24	2571	670	57	1073
King, John C. (See Openlander, Edward J., assignor.)						
King, John F., and N. Bryant, Otsego, Mich. Spring friction-clutch	459,042	Sept. 8	781	189	56	1225
King, John H., Cincinnati, Ohio, assignor of one-half to R. W. Dugan, Covington, Ky. Sand-strainer for deep wells	447,882	Mar. 10	999	252	54	1314
King, John H., assignor of one-half to E. I. Robinson, Cincinnati, Ohio. Brake for street-cars	448,438	Mar. 17	1922	483	54	1502
King, John H., assignor of one-half to J. O. Sloan, Cincinnati, Ohio. Cut-off valve	449,123	Mar. 31	2997	757	54	1725

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King, John H., assignor of one-half to F. B. Durant, West Troy, N. Y. Trap for waste-water pipes.....	465,820	Dec. 22	2885	738	57	1715
King, John M., Winstonsborough, La. Insect-trap.....	453,842	June 9	1027	268	55	1351
King, Joseph M., Wilmington, N. C. Veneer box or basket.....	460,285	Sept. 29	2741	683	56	1623
King, Leroy J., administrator. (See Weyer, Jules A.)						
King Mop and Wringer Company. (See Pelton, Leander, assignor.)						
King, Orson, T. Leach, and J. Larson, Randolph, Kans. Corn-harvester.....	452,104	May 12	1065	269 270 240 241	55	783
King, Phineas F., assignor to Mosler Bank Safe Company, Cincinnati, Ohio. Time-lock.....	450,293	Apr. 14	967	240	55	192
King, Phineas F., assignor to Mosler Bank Safe Company, Cincinnati, Ohio. Safe-front.....	451,695	May 5	386	94	55	652
King, Phineas F., assignor to Mosler Bank Safe Company, Cincinnati, Ohio. Burglar-proof safe.....	457,122	Aug. 4	287	75	56	588
King, Robert F., Bozeman, Mont. Dumping-wagon.....	457,853	Aug. 18	1516	395	56	835
King, Robert W., Georgetown, Canada. Steam-heating apparatus.....	447,330	Mar. 3	77	21	54	1132
King, Rockwell. (See Serkey, Joseph von, assignor.)						
King, Sidney D., Pittston, Pa. Dumping-car.....	460,974	Oct. 13	676	174 175 175 176 176 126 127	57	139
King, Sidney D., Pittston, Pa. Dumping-car.....	460,975	Oct. 13	678	176 176 126 127	57	139
King, Singleton L., Grand Rapids, Mich. Carving-machine.....	453,487	June 2	490	126 127	55	1240
King, Theodore J., Washington, D. C. Track clearing and lubricating device.....	449,855	Apr. 7	321	83	55	64
King, Theodore J., Washington, D. C. Track clearer and lubricator.....	449,856	Apr. 7	324	83	55	65
King, Theophilus. (See Brewer, Charles W., assignor.)						
King, William C., Pittsburg, Pa. Bottle-lock.....	445,755	Feb. 3	395	100	54	591
King, William H. (See Broadbent, William J., assignor.)						
King, William H., Bolivar, N. Y. Stamp-affixing machine.....	449,544	Mar. 31	3698	929 930 450	54	1853
King, William H., New Haven, Conn. Sash-fastener.....	452,545	May 19	1787	450	55	927
King, William R., assignor to J. H. Crosman, New York, N. Y. Automatic brake mechanism.....	446,386	Feb. 10	1446	355 356	54	800
King, William W., Lewiston, Me. Flood-fence.....	464,605	Dec. 8	914	225	57	1319
Kingery, William F., and J. B. Cavanaugh, Greenfield, Iowa. Derrick for slaughtering animals.....	448,054	Mar. 10	1285	328	54	1369
Kingsbury, F. H. (See Vaughn, Augustus W., assignor.)						
Kingsbury, Harry T., Keene, N. H. Tennis-court marker.....	444,384	Jan. 6	626	162	54	123
Kingsbury, John J. D., East Bloomfield, N. Y. Car-coupling.....	464,712	Dec. 8	1097	272	57	1353
Kingsford, Rupert E., Toronto, Canada. Office-indicator.....	452,899	May 26	2349	594	55	1044
Kingsford, Thomson. (See Toukin, John J., assignor.)						
Kingsland & Douglas Manufacturing Company. (See Reeder, William S., assignor.)						
Kingsley, Edward E., Portland, Oreg. Device for moistening the gum on envelopes.....	449,480	Mar. 31	3610	909	54	1837
Kingsley, Horace L., Racine, Wis. Vehicle-pole.....	461,190	Oct. 13	988	253	57	196
Kingwill, John F., assignor to McCormick Harvesting Machine Company, Chicago, Ill. Machine for manufacturing harvester conveyor-belts.....	452,972	May 26	2471	625 626	55	1068
Kingwill, John F., assignor to McCormick Harvesting Machine Company, Chicago, Ill. Machine for applying slats to webs of canvas.....	453,176	May 26	2840	712 713	55	1137
Kingzett, Charles T., London, England, assignor to American and Continental Sanitas Company, Limited, New York, N. Y. Vaporizer.....	462,714	Nov. 10	782	204	57	710
Kinkaid, Thomas W., U. S. Navy. Rotary engine.....	444,920	Jan. 20	1557	399	54	319
Kinkead, Robert S., Lexington, Ky. Controlling-gear for draft-horses.....	446,067	Feb. 10	912	223	54	697
Kinn, Babis B., Dunkirk, N. Y. Beer-cooler.....	445,115	Jan. 20	1827	473	54	372
Kinnard, John M. (See Willson, Henry F., assignor.)						
Kinnard, Will M. (See Weiman, Euchenhofer, and Kinnard.)						
Kinnear, William R., Columbus, Ohio. Metallic door.....	445,262	Jan. 27	2068	533	54	427
Kinnear, William R., Columbus, Ohio. Metallic ceiling.....	446,121	Feb. 10	996	245 246	54	713
Kinnear, William R., Columbus, Ohio. Metallic siding.....	461,342	Oct. 13	1233	314	57	247
Kinnear, William R., Columbus, Ohio. Metallic ceiling.....	464,694	Dec. 8	1064	264	57	1347
Kinney, Elisha P., assignor of one-half to G. McCurdy, Unity, Kans. Car-coupling.....	449,798	Apr. 7	243	61	55	48
Kinney, Jacob C., Hubbard, Ark. Spool-cabinet.....	445,263	Jan. 27	2069	534	54	427
Kinney, James E., J. H. Brown, and C. G. Wade, Chicago, Ill.; said Wade assignor to said Kinney and Brown. Trolley.....	456,148	July 21	1335	354	56	272
Kinney, John, Phillipsburg, Mont. Car-brake.....	444,980	Jan. 20	1638	420	54	336
Kinney, Timothy P., Windsor, Conn. Lath-holder.....	462,977	Nov. 10	1208	315	57	793
Kinney, William B. (See Van Nest and Kinney.)						
Kinser, Harvey A., Decatur, Ill. Step-ladder.....	453,193	June 2	22	7	55	1153
Kinsey, Edwin H., Buffalo, N. Y. Wrench.....	445,020	Jan. 20	1677	431	54	344
Kinsman, Frank E., Plainfield, N. J. Ice-harvesting machine.....	445,896	Feb. 3	625	153 154	54	634
Kinsman, Frank E., Plainfield, N. J. Railway-circuit for signaling and controlling trains.....	448,751	Mar. 24	2432	608 609	54	1606
Kinsman, Joseph J. (See Trombly and Kinsman.)						
Kintner, Charles J. (See Paget, Leonard, assignor.)						
Kintner, Charles J., New York, N. Y. Electric motor.....	452,795	May 26	2184	547 548	55	1013
Kintner, Charles J., New York, N. Y. Electric motor.....	457,902	Aug. 18	1600	416	56	849
Kintner, Charles J., assignor to Electric Secret Service Company, New York, N. Y. Electrical signaling device.....	452,026	May 12	903	231	55	757
Kintner, Charles J., New York, N. Y., assignor to G. Johnson, Catsanqua, Pa. Bell.....	455,626	July 7	531	139	56	102
Kintz, Joseph, Ballardville, Mass., assignor of one-half to Craighead & Kintz Company, New York, N. Y. Electric-light fixture.....	447,832	Mar. 10	916	229	54	1208
Kintzel, Eliza E., administratrix. (See Kintzel, James E.)						
Kintzel, James E., deceased; E. E. Kintzel, administratrix, and assignor of one-half to W. L. Van Harlingen, Jr., La Junta, Colo., and W. L. Van Harlingen, Sr., Oakland, Cal. Purifier for steam-boilers.....	458,836	Sept. 1	449	108	56	1151
Kinzer, John J., Jr., Pittsburg, Pa. Apparatus for forming sand molds.....	457,321	Aug. 4	635	167	56	650
Kiper, Charles, Atchison, Kans. Horse-collar fastener.....	464,225	Dec. 1	345	83	57	1199
Kipp, Bernhard A. (See Knebe, Rudolph, assignor.)						
Kipper, Emil. (See Perry, Enoch W., Jr., assignor.)						
Kipper, Emil, Adams, Mass., and E. W. Perry, Jr., New York, N. Y. Magazine plate-holder for photographic apparatus.....	458,907	Sept. 1	563	137	56	1173
Kirby, Jeremiah W., assignor of one-fourth to H. Peterson, Great Falls, Mont. Car-coupling.....	460,917	Oct. 6	594	150	57	116

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Kirby, John F., San Francisco, Cal. Governor	454,218	June 16	1555	409	55	1461
Kirby, John H. (See Collier and Miller, assignors.)						
Kirby, John L. (See Whitney and Kirby.)						
Kirby, Remembrance L., Pomeroy, Wash. Whiffletree clip and hook	461,615	Oct. 20	1747	430	57	348
Kirby, Remembrance L., Pomeroy, Wash. Running-gear for vehicles	461,940	Oct. 27	2285	566	57	460
Kirby, Remembrance L., Pomeroy, Wash. Hook	465,530	Dec. 22	2446	623	57	1629
Kirby, William A., and A. McKain, Auburn, N. Y.; said McKain assignor to said Kirby.						
Tension device	450,837	Apr. 21	1851	451	55	374
Kirchhoff, James W. (See Kirchhoff, William P. and J. W.)						
Kirchhoff, William P. and J. W., New Orleans, La. Manufacture of candy	457,439	Aug. 11	851		56	699
Kirk, Arthur, Sharpsburg, Pa. Jetty	455,216	June 30	3224	819	55	1791
Kirk, Charles J., New Castle, Pa. Harrow	454,825	June 23	2514	647	55	1647
Kirk & Co., James S. (See Domcoier and Hagemann, assignors.)						
Kirk & Co., James S. (See Hagemann, Otto C., assignor.)						
Kirk & Co., James S. (See Hagemann and Mitting, assignors.)						
Kirk, Henry, Minneapolis, Minn. Hinge	460,141	Sept. 29	2523	628	56	1580
Kirk, John, and B. Lee, Leeds, England. Machinery for finishing worsted and woolen fabrics, &c.	448,439	Mar. 17	1924	483 484	54	1503
Kirk, John E., H. A. Alden, and B. M. Steele, assignors to Acme Harvester Company, Peoria, Ill. Portable-stack-roof chain	455,467	July 7	296	75	56	60
Kirk, William F. (See McLanahan and Kirk.)						
Kirke, George E. (See Strong, Samuel, assignor.)						
Kirkhoff, George F., et al. (See Phillips, William H., assignor.)						
Kirkhoff, John H., et al. (See Phillips, William H., assignor.)						
Kirkland, Samuel W. (See McDonald, Alfred M., assignor.)						
Kirkmeyer, Henry, Fort Howard, Wis. Coin-distributor	454,653	June 23	2245	577	55	1596
Kirkpatrick, David M., Denver, Colo. Copy-holding attachment for type-writers and printers' cases	462,820	Nov. 10	953	248	57	745
Kirkpatrick, George W. (See Clinton and Kirkpatrick.)						
Kirkpatrick, George W. (See Heath, Lawrence, assignor.)						
Kirkpatrick, George W., and E. J. Corser, Macedon, N. Y. Grain-drill	446,636	Feb. 17	1841	456	54	890
Kirkpatrick, Helen M. (See Clinton and Kirkpatrick, assignors.)						
Kirkpatrick, James M., Smithville, Miss. Combined fertilizer-distributor and wheelbarrow	456,418	July 21	1775	470	56	355
Kirkpatrick, John A., Anthony, Kans. Air heating and ventilating apparatus for stoves or furnaces	452,105	May 12	1067	270	55	783
Kirkpatrick, John A. and G. W. McDaniel, Anthony, Kans. Road-cart	455,831	July 14	877	230	56	177
Kirkpatrick, John W., Newburyport, Mass. Vessel for holding liquids	455,511	July 7	335	86	56	67
Kirkpatrick, Robert S., assignor of one-fourth to R. P. Dammand, Harlan, Iowa. Portable elevator and wagon-unloader	449,447	Mar. 31	3555	895 896	54	1896
Kirkpatrick, Robert S., assignor of one-fourth to R. P. Dammand, Harlan, Iowa. Unloading apparatus	449,448	Mar. 31	3559	897	54	1827
Kirkpatrick, Thomas J., Springfield, Ohio. Seat for bicycles	465,669	Dec. 22	2667	680	57	1671
Kirks, Albert, assignor to Diebold Safe and Lock Company, Canton, Ohio. Safe-lock	454,971	June 30	2789	711 712	55	1707
Kirkwood, Hugh. (See Denney, Samuel L., assignor.)						
Kirman, William H., Brooklyn, assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Non-interference fire-alarm signal-box	447,074	Feb. 24	2570	638	54	1037
Kirman, William H., Brooklyn, assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Non-interference signal-box	450,239	Apr. 14	895	223	55	178
Kirstein, Henry E., Rochester, N. Y. Eyeglasses	444,362	Jan. 6	591	152	54	117
Kirstein, Henry E., Rochester, N. Y., and E. De Celles, Southbridge, Mass.; said De Celles assignor to said Kirstein. Eyeglasses	463,821	Dec. 22	2885	738	57	1715
Kiser, Alvie V., West Liberty, Ohio. Corn-harvester	459,006	Sept. 8	711	174 175 176	56	1212
Kirtley, Simeon B., and H. Phillips, Columbia, Mo. Combined ledger and index	448,052	Mar. 10	1282	327	54	1369
Kisinger, Frank P. (See Dunham and Kisinger.)						
Kisinger, George W. (See Dunham and Kisinger.)						
Kisinger, John T. T., Belton, Mo. Animal-trap	449,857	Apr. 7	326	83	55	65
Kisinger, John T. T., Belton, Mo. Animal-trap	462,715	Nov. 10	783	204	57	710
Kisinger, William S., Bellevue, Ky., assignor to H. G. Stiebel, Cincinnati, Ohio. Water-sprinkler	447,778	Mar. 10	819	203	54	1280
Kisinger, William S., Bellevue, Ky., assignor to Stiebel, Kisinger & Stiebel, Cincinnati, Ohio. Express-car	453,645	June 9	736	190	55	1295
Kisinger, William S., Bellevue, Ky., assignor to Stiebel, Kisinger & Stiebel, Cincinnati, Ohio. Car-axle	464,028	Dec. 1	36	10	57	1143
Kissell, Martin L., assignor to P. P. Mast & Company, Springfield, Ohio. Cultivator	453,010	May 26	2531	641	55	1080
Kitchell, Lyman B. (See Spencer and Kitchell.)						
Kitchell Embossing Company. (See Kitchell, Hudson M., assignor.)						
Kitchell, Hudson M., Brooklyn, N. Y., assignor to Kitchell Embossing Company, Bayonne City, N. J. Embossing paper, card-board, and like impressible materials	453,596	June 2	651		55	1271
Kitchen, William W., Lockford, Ill. Perpetual calendar	464,372	Dec. 1	572	140	57	1243
Kitselman, Alva L. (See Duffey and Kitselman.)						
Kitselman, Alva L., Ridgeville, Ind. Fence	444,753	Jan. 13	1212	315	54	245
Kitsop, Arthur, Philadelphia, Pa. Variable crank-motion	460,642	Oct. 6	175	44, 45	57	37
Kitson, Arthur, Philadelphia, Pa., assignor to United States Heat, Light, and Power Company, of New Jersey. Gas-generator	462,561	Nov. 3	542	132	57	654
Kitson, John, Jersey City, N. J., assignor of one-half to I. Brown, Brooklyn, N. Y. Rudder-locking apparatus	463,517	Nov. 17	2047	536	57	965
Kitson Machine Company. (See Church, Henry W., assignor.)						
Kittredge, Anson O., Slate Hill, and J. J. Hogan, assignors to Hogan Engineering Company, New York, N. Y. Radiator-coupling	450,160	Apr. 14	757	192	55	154
Klaber, Augustus D. (See Heiss, Frank A., assignor.)						
Klahn, Emil, Jersey City, N. J., assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener	449,255	Mar. 31	3304	808	54	1763
Klahn, Emil, Jersey City, N. J., assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener	453,843	June 9	1028	268	55	1351
Klahr, Davilla L., Shelbyville, Ill. Tricycle	447,331	Mar. 3	79	21, 22	54	1133
Klaiss, John F. (See Price and Klaiss.)						
Klapperich, John W., Chicago, Ill. Cue-tip shaper and chalk-holder	451,938	May 12	766	193 194	55	731
Klar, John, Westfield, Mass. Head for polishing stone	451,327	Apr. 28	2631	650	55	534

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Klander, Charles L., Philadelphia, Pa., assignor to Klander-Weldon Dyeing Machine Company, of Pennsylvania. Apparatus for dyeing	453,646	June 9	738	{ 190 191 }	55	1295
Klander-Weldon Dyeing Machine Company. (See Klander, Charles L., assignor.)						
Klans, Jacob J., Newark, N. J. Embroidering-machine	462,051	Oct. 27	2440	605	57	490
Klanser, Edith A., <i>et al.</i> (See Klanser, William C., assignor.)						
Klanser, William C., assignor to W. C. Knox, S. C. Garrard, and E. A. Klauser, Topeka, Kans. Adjustable time table or indicator	457,204	Aug. 4	427	111	56	613
Klautsch, Moritz, Halle-on-the-Saale, Germany. Accouchement apparatus for instruction	451,675	May 5	355	87	55	646
Klaw, Marc, <i>et al.</i> (See Jefferson, Charles B., assignor.)						
Klees, James A., assignor to Keystone Wagon Company, Reading, Pa. Dumping-wagon	449,265	Mar. 31	3215	811	54	1765
Klees, James A., assignor to Keystone Wagon Company, Reading, Pa. Dumping-wagon	454,004	June 9	1246	324	55	1394
Kleifgen, Casper, Shelbyville, assignor to G. E. Krause and A. Kramer, Indianapolis, Ind. Hinge	453,700	June 9	827	210	55	1312
Kleihauer, James, Jr., Elk Creek, Nebr. Corn-planter	450,026	Apr. 7	562	140	55	109
Klein, Charles J. (See Bergmann and Klein.)						
Klein, Johann, Frankenthal, Germany. Liquid-cooler	444,558	Jan. 13	912	{ 237 238 }	54	189
Klein, Joseph, Cass City, Mich. Machine for forming eaves-troughs	460,564	Oct. 6	64	18	57	14
Klein, Rudolph, <i>et al.</i> (See Sehrke, Richard, assignor.)						
Kleineick, Hugo, Newark, N. J. Bow-holder for violin-cases	463,316	Nov. 17	1745	456	57	906
Kleinert, Isaac B. (See Townsend, William, assignor.)						
Kleinert, Isaac B., New York, N. Y. Dress-shield	460,825	Oct. 6	452	114	57	90
Kleiser, Adolphe, assignor to himself and U. T. Kenan, Portland, Ala. Cotton-seed and corn planter	452,674	May 19	1985	498	55	966
Klenk, John, <i>et al.</i> (See Hottman, Charles W., assignor.)						
Kleppinger, John, and W. H. Mead, Rockville, Mo. Neck-yoke	446,742	Feb. 17	2009	501	54	922
Kline, Charles L., New York, N. Y. Metallic self-venting bung	464,974	Dec. 15	1495	375	57	1441
Kline, John A., assignor of one-third to J. Kaufmann, Reading, Pa. Attaching panels or the like to metallic surfaces	465,782	Dec. 22	2828	725	57	1703
Kline, John W., Wilkes-Barré, Pa. Water-wheel	462,821	Nov. 10	955	248	57	745
Kling, Charles L., assignor of one-sixth to H. D. Sykes, Milwaukee, Wis. Lithmetalography	454,438	June 16	1893		55	1525
Kling, Peter M. (See Verstraete, Edmond, assignor.)						
Kling, Peter M., St. Louis, Mo. Car-truck	450,941	Apr. 21	1998	492	55	404
Kling, Peter M., St. Louis, Mo. Brake-handle	464,100	Dec. 1	141	35	57	1164
Klinker, Wesley, Union Mills, Iowa. Hay-stacker	451,766	May 5	498	123	55	673
Klippert, Charles V., L. J. Vogt, and H. L. Weiland, Rochester, N. Y. Device for weighing liquids	456,959	Aug. 4	59	14	56	544
Klockmann, Henry G., La Grange, Tex. Baling-press	450,942	Apr. 21	1999	492	55	404
Klots, Henry D. (See Pendleton, Girdon, Jr., assignor.)						
Klotz, Joseph. (See Le Grand and Klotz.)						
Klotzbach, Christophe, Passaic, N. J. Machine for covering conductors	463,809	Nov. 24	2526	659	57	1063
Klotzbach, Christophe, Passaic, N. J. Machine for covering conductors	463,810	Nov. 24	2528	659	57	1064
Klump, Jacob F., Jr., Louisville, Ky. Electric signal apparatus for fire-hose	452,506	May 19	1726	434	55	915
Knapik, John. (See Adam and Knapik.)						
Knapp, Charles, St. Louis, Mo. Sash-fastener	463,518	Nov. 17	2048	537	57	965
Knapp, Gilbert M., <i>et al.</i> (See Crabtree, Leonard T., assignor.)						
Knapp, Isaac N. (See Collins and Knapp.)						
Knapp, Jonah W., Cross River, N. Y. Driving mechanism for hand-drills	447,614	Mar. 3	557	138	54	1222
Knapp, Lyman. (See Geiger and Knapp.)						
Knapp, Myron A. (See Ritchie, Foster, assignor.)						
Knapp, Otto, and C. E. Salisch, Kansas City, Mo. Wrench	460,474	Sept. 29	3020	756	56	1675
Knapp, Thomas M. (See Papin, Peter M., assignor.)						
Kneas, William H. (See Smith, George A., assignor.)						
Knapp, William H., Galesburg, Mich. Grain carrier and packer	453,647	June 9	742	191	55	1296
Knapp, Woodbury S., North Leeds, Me. Tree-protector	464,879	Dec. 8	1339	336	57	1400
Knaub, William R. (See Brown and Knaub.)						
Knauer, Charles F., Plymouth, Wis. Saw-set	461,836	Oct. 27	2112	520	57	426
Knauff, Paul W., <i>et al.</i> (See Phillips, William H., assignor.)						
Knause, John W., Newark, N. J. Pole	460,826	Oct. 6	455	115	57	91
Knecht, John, Freeport, Ill. Sash-cord guide	444,363	Jan. 6	593	152	54	118
Kneeland, George N. (See Thorp, Thomas J., assignor.)						
Kneeland, Remus A., Benton Harbor, Mich. Butter-package	443,998	Jan. 6	20	5	54	7
Knefelkamp, Charles. (See Stoepelwerth and Knefelkamp.)						
Knefelkamp, Charles H. (See Stoepelwerth and Knefelkamp.)						
Kneip, Anton, Maspeth, N. Y. Tenon for blind-slats	446,781	Feb. 17	2060	513	54	933
Knell, Charles, Dayton, Ohio. Condenser-head for exhaust-pipes	455,405	July 7	170	44	56	36
Knell, James W., (by judicial change of name now N. Burgess,) Highlands, N. J. Apparatus for producing illusory dramatic effects	455,288	June 30	3355	847	55	1816
Knemeyer, Edward W. (See Bruner and Knemeyer.)						
Knickerbocker Company. (See Morse, Orville M., assignor.)						
Knickerbocker, James B., Indianapolis, Ind. Gas-meter	447,883	Mar. 10	1000	{ 252 253 }	54	1314
Knickerbocker, Ruben W., <i>et al.</i> (See Brown, John W., assignor.)						
Kniffen, Le Grand, Chicago, Ill. Road-grader	458,234	Aug. 25	2129	552	56	959
Knight Brothers, trustees. (See Villiers-Stead and Hedgman, assignors.)						
Knight, Charles H., Rondont, N. Y. Adjustable chair	445,183	Jan. 27	1944	502	54	404
Knight, Charles Y., assignor to F. Crowell, Minneapolis, Minn. Wrapper-paster	449,124	Mar. 31	2999	757	54	1725
Knight, Climpson M., and T. Hawken, Salem, Mass. Coupling for electric wires	447,833	Mar. 10	917	230	54	1298
Knight, Edward M., San Francisco, Cal. Filter	444,754	Jan. 13	1214	{ 315 316 }	54	246
Knight, Edward M., San Francisco, Cal. Filter	445,223	Jan. 27	2006	{ 516 517 }	54	416
Knight, Edward M., San Francisco, Cal. Filter	445,224	Jan. 27	2009	517	54	416
Knight, Edward S., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter	445,116	Jan. 20	1828	473	54	372
Knight, Frank D., and G. E. Whittaker, Hudson, Mass. Wire-cutter	457,878	Aug. 18	1560	405	56	843
Knight, Frank H. (See Hunter and Knight.)						
Knight, George E. A., Providence, R. I. Jeweler's stock	450,412	Apr. 14	1169	285	55	230
Knight, George E. A., Providence, R. I. Plated wire	460,750	Oct. 6	349	85	57	69
Knight, George F. (See Norris, Calvin H., assignor.)						
Knight, John L., New York, N. Y. Printing-office apparatus	449,223	Mar. 31	3149	794	54	1752

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Knight, Josiah. (See Martin, George W., assignor.)						
Knight, Margaret E., South Framingham, and H. B. Steele, Medford, Mass. Sole-cutting machine	444,982	Jan. 20	1623	415 416 417 418	54	333
Knight, Robert E. L., et al. (See Nesmith, Robert H., assignor.)						
Knight, Thomas I., New York, and L. Quanchi, Yonkers, N. Y. Machine for casting stereotypes	451,276	Apr. 28	2558	630	55	520
Knight, Walter H., New York, N. Y. Electric railway	447,332	Mar. 3	81	22	54	1133
Knight, Walter H., New York, N. Y. Electric railway	455,340	July 7	55	16	56	14
Knight, Walter H., New York, N. Y. Electric railway	455,341	July 7	62	16, 17	56	16
Knight, Walter H., New York, N. Y. Electric railway	455,342	July 7	64	17	56	17
Knight, Walter H., New York, N. Y. Electric-railway plow	455,343	July 7	66	17	56	17
Knight, Walter H., New York, N. Y. Electric-railway system	458,582	Sept. 1	52	11	56	1076
Knight, Walter H., New York, N. Y. Electric railway	458,583	Sept. 1	53	12	56	1076
Knight, Walter H., New York, N. Y. Electric-motor truck	458,584	Sept. 1	55	12, 13	56	1076
Knight, Walter H., New York, N. Y. Electric-railway conduit and contact device	458,747	Sept. 1	299	73	56	1122
Knight, Walter H., New York, N. Y. Conduit and conductor for electric railways	461,549	Oct. 20	1643	401 402 188 189	57	329
Knight, Walter H., New York, N. Y. Conduit-conductor for electric railways	464,505	Dec. 8	768	188 189	57	1291
Knight, Walter H., Boston, Mass. Electric-railway truck	451,491	May 5	72	18	55	593
Knight, Walter H., Cleveland, Ohio. Conductor for electric railways	455,339	July 7	52	15	56	13
Knight, Walter H., Newton, Mass. Trolley for electric cars	455,798	July 14	832	214	56	167
Knight, William H., Newbury, Mass. Combined mileage-book indicator and guard	447,954	Mar. 10	1121	282	54	1338
Knighiton, Charles J., Jr., assignor of one-half to C. J. Knighiton, Sr., Birmingham, Ala. Car-coupling	465,711	Dec. 22	2732	695	57	1682
Knipe, Oscar, assignor to Queen & Co., Philadelphia, Pa. Projecting or optical lantern	455,409	Dec. 15	2241	574 575	57	1580
Knisely, James S., New Philadelphia, Ohio. Ironing-machine	458,772	Sept. 1	336	81, 82	56	1130
Knittel, Andrew W., assignor to himself and O. W. Shoup, Evans City, Pa. Valve for oil-well bailers	453,488	June 2	492	127	55	1241
Knittel, George H. (See Pfeffer and Knittel.)						
Knittle, E. F., et al. (See Welch, Abram T., assignor.)						
Knobel, Abraham, Wilson, La. Sickle-grinding machine	465,712	Dec. 22	2733	695	57	1682
Knoepfel, Ernest G., and H. Miller, Argentine, Kans. Bullion-sampler	464,252	Dec. 1	389	93	57	1208
Knoerschild, Charles, assignor to Gem Hammock and Fly Net Company, Milwaukee, Wis. Hammock	459,043	Sept. 8	782	190	56	1225
Knöffer, Oskar, Charlottenburg, Germany, assignor of one-half to Ozone Manufacturing Company, New York, N. Y. Telethermometer	452,877	May 26	2305	582	55	1036
Knoll, Johann, Reischdorf, Austria-Hungary. Pin for securing garments	465,863	Dec. 29	2959	756	57	1738
Knollin, Edward M., Lacona, N. Y. Walking traction-engine	461,441	Oct. 20	1409	355 356	57	287
Knoop, Ernst, St. Petersburg, Russia. Ticket-reel	457,854	Aug. 18	1518	395	56	836
Knopp, Jacob, Columbiana, Ohio. Basket-wiring machine	460,827	Oct. 6	455	115	57	91
Knorpp, Philipp, Stapleton, N. Y. Machine for making confectionery	454,278	June 16	1641	431	55	1477
Knorring, Constantin de, Berlin, Germany. Self-acting fastening for top-mast fids	463,157	Nov. 17	1493	387	57	857
Knowles, Charles S. (See Ellis, David T., assignor.)						
Knott, Leo, et al. (See Schwalen, John N., assignor.)						
Knott, Otto, et al. (See Schwalen, John N., assignor.)						
Knowels, John S., Buffalo, Mo. Animal-trap	451,057	Apr. 28	2192	542	55	449
Knowles, Daniel C., Tilton, N. H. Horse-checking device	459,293	Sept. 8	1170	284	56	1301
Kuowles, Edward R., Brooklyn, N. Y. Electric-arc lamp	459,510	Sept. 15	1521	380 381	56	1377
Knowles, George, Jr. (See Fortier, Charles L., assignor.)						
Knowles, George, Jr. (See Young, George W., assignor.)						
Knowles, George, Jr., et al. (See Jacobs, Henry E., assignor.)						
Knowles, George, Jr., and G. W. Young, Milwaukee, Wis. Automatic fire-extinguishing system	450,413	Apr. 14	1170	286	55	230
Knowles, Henry, Woodville, England. Socket-pipe for drainage, &c	462,052	Oct. 27	2442	605	57	490
Knowles, Jacob H., Lawrence, Mass. Weft-fork for looms	445,627	Feb. 3	171	45	54	545
Knowles, James, Jamestown, N. Y. Window-screen	448,965	Mar. 21	2751	694	54	1668
Knowles, John C., Providence, R. I. Fastening for garters	462,358	Nov. 3	227	56	57	594
Knowles Loom Works. (See Hutchins, George F., assignor.)						
Knowles Loom Works. (See Taplin, Aldin B. and H., assignors.)						
Knowles Loom Works. (See Wattie, William, assignor.)						
Knowles, Thomas, Bolton and R. Tatham, Rochdale, county of Lancaster, England. Carling-engine	461,029	Dec. 1	36	10	57	1143
Knowles, Wilbur F., Pitcher, N. Y. Check-hook	454,361	June 16	1767	459	55	1501
Knowlton, Mark D., Chicago, Ill. Box-joining machine	447,955	Mar. 10	1122	282 283	54	1338
Knowlton, Mark D., Chicago, Ill. Machine for applying liquid substances	452,844	May 26	2257	566 567	55	1027
Knowlton, Mark D., and C. F. Pease; said Pease assignor to W. C. Ritchie, Chicago, Ill. Glue-applying machine	447,012	Feb. 24	2453	611 612	54	1016
Knox, Andrew W., New York, N. Y. Automatic overflow cut-off	462,844	Nov. 10	996	258	57	753
Knox, Charles L., assignor of one-half to N. Cohn, Nashville, Tenn. Camera attachment	445,561	Feb. 3	65	15	54	524
Knox, George F., Chicago, Ill. Gas-compressor	461,080	Oct. 13	826	212	57	166
Knox, John. (See Knox, Samuel J. and J.)						
Knox, John L. L., Allegheny, Pa. Blasting rock	465,410	Dec. 15	2242	575	57	1580
Knox, Orville M., Oneida, N. Y. Hand-rake	453,011	May 26	2535	641	55	1081
Knox, Orville M., Oneida, N. Y. Railway-tie and rail-securing device	462,716	Nov. 10	784	204	57	710
Knox, Samuel J. and J., Albany, N. Y. Combined cane and umbrella	453,194	June 2	23	7	55	1153
Knox, William C., et al. (See Klausner, William C., assignor.)						
Knox, William J., Richland, Mo. Device for operating churns	446,068	Feb. 10	914	223	54	698
Knoxville Car Wheel Company. (See Guild, George, assignor.)						
Knudsen, Jasper, New York, N. Y. Fish-line reel	465,579	Dec. 22	2527	644	57	1641
Knudson, Ole. (See Nye, Denham, and Knudson.)						
Knudson, Theodor C., and A. Nørholm, Copenhagen, Denmark. Ship's compass	457,161	Aug. 4	349	89, 90	56	600
Knuth, Julius F. (See Closser, Billings, Thomson, and Knuth.)						
Knutsen, Hans. (See Schreiber and Knutsen.)						
Kobusch, George J. (See Weber, Moritz, assignor.)						
Koch, August, New Orleans, La. Apparatus for distilling wood	444,704	Jan. 13	1125	291	54	231

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Koch, Carl. (See Feine, Koch, and Miller.)						
Koch, Christoph F. (See Faulhaber and Koch.)						
Koch, Friedrich, Berlin, Germany. Single-delivery pill-box	448,350	Mar. 17	1786	451	54	1476
Koch, Hans. (See Brooks and Koch.)						
Koch, Jacobus T. C., Amsterdam, Netherlands. Fender for vessels	461,759	Oct. 20	1977	489	57	392
Koch, Julius, and F. Adenauer, New York, N. Y. Fire-escape	451,939	May 12	768	194	55	731
Koch, Leonhard, Chartiers, Pa. Milk-can	449,939	Apr. 7	440	110	55	86
Koch, Louis, Denver, Colo. Exercising apparatus	450,769	Apr. 21	1731	419	55	354
Koch, Matthias, assignor to L. Schultz, New York, N. Y. Quilting-machine	447,570	Mar. 3	491	131	54	1209
Koch, Matthias, Chicago, Ill., assignor to L. Schultz, New York, N. Y. Quilting-machine	447,571	Mar. 3	495	{ 131 132 }	54	1210
Koch, Matthias, assignor, by mesne assignments, to Excelsior Quilting Company, New York, N. Y. Quilting-machine	456,726	July 28	2276	604	56	460
Koch, Matthias, assignor, by mesne assignments, to Excelsior Quilting Company, New York, N. Y. Quilting-machine	456,727	July 28	2281	{ 604 605 }	56	461
Koch, William, New York, N. Y. Mechanical movement	458,302	Aug. 25	2253	550	56	981
Koch, William, New York, N. Y. Mechanical movement	458,303	Aug. 25	2255	550	56	981
Kocher, John J., Los Angeles, Cal. Whiffletree-coupling	444,646	Jan. 13	1039	270	54	213
Kochs, Theodore A. (See Kollert, Anton J., assignor.)						
Kodding, Henry N., Hamilton, Ohio. Hitching-post	465,479	Dec. 22	2350	602	57	1611
Koehlin, Maurice, Belfort, France. Electric meter	458,755	Sept. 1	314	76	56	1125
Koehling, Charles E. (See Fischedick and Koehling.)						
Koegel, Charles, Holyoke, Mass. Latch	454,653	June 16	1310	341	55	1414
Koehler, Herman A., Toledo, Ohio. Line-holder for brick and stone masons	461,021	Oct. 13	743	192	57	151
Koehler, Martin, Toledo, Ohio. Hot-air furnace	454,482	June 23	1957	510	55	1546
Koehler, Oscar. (See Grütznar and Koehler.)						
Koepp, Heinrich, assignor to K. Rosa, Milwaukee, Wis. Sad-iron	445,184	Jan. 27	1946	{ 502 503 }	54	404
Koepp, Heinrich, assignor to K. Rosa, Milwaukee, Wis. Sad-iron	455,848	July 14	895	235	56	180
Koepp, Henry, Milwaukee, Wis. Hobby-horse	453,243	June 2	101	27	55	1167
Koepe, Bernhard, Kearney, Nehr. Water-trough	449,481	Mar. 31	3611	909	54	1837
Koeser, Carl D., assignor to Buckstaff-Edwards Company, Oshkosh, Wis. Baby's chair	451,058	Apr. 28	2194	542	55	449
Koetznor, William C., and E. C. Livingston, Baltimore, Md. Steam generator and flusher	446,223	Feb. 10	1175	288	54	744
Kohl, Charles A., assignor to himself, M. F. W., and E. Kohl, Cleveland, Ohio. Wringer-roller	449,545	Mar. 31	3701	930	51	1854
Kohl, Edward, et al. (See Kohl, Charles A., assignor.)						
Kohl, F. William, et al. (See Kohl, Charles A., assignor.)						
Kohl, John, Mason, Ohio. Canopy-top	446,709	Feb. 17	1957	487	54	912
Kohl, Martin, et al. (See Kohl, Charles A., assignor.)						
Kohler, Edward, London, England. Sewing-machine	449,818	Apr. 7	266	68, 69	55	53
Kohler, F. E., et al. (See Fager, Anthony, assignor.)						
Kohler, Frederick E., Canton, Ohio. Post-hole digger	456,655	July 28	2166	574	56	439
Kohler, Frederick E., Canton, Ohio. Curry-comb	464,773	Dec. 8	1189	295	57	1370
Kohler, Josef, Mannheim, and G. Wittmann, Schwetzingen, Germany. Machine for trimming and cutting up beans	464,880	Dec. 8	1339	{ 336 337 }	57	1400
Kohn, Louis B., Baltimore, Md. Fruit-jar lifter	463,811	Nov. 24	2529	660	57	1064
Kohnle, Frederick, Dayton, Ohio. Marking-tag	457,783	Aug. 18	1397	363	56	813
Kohrer, John E. (See Smith and Kohrer.)						
Koh, George F., Philadelphia, Pa. Cash register and indicator	457,726	Aug. 11	1293	337	56	781
Koh, George F., Philadelphia, Pa. Cash-register	457,727	Aug. 11	1300	338	56	786
Koh, George F., Philadelphia, Pa. Cash register and indicator	457,728	Aug. 11	1306	339	56	787
Kolber, Eduard, assignor to M. Jonasson, New York, N. Y. Spool-rack for sewing-machines	460,475	Sept. 29	3021	757	56	1676
Kollmyer, John A. (See Rand and Kollmyer.)						
Kolstad, Olavus, Pleasant Hill, Mo. Watch-maker's tweezers	460,018	Sept. 22	2321	581	56	1535
Konefes, John H., Quincy, Ill. Brick-machine	461,022	Oct. 13	744	{ 192 193 }	57	152
Koneman, William A., assignor to Chicago Heat Storage Company, Chicago, Ill. Method of and apparatus for producing from coal smokeless flame for heating	461,343	Oct. 13	1235	{ 314 315 }	57	247
Koneman, William A., assignor to Chicago Heat Storage Company, Chicago, Ill. Apparatus for heating with fluid fuel	464,695	Dec. 8	1065	265	57	1347
Koneman, William A., assignor to Chicago Heat Storage Company, Chicago, Ill. Apparatus for manufacturing fuel-gas	464,700	Dec. 8	1075	266	57	1349
Konig, John H. (See Hayes and Konig.)						
Konigslow, Otto. (See Buck and Konigslow.)						
Konigslow, Otto, P. Sanford, and E. B. Harvey; said Konigslow and Harvey assignors to A. Rokusek, Cleveland, Ohio. Ticket-dater	461,344	Oct. 13	1236	315	57	248
Koontz, Victor R., Waynesborough, Pa. Window-frame	451,826	May 5	581	143	55	690
Koopman, Elias B., New York, N. Y. Locking device for coin-holders, &c.	463,250	Nov. 17	1639	427	57	886
Kootz, William, assignor to Gem Hamneck and Fly Net Company, Milwaukee, Wis. Horse fly-net	460,088	Sept. 22	2434	608	56	1556
Kopacek, Louis, and F. Vntech, Chicago, Ill. Boring-machine	454,654	June 23	2247	577	55	1596
Küpeke, Carl A. L., Rotterdam, Netherlands. Life-preserver	455,667	July 7	597	157	56	116
Küpeke, Carl A. L., Rotterdam, Netherlands. Life-preserver	456,621	July 28	2112	558	56	428
Kornil, Joseph, Goldendale, Wash. Car-coupling	456,039	July 11	1180	310	56	223
Körting, Ernst, Hanover, Germany. Water-jet condenser	456,828	July 28	2453	646	56	492
Körting, Ernst, Hanover, Germany. Steam and vacuum pump	457,729	Aug. 11	1311	340	56	789
Koskul, Frederick, New York, N. Y. Ornamental compound metallic fabric	453,489	June 2	493	127	55	1241
Koskul, Frederick, Williamsport, Pa. Compound lumber for veneers, &c.	454,362	June 16	1768	460	55	1501
Koskul, Frederick, Williamsport, Pa. Manufacture of picture-frames	457,478	Aug. 11	923	235	56	711
Koskul, Frederick, Williamsport, Pa. Open veneer ornamental work	461,804	Oct. 13	1115	285	57	222
Koskul, Frederick, Williamsport, Pa. Ornamentation of pile fabrics	462,140	Oct. 27	2584	611	57	517
Koskul, Frederick, Williamsport, Pa. Commode	463,279	Nov. 17	1683	440	57	894
Kost, Frank J., St. Louis, Mo. Car-wheel	459,976	Sept. 22	2262	568	56	1524
Kosztovits, Ognieslaw, St. Petersburg, Russia. Gas-engine	448,924	Mar. 21	2688	{ 677 678 }	54	1656
Kötter, Hermann O., Barmen, Germany. Sprocket-chain and gearing	452,122	May 12	1095	278	55	788
Kotze, Alphonse L., Tallahassee, Fla. Vehicle-pole tip	465,792	Dec. 22	2840	737	57	1706
Koyl, Charles H., Easton, Pa. Drying apparatus	460,051	Sept. 22	2875	{ 593 594 }	56	1545
Koyl, Charles H., Easton, Pa., assignor to National Drying Company, of New Jersey. Drying apparatus	453,562	June 2	598	153	55	1261
Kraatz, August, Bridgeport, Ohio. Making cutting-blades	461,345	Oct. 13	1237	315	57	248
Krabach, Frank X., Dehance, Ohio. Cultivator or harrow tooth	461,837	Oct. 27	2113	520	57	427

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Kraber, John L., High Point, N. C. Spring bed-bottom.....	465,024	Dec. 15	1608	409	57	1462
Kraetsch, Paul J., Des Moines, Iowa. Cremator-closet.....	456,236	July 21	1480	394	56	300
Kraetzer, Edwin J., Cambridge, Mass., assignor to Standard Mailing Case Company, Kittery, Me. Mailing-case.....	460,918	Oct. 6	595	150	57	116
Kraft, Georg W., Dresden, Germany. Washing and rubbing apparatus.....	455,567	July 7	434	115	56	84
Kraft, Joseph H., <i>et al.</i> (See Van Dusen, Charles, assignor.)						
Kramer, Andrew. (See Krane and Kramer.)						
Kramer, Andrew, <i>et al.</i> (See Kleifgen, Casper, assignor.)						
Kramer, Anton, and W. Eriksson, Annapolis, Md. Grater.....	452,015	May 12	884	927	55	754
Kramer, Charles F., Mondovi, assignor of two-thirds to J. Higgins, Eau Claire, Wis. Convertible chair.....	447,432	Mar. 3	261	65	54	1167
Kramer, Louis, <i>et al.</i> (See Ellis, Josiah W., assignor.)						
Kramer, Martin, assignor to E. W. Broadbent, New York, N. Y. Sewing-machine.....	444,212	Jan. 6	376	93, 94	54	75
Krank, Joseph W., Albion, N. Y. Combined scissors, punch, and wire-cutter.....	464,075	Dec. 1	106	27	57	1158
Kraske, Victor, Chicago, Ill. Banjo.....	457,996	Aug. 18	1757	462	56	880
Krassin, August C., and T. Boncher, Waseca, Minn. Well-drilling machine.....	452,878	May 26	2306	582 583	55	1037
Kratz-Boussac, Henri O. (See Oudin and Kratz-Boussac.)						
Kratz, William, Philadelphia, Pa. Ice-creeper.....	462,562	Nov. 3	545	132	57	655
Kratzer, David N., Marion, Iowa. Two-wheeled vehicle.....	450,414	Apr. 14	1173	2-6	55	231
Krans, Edward L., Slatington, Pa. School-slate frame.....	461,442	Oct. 20	1411	356	57	287
Kraus, Jacob W., Sterling, Ohio. Cultivator.....	449,546	Mar. 31	3702	930	54	1854
Kraus, Jacob W., Sterling, Ohio. Cultivator-tooth.....	460,828	Oct. 6	456	115	57	91
Kraus, Jacob W., Sterling, assignor to Akron Tool Company, Akron, Ohio. Cultivator.....	449,642	Mar. 31	3874	969	54	1886
Kraus, Leopold. (See Welton, Frank T., assignor.)						
Kraus, Peter, Vienna, Austria-Hungary. Fire-proof and water-proof tube, roofing, wall, and lining.....	466,246	Dec. 29	3587	917	57	1858
Krause, George E., <i>et al.</i> (See Kleifgen, Casper, assignor.)						
Krause, George E., and A. Kramer, Indianapolis, Ind. Hinge.....	444,445	Jan. 13	723	189	54	151
Krause, Richard E., Gothenberg, Sweden. Skate.....	455,751	July 14	746	196	56	152
Krause, Roswell F., and J. Glennon, Chicago, Ill. Grass-carrying attachment for lawn-mowers.....	448,440	Mar. 17	1926	484	54	1503
Krause, Sarah C., Bethlehem, Pa. Milliner's steamer.....	465,864	Dec. 29	2960	756	57	1738
Kranss, Milton. (See Steltz, Edwin H., assignor.)						
Krautter, August, Brussels, Belgium, assignor of one-half to H. Baumann, Brooklyn, N. Y. Lubricator.....	447,956	Mar. 10	1129	283 284	54	1339
Krazeise, Paul. (See Starr and Krazeise.)						
Krebs, Ernst, San Luis Obispo, Cal. Game apparatus.....	461,346	Oct. 13	1239	315	57	248
Krebs, Ferdinand, Berlin, Germany. Vise-clamp.....	445,506	Jan. 27	2413	630	54	496
Kregel, Louis G., St. Louis, Mo. Coffin-cover.....	454,363	June 16	1770	460 461	55	1501
Krehbiel, John, Kalamazoo, Mich. Car-truck.....	450,627	Apr. 21	1491	366	55	301
Krehbiel, John, Kalamazoo, Mich. Equipment of railway-trains.....	455,021	June 30	2887	734	55	1726
Kreider, Jacob B., Annville, Pa. Artificial leg.....	453,285	June 2	161	46	55	1178
Kreider, Jacob B., Annville, Pa. Artificial leg.....	464,732	Dec. 8	1114	276	57	1356
Krein, Franz, and J. Flaig, St. Louis, Mo. Die for welding and swaging links.....	445,346	Jan. 27	2182	565	54	452
Kreitz, Theodore W., and A. Rosenbusch, Quincy, Ill. Automatic fire-extinguisher.....	450,161	Apr. 14	758	192	55	154
Krejci, Wenzel, and B. Kapinos, Jackson, Minn. Draw-bridge gate.....	445,117	Jan. 20	1828	473 474	54	372
Krekeler, Carl. (See Lauch and Krekeler.)						
Krell, Otto, St. Petersburg, Russia. Hydraulic elevator.....	454,872	June 30	2594	666	55	1670
Kren, John, Grand Rapids, assignor of one-half to H. Rauh, Walker, Mich. Extensible clothes-line-supporting post.....	448,582	Mar. 17	2132	534	54	1542
Krenclberg, Gertrude J., New York, N. Y. Water-closet seat.....	454,743	June 23	2378	611	55	1621
Kremer, Franklin W., Wadsworth, Ohio. Sewing-machine motor.....	463,721	Nov. 24	2408	631	57	1041
Kremer, John C., Wadsworth, Ohio. Fence.....	451,940	May 12	768	194	55	731
Krentler, Edwin O. and G. A., Detroit, Mich. Last for boots or shoes.....	456,994	Aug. 4	103	25	56	553
Krentler, George A. (See Krentler, Edwin O. and G. A.)						
Krepps, Virgil A., Kensico, N. Y., assignor to W. H. Rushforth, Rutherford, N. J. Check-rein-book.....	449,045	Mar. 24	2872	729	54	1692
Kress, George R., Pittsburg, Pa. Hollow braided lightning-rod.....	452,796	May 26	2186	548	55	1014
Kress, John, New York, N. Y. Hoof-pad.....	449,368	Mar. 31	3420	860	54	1799
Krietschmann, Michael, Vienna, assignor to J. Deckert, Weinhaus, near Vienna, Austria-Hungary. Car-coupling.....	450,969	Apr. 21	2060	508	55	415
Kretsinger, Frederick S., Fort Madison, Iowa. Agricultural fork.....	445,621	Feb. 3	162	43	51	543
Kretzschmar, Otto, Sharkey, assignor of one-third to E. A. Tewes, Minter City, Miss. Cotton-picker.....	445,786	Feb. 3	446	111	54	599
Krieckhaus, Fredrick, St. Louis, Mo. Self-measuring can for liquids.....	460,251	Sept. 29	2677	667	56	1611
Krieckhaus, Frederick, assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.....	450,913	Apr. 21	2000	492	55	401
Krieckhaus, Louis, <i>et al.</i> (See Heidel, Gustavos, assignor.)						
Krieg, Alexander. (See Montgomery, William, assignor.)						
Krieg, John K. (See Wikle, Johan J., assignor.)						
Krieger, John G., assignor to G. G. Schroeder, L. P. Wright, and C. Newbold, Washington, D. C. Trunk-lock.....	447,057	Feb. 24	2541	631	54	1032
Krieger, Julius, and A. Dalmer, Dresden, Germany. Brake-holder for velocipedes.....	445,118	Jan. 30	1829	474	54	372
Kring, A. W. (See Kring and Baughman, assignors.)						
Kring, Levi, and J. Baughman, Westerville, said Baughman assignor, by mesne assignments, to A. W. Kring, Franklin County, Ohio. Stump-extractor.....	445,676	Feb. 3	270	71	51	566
Krnka, Karel, Prague, Austria-Hungary. Revolving-magazine fire-arm.....	459,274	Sept. 22	2111	530	56	1497
Krnka, Karl, assignor to Krnka Repeating Rifle Company, Limited, London, England. Cartridge-cramp for magazine-guns.....	449,287	Mar. 31	3256	825	54	1772
Krnka Repeating Rifle Company. (See Krnka, Karl, assignor.)						
Kroell, Marzell, St. Charles, Mo. Nut-lock.....	454,364	June 16	1772	461	55	1501
Krohe, Frank, Rushville, Ill. Wire-reel.....	456,577	July 28	2031	537	56	412
Kromer, Wilhelm, Freiburg, Germany. Bush for bung-holes.....	466,171	Dec. 29	3479	889	57	1838
Krone, Johannes, assignor to F. Krupp, Essen, Germany. Hydraulic brake for ordnance.....	461,347	Oct. 13	1239	316	57	248
Krone, Johannes, assignor to firm of F. Krupp, Essen, Germany. Hydraulic brake for ordnance.....	462,970	Nov. 10	1199	311 312	57	792
Kronenberg, Edward, Philadelphia, Pa. Toy.....	459,140	Sept. 8	936	225	56	1255
Kropp, Louis F., Sioux City, Iowa. Bib.....	453,490	June 2	495	127	55	1211
Krottnauer, Paul, assignor of one-fifth to A. B. Bonneville, White Hall, Pa. Apparatus for the calcination of cement.....	447,155	Feb. 24	2727	675 676	54	1066
Krotz, Alvaro S., Defiance, assignor to H. K. Hitchcock, E. B. Miller, and B. G. Work, Akron, Ohio. Oil-filter.....	448,152	Mar. 10	1421	363	54	1398

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Krous, Henry, Philadelphia, Pa. Bottler's steaming-pan	464,774	Dec. 8	1190	296	57	1370
Krumbacher, Johann, Munich, Germany. Panorama-carrousel	455,546	July 7	400	104	56	78
Krumholz, August, Chicago, Ill. Feed-water heater and purifier	461,244	Oct. 13	1090	277	57	218
Krumm, Ralph E., Vicksburg, Mich. Hame	447,466	Mar. 3	337	83	54	1181
Krupp, Friedrich. (See Krone, Johannes, assignor.)						
Krupp, firm of Friedrich. (See Krone, Johannes, assignor.)						
Krupp, Firm of Friedr. (See Resow, Adolf T., assignor.)						
Kruschke, Rudolph C., Duluth, Minn. Electric show-case alarm	460,019	Sept. 22	2321	581	56	1535
Kruschke, Rudolph C., Duluth, Minn. Clasp-knife	462,141	Oct. 27	2566	644	57	517
Kruse Cash Register Company. (See Weiss, Carl W., assignor.)						
Kruse, Charles. (See Weiss, Carl W., assignor.)						
Kruse, Charles, New York, and C. W. Weiss, Brooklyn, N. Y. Cash indicator and recorder	447,031	Feb. 24	2495	621	54	1023
Kruse, John, New York, N. Y. Packing cigars	457,401	Aug. 11	798	205	56	689
Kruse, John H., Portland, Oreg. Wiring attachment for baling-presses	446,600	Feb. 17	1784	442	54	879
Kruse, Theodore. (See Johnson and Kruse.)						
Krusius, Emil, Solingen, Germany. Shears	444,983	Jan. 20	1629	418	54	334
Kubach, Charles D., Baltimore, Md. Construction of railway ties or sleepers	445,063	Jan. 20	1750	451	54	358
Kubec, Fred, assignor of two-thirds to M. F. Prouty and O. A. Matthews, Chicago, Ill. } Cash indicator and recorder	461,386	Oct. 13	1319	{ 333 } 334	{ 57 } 54	262
Kubey, Henry, Brooklyn, N. Y. Cigarette-machine	455,568	July 7	436	116	56	84
Kubler, John, Hot Springs, Ark., assignor to D. B. Teabeaut, Thomasville, Ga. Lock	447,957	Mar. 10	1131	284	54	1339
Kueffer, John, assignor to American Indicator and Improvement Company, San Francisco, Cal. Automatic operating mechanism for station-indicators	464,941	Dec. 8	1430	359	57	1419
Kuehne, Rudolph, assignor of one-half to B. A. Kipp, Milwaukee, Wis. Saw-table gage	449,369	Mar. 31	3421	860	54	1799
Kuehne, John, Detroit, Mich. Crossing for overhead trolley-wires	452,576	May 19	1831	460	55	935
Kuehne, John, assignor of one-fourth to E. Martyn, Detroit, Mich. Switch for overhead electric conductors	451,696	May 5	387	94	55	653
Kuenstler, Richard, Philadelphia, Pa. Tuning-peg for musical instruments	464,328	Dec. 1	510	122	57	1231
Kühl, Otto N., Altona, near Hamburg, Germany. Combined cane and table	450,603	Apr. 14	1445	355	55	284
Kuhn Crystallograph Manufacturing Company. (See Kuhn, Henry, assignor.)						
Kuhn, Edmund, Brooklyn, assignor to Manhattan Watch Company, New York, N. Y. Stop-watch	445,064	Jan. 20	1751	451	54	358
Kuhn, Edmund, New Albany, Ind. Stove-lid and lifter	465,865	Dec. 29	2960	756	57	1738
Kuhn, Edmund, assignor to E. Scanlan, Louisville, Ky. Pattern for casting hooks	445,812	Feb. 3	507	122	54	611
Kuhn, Edmund, New Albany, Ind., assignor to E. Scanlan, Louisville, Ky. Device for casting hooks	450,757	Apr. 21	1713	414	55	350
Kuhn, Frederick X., Buffalo, N. Y. Pump for ice-machines	465,276	Dec. 15	2022	517	57	1538
Kuhn, Henry, Springfield, Mo. Photographic-printing frame	465,277	Dec. 15	2023	517	57	1538
Kuhn, Henry, assignor to Kuhn Crystallograph Manufacturing Company, Springfield, Mo. Water-proof and sensitized photographic mount	450,963	Apr. 21	2051	506	55	413
Kuhn, Isaac, San Diego, Cal. Overalls, &c	464,826	Dec. 8	1264	316	57	1385
Kükenthal, Gustav, Brunswick, Germany. Automatic wire-cleaner for brick or tile machines	448,053	Mar. 10	1385	{ 327 } { 328 }	{ 54 } 54	1369
Kukkluck, Frederick, St. Louis, Mo. Apparatus for drying veneers	457,281	Aug. 4	560	148	56	637
Kulage, Joseph J., St. Louis, Mo. Brick-machine	452,710	May 19	2041	{ 512 } { 513 }	{ 55 } 55	978
Kumming, William, and T. Dowdell, Pittsburg, Pa. Detachable shaft pulley or collar	461,501	Oct. 20	1562	383	57	315
Kundtz, Rudolf, and J. Gedeon, Cleveland, Ohio. Saw-filing machine	459,912	Sept. 22	2178	{ 547 } { 548 }	{ 56 } 56	1508
Kunert, William H. (See Evans and Kunert.)						
Kunhardt, David, Aachen, Germany. Automatic telegraph	457,816	Aug. 18	1449	{ 377 } { 378 } { 379 }	{ 56 } 56	823
Kunhardt, David, Aachen, Germany. Telegraphy	458,585	Sept. 1	57	13	56	1077
Kunkel, Joseph, <i>et al.</i> (See Parker, Jonas, assignor.)						
Kunkel, Joseph, <i>et al.</i> (See Stewart, William J., assignor.)						
Kunkle, Allen A., <i>et al.</i> (See Kunkle, Kenton C., assignor.)						
Kunkle, Erastus B., assignor to himself and W. D. Bostwick, Fort Wayne, Ind. Safety-valve	446,757	Feb. 17	2032	506	54	927
Kunkle, Kenton C., assignor of seven-tenths to J. A. Bone, W. S. Dilatush, and A. A. Kunkle, Lebanon, Ohio. Mechanical movement	447,075	Feb. 24	2572	638	54	1038
Kunkle, Kenton C., assignor of seven-tenths to A. A. Kunkle, W. S. Dilatush, and J. A. Bone, Lebanon, Ohio. Grain-binder	463,219	Nov. 17	1588	{ 413 } { 414 }	{ 57 } 57	876
Küntze, Johannes, Nordhausen, Germany. Apparatus for pneumatic malting	458,174	Aug. 25	2027	526	56	940
Kunze, Ernst F. W. (See Weiss and Kunze.)						
Kurmayer, Karl, Vienna, Austria-Hungary. Electric-arc lamp	448,351	Mar. 17	1786	451	54	1477
Kursteiner, Mathias. (See Mick, Kursteiner, and Ianzén.)						
Kurtz, Ernest A. G., New York, N. Y. Display-stand	460,876	Oct. 6	520	133	57	102
Kurtz, Henry P., Goshen, Ind., assignor of one-half to W. W. Shannon and J. T. Shaw, Newark, Ohio. Windmill-regulator	461,185	Oct. 13	979	251	57	194
Kurtz, John A., Allegheny, Pa. Sheet-metal-flanging machine	449,624	Mar. 31	3848	963	54	1881
Kurz, Christoph F., Newark, N. J., assignor to M. Schmickle, New York, N. Y. Fastening for traveling-bags	456,040	July 14	1181	310	56	233
Kutsche, Oswald, Chicago, Ill. Refrigerator	447,467	Mar. 3	327	84	54	1181
Kutsche, Oswald, Chicago, Ill., assignor, by mesne assignments, to Allington & Curtis Manufacturing Company, of Michigan. Dust-collector	447,333	Mar. 3	82	23	54	1133
Kutsche, Oswald, Chicago, Ill., assignor, by mesne assignments, to Allington & Curtis Manufacturing Company, of Michigan. Dust-collector	457,493	Aug. 11	951	241	56	717
Kutsche, Oswald, Chicago, Ill., assignor, by mesne assignments, to Allington & Curtis Manufacturing Company, of Michigan. Process of and apparatus for separating dust from air	458,550	Aug. 25	2645	644	56	1056
Kuzel, Hans, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Azo dye	458,283	Aug. 25	2225		56	976
Kuzel, Hans, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Azo dye	458,284	Aug. 25	2227		56	976
Kuzel, Hans, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Amido-naphthal monosulphonic acid	458,285	Aug. 25	2227		56	976
Kuzel, Hans, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Amido-oxy-naphthaline disulphonic acid	458,286	Aug. 25	2228		56	976
Kydd, Robert W., Longueuil, Canada. Snow-skate	452,608	May 19	1884	474	55	946
Kyle, Augustus G. and E. J., assignors to S. C. Wagner, B. F. Emrich, and R. H. Sollenberger, Newville, Pa. Vegetable-cutter	446,167	Feb. 10	1090	268	54	728
Kyle, David M., Chicago, Ill. Lawn-mower	458,715	Sept. 1	257	61	56	1114

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Kyle, Edward J. (See Kyle, Augustus G. and E. J.)						
Kyle, George S., assignor of one-third to J. M. McDowell, Chambersburg, Pa. Dumping-wagon	453,491	June 2	496	128	55	1241
Kynett, William H., and C. W. Van Dusen, Battle Creek, Mich.; said Van Dusen assignor to said Kynett. Bed-pan	454,826	June 23	2515	647	55	1618
Kynoch, Charles, <i>et al.</i> (See Contright, Edgar, assignor.)						
Kyte, David V., Indianapolis, Ind., assignor to C. A. Stevens, New York, N. Y. Manufacture of white lead	459,946	Sept. 22	2222	.....	56	1516
L. A. Weyburn Company. (See Briggs, George S., assignor.)						
L. Wolff Manufacturing Company. (See Clifford, John, assignor.)						
L'Homedieu, John P., Setauket, N. Y. Pulverizer attachment for harrows	462,980	Nov. 10	1211	316	57	794
La Boiteaux, Frank M., assignor of one-half to H. Varwig, Cincinnati, Ohio. Electric motor	451,872	May 5	647	162	55	701
La Boiteaux, Frank M., assignor of one-half to H. Varwig, Cincinnati, Ohio. Fan	451,873	May 5	649	163	55	702
La Bonté, Adolphus, Brockton, assignor, by mesne assignments, to G. H. P. Flagg, Boston, Mass. Inseam-trimming machine	456,041	July 14	1192	311	56	233
La Burt, John, assignor of one-half to E. A. Page, New York, N. Y. Car-coupling	444,316	Jan. 6	527	137	54	105
La Burt, John, New York, assignor of one-half to W. H. Agricola, Brooklyn, N. Y. Electric block signal system	461,760	Oct. 20	1979	489 490	57	393
La Casse, Henry, and S. Wile, assignors to Bottlers' Specialty Company, Rochester, N. Y. Compressor mechanism	444,755	Jan. 13	1216	317	54	246
La Croix, John A., Chicago, Ill. Car-brake	451,328	Apr. 28	2632	650	55	534
La Dow, Charles, Albany, N. Y. Button-clasp	449,940	Apr. 7	441	110	55	86
La Dow, Charles, Albany, N. Y. Harrow	450,964	Apr. 21	2053	506	55	413
La Dow, Charles, Albany, N. Y. Button-fastener	451,419	Apr. 28	2762	683	55	559
La Dow, Charles, Albany, N. Y. Fastening device	451,420	Apr. 28	2763	683	55	559
La Dow, Charles, Albany, N. Y. Disk harrow	451,421	Apr. 28	2764	683	55	559
La Dow, Charles, Albany, N. Y. Harrow	451,422	Apr. 28	2767	684	55	560
La Dow, Charles, Albany, N. Y. Spring-tooth harrow	455,260	June 30	3286	832 833	55	1803
La Dow, Charles, Albany, N. Y. Harrow	455,261	June 30	3288	833	55	1803
La Dow, Charles, Albany, N. Y. Harrow	455,262	June 30	3289	833	55	1803
La Due, Charles H., New York, N. Y. Combined street-sweeper and excavator	460,476	Sept. 29	3023	757	56	1676
La Follette, Elery B., Clarksburg, W. Va. Door-check	453,930	June 9	1143	299	55	1374
La Follette, Harvey M., <i>et al.</i> (See Mains, John F., assignor.)						
La Fontaine, William H., Cleveland, Ohio. Safety-guard for cars	445,897	Feb. 3	627	154	54	635
La Hat, Sidney C., Alexandria, Minn. Boiler-cleaner	447,192	Feb. 24	2788	689	54	1078
La Jennesse, Adolphe, Alameda, Cal. Weather-strip	452,106	May 12	1068	270	55	784
La Monte, George, Bound Brook, N. J. Water-finishing paper	445,898	Feb. 3	627	154	54	635
La Point, Thomas T., J. H. Flanagan, and C. A. Thompson, New Haven, Conn. Conduit for electric wires	451,941	May 12	769	195	55	731
La Roche Electric Works. (See La Roche, Fredrick A., assignor.)						
La Roche, Fredrick A., Philadelphia, Pa., assignor to La Roche Electric Works. System of electrical distribution	453,597	June 2	652	167	55	1271
La Roche, Fredrick A., assignor to La Roche Electric Works and G. H. Earle, Jr., Philadelphia, Pa. System of electrical distribution	465,594	Dec. 22	2551	650	57	1648
La Rock, John, Chicago, Ill. Carpet-rag looper	461,482	Oct. 20	1535	376	57	309
La Veine, Edward N. (See Taylor, Elbert C., assignor.)						
Lacey, Fred, Adams, Mass. Shuttle-box-operating mechanism for looms	449,742	Apr. 7	150	37, 38	55	30
Lacey, Fred, Adams, Mass. Weft stop-motion for looms	459,841	Sept. 22	2055	517	56	1486
Lacey, John. (See Baker and Lacey.)						
Lacey, Thomas A., St. Paul, Minn. Rheostat for electric lamps	462,053	Oct. 27	2444	606	57	490
Lachanne, Jean, and J. Pasteur, Paris, France. Shears	445,700	Feb. 3	306	81	54	573
Lachomette, Prosper de, Lyons, France. Making ammonium sulphite	452,378	May 19	1512	374	55	877
Lacy, William, Jr., Los Angeles, Cal. Irrigating-hydrant	449,161	Mar. 31	3051	771	54	1734
Ladd, Leonard E. (See Jesson and Weed, assignors.)						
Ladd, William J. (See Munson and Ladd.)						
Lafayette, Edward S., North Smithfield, R. I. Cover, kettle, and plate handler	448,243	Mar. 17	1583	404	54	1437
Laferty, Erastus S., Indiana, assignor to L. H. Slagle and J. Sheasley, Franklin, Pa. Fence-machine	455,627	July 7	532	139	56	103
Laferty, Hugh W., Wilmington, Del. Centrifugal machine	449,327	Mar. 31	3339	842	54	1785
Lafite, Emile G., Santiago, Cuba. Ventilator or blower	462,142	Oct. 27	2587	644	57	517
Laforge Engine Company. (See Laforge and Barker, assignors.)						
Laforge, Frederick H., Waterbury, Conn., and H. J. Barker, Philadelphia, Pa., assignors to Laforge Engine Company, Jersey City, N. J. Scotch yoke	453,426	June 2	401	104	55	1223
Laforge, Frederick H., Waterbury, Conn., and H. J. Barker, Philadelphia, Pa., assignors to Laforge Engine Company, Jersey City, N. J. Scotch yoke for steam-engines	453,427	June 2	403	104	55	1223
Lagerquist, Gust., Minneapolis, Minn. Elevator	451,127	Apr. 28	2297	569	55	470
Lagerquist, Gust., Minneapolis, Minn. Elevator-brake	465,325	Dec. 15	2098	536	57	1552
Lagerstedt, Samuel S., Campello, Mass. Trolling-hook	463,519	Nov. 17	2049	537	57	965
Lahey, William, Stoneham, Mass. Belt-tightener for sole-edge-trimming machines	450,387	Apr. 14	1129	276 277	55	222
Lahmeyer & Co., W. (See Lahmeyer, Wilhelm, assignor.)						
Lahmeyer, Wilhelm, Aix-la-Chapelle, Germany. Regulating apparatus for electric currents	449,288	Mar. 31	3257	826 827	54	1772
Lahmeyer, Wilhelm, assignor to W. Lahmeyer & Co., Frankfort-on-the-Main, Germany. Circuit and switch for electric motors	463,605	Nov. 17	2211	582	57	995
Laidlaw, John, Glasgow, Scotland. Machine for forming bars into helices	456,829	July 28	2454	646 647	56	492
Laidlaw, John, Glasgow, Scotland. Centrifugal liquid-separator	463,058	Nov. 10	1323	342	57	817
Laidlaw, William A., and E. M. Cowley, Cherokee, Kans. Wire-bale-tie machine	461,348	Oct. 13	1241	316 317	57	248
Lain, Alonzo. (See Lain, Marion and A.)						
Lain, David E., Yonkers, N. Y. Magnetic separator	456,622	July 28	2113	558 559	56	428
Lain, Marion and A., Kansas City, Mo. Combined folding bed and dresser	451,492	May 5	72	18	55	593
Laird, James, Paterson, N. J. Scroll-sawing machine	444,071	Jan. 6	145	36	54	32
Laire, Georges de, Paris, France. Making isoeugenol	457,863	Aug. 18	1532	.....	56	838
Laire, Georges de, Paris, France. Making compounds of isoeugenol	457,864	Aug. 18	1533	.....	56	838
Lake, David, Hornellsville, N. Y., assignor to Whiffen-Lake Lasting Machine Company, Hamonton, N. J. Making presser-pads for lasting-machines	460,377	Sept. 29	2884	720	56	1650
Lake, David, assignor to Whiffen-Lake Lasting Machine Company, Pleasantville, N. J. Lasting-nippers	460,394	Sept. 29	2907	726	56	1654
Lake, George, Sherman, Mich. Cutter-bar adjuster	457,051	Aug. 4	173	43	56	567
Lake, John C. and S., Baltimore, Md. Dredge-lifting device	462,439	Nov. 3	354	27	57	618

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Lake, John C. and S., Baltimore, Md. Steering-gear	464,304	Dec. 1	477	114	57	1225
Lake, John H. (See Conrad and Lake.)						
Lake, Simon. (See Lake, John C. and S.)						
Lakin, Lemuel, St. Louis, Mo. Sanding apparatus for street-cars	454,683	June 23	2288	586	55	1605
Lakin, Thomas N. (See Hunter and Lakin.)						
Lalline, Jean-Baptiste, <i>et al.</i> (See Duplessis, Elouild, assignor.)						
Lalond, Alexandre. (See Dauphinais, Alfred, assignor.)						
Lamb, Benjamin F., Boston, Mass. Face-mask	450,515	Apr. 14	1319	324	55	260
Lamb, Benjamin F., Boston, Mass. Suspension-frame for garments	454,579	June 23	2113	545	55	1574
Lamb, Daniel M., Boston, Mass. Electric battery	461,023	Oct. 13	746	193	57	152
Lamb, Daniel M., Boston, Mass. Composition for electric batteries	461,024	Oct. 13	748	193	57	152
Lamb, Daniel M., Boston, Mass. Electric battery	461,025	Oct. 13	748	193	57	152
Lamb, Daniel M., Boston, Mass. Compound for electric batteries and preparing the same	461,026	Oct. 13	750	193	57	153
Lamb, Daniel M., Boston, Mass. Electric battery	461,027	Oct. 13	751	193	57	153
Lamb, Frank M., <i>et al.</i> (See Burling, Benjamin H., assignor.)						
Lamb, George W., Cumminsville, and B. G. Van Dyke, Ivanhoe, assignors of one-third to C. F. Hesser, Norwood, Ohio. Car-truck	450,813	Apr. 21	1814	440	55	368
Lamb, Isaac W., Colon, Mich. Glove	462,563	Nov. 3	546	132 133	57	655
Lamb Knitting Machine Manufacturing Company. (See Hadley, Ethan, assignor.)						
Lamb, Salem T., New Albany, Ind. Wagon-brake	455,106	June 30	3037	772	55	1755
Lamb, Watson F., assignor of one-half to A. M. Lyon, New York, N. Y. Cash-register	456,220	July 21	1445	382	56	293
Lambdin, James T., assignor of one-half to E. L. Fisher, Philadelphia, Pa. Plumb-level	444,705	Jan. 13	1126	291	54	231
Lamberson, S. William, <i>et al.</i> (See Foote, George C., assignor.)						
Lambert, Frank. (See Thomson and Lambert.)						
Lambert, Frank, Brooklyn, assignor to Thomson Meter Company, New York, N. Y. Manufacturing articles of combined hard rubber and metal	452,479	May 19	1691	425	55	909
Lambert, Frank, Brooklyn, assignor to Thomson Meter Company, New York, N. Y. Forming the teeth of face-gearing	452,480	May 19	1692	426	55	909
Lambert, Otto. (See Beach, Louis, assignor.)						
Lambert, Richard C. (See Crawford and Lambert.)						
Lambert, Thomas B. (See Carroll and Lambert.)						
Lambing, John S. (See Bonnell and Lambing.)						
Lambole, François X., and A. Jacobson, New York, N. Y. Button-clasp	462,143	Oct. 27	2588	644	57	517
Lamborn, Amos J. (See Richards, George H., assignor.)						
Lamborn, John E., and R. Richards, Dixon, Cal. Washing-machine	448,526	Mar. 17	2051	513	54	1527
Lamborn, Lewis, Philadelphia, Pa., assignor of one-half to N. H. Strong and W. W. Lamborn, Media, Pa. Ice-creeper	456,515	July 21	1935	510	56	386
Lamborn, Wilmer W., <i>et al.</i> (See Lamborn, Lewis, assignor.)						
Lamm, Carl, Stockholm, Sweden. Explosive compound	455,217	June 30	3226	.....	55	1792
Lamm, Robert M. (See Lütters, Jonathan, assignor.)						
Lamont, Robert P., and E. D. Bronner, Detroit, Mich. Roof	448,241	Mar. 17	1584	404	54	1438
Lamparter, Henry, Jr., St. Charles, Mo. Making corn-cob smoking-pipes	448,572	Mar. 17	2119	.....	54	1540
Lampert, Frederick E., San Francisco, Cal., assignor of one-half to A. J. Levake, Tacoma, Wash. Coating for piles, &c.	454,744	June 23	2379	.....	55	1624
Lampkin, Charles B., Bond's, Tenn. Hasp-lock	464,373	Dec. 1	574	140	57	1243
Lamplugh, James A., Birmingham, England. Bicycle-seat	446,355	Feb. 10	1400	343	54	790
Lamport, Abram N., New York, N. Y. Safety-car	453,558	June 2	592	151	55	1259
Lams, Louis, Lille, France. Metallic box	464,571	Dec. 8	864	213	57	1309
Lamson, Charles H., Portland, Me. Luggage-carrier for velocipedes	444,089	Jan. 6	171	43	54	37
Lamson, Charles H., Portland, Me. Package-carrier for velocipedes	450,673	Apr. 21	1600	384	55	320
Lamson, Charles H., Portland, Me. Package-carrier for velocipedes	452,977	May 26	2482	628	55	1070
Lamson Consolidated Store Service Company. (See Barri, Martin, assignor.)						
Lamson Consolidated Store Service Company. (See Cowley, James T., assignor.)						
Lamson Consolidated Store Service Company. (See Eichbaum, Walter L., assignor.)						
Lamson Consolidated Store Service Company. (See Farmer, Theodore P., assignor.)						
Lamson Consolidated Store Service Company. (See Fletter, Henry, assignor.)						
Lamson Consolidated Store Service Company. (See Foster, Charles E., assignor.)						
Lamson Consolidated Store Service Company. (See Holbrook, Zephaniah S., assignor.)						
Lamson Consolidated Store Service Company. (See Gornall, Richard, assignor.)						
Lamson Consolidated Store Service Company. (See McCarty, Robert A., assignor.)						
Lamson Consolidated Store Service Company. (See Newman, Nelson, assignor.)						
Lamson Consolidated Store Service Company. (See Williams, William H., assignor.)						
Lamson, Ebenezer G., deceased; P. E. Lamson, Brookline, administratrix, and assignor to W. L. Bruce, Boston, Mass. Upright case or tool-receptacle	456,728	July 28	2287	605	56	462
Lamson, Polly E., administratrix. (See Lamson, Ebenezer G.)						
Lamson, Victor A., Fairfield, Iowa. Sight	463,520	Nov. 17	2050	537	57	966
Lanaux, George A., New Orleans, La. Grain-cleaning machine	459,636	Sept. 15	1744	438	56	1418
Lancaster, Charles P., Sims, assignor of one-half to L. H. Tate, Montpelier, Ind. Railway-gate	463,994	Nov. 24	2836	735	57	1122
Lancaster, Hall & Pike, <i>et al.</i> (See Baker, James H., assignor.)						
Lancaster, James H. (See Parker, George.)						
Lancaster, James H., New York, and M. R. Conley, Brooklyn, N. Y. Retort-furnace for deoxidizing ore	447,779	Mar. 10	820	203 204	54	1280
Lancaster, John P., Goshen, Ind. Rail-chair	460,206	Sept. 29	2616	653	56	1599
Lancaster, Levi B., Massillon, Iowa. Planter	444,072	Jan. 6	147	37	54	32
Lanchester, Frederick W., London, England. Gas-engine governor	445,021	Jan. 20	1678	431	54	344
Lanchester, Frederick W., London, England. Gas-engine starter	459,403	Sept. 15	1357	340	56	1347
Lanchester, Frederick W., London, England. Gas-engine starter	459,404	Sept. 15	1360	340 341	56	1347
Lanchester, Frederick W., London, England. Gas-engine starter	459,405	Sept. 15	1363	341	56	1347
Lanchester, Frederick W., London, England. Gas-motor engine	465,480	Dec. 22	2351	602 603	57	1612
Land, Abel, Hudson, Mich. Wire fence	444,364	Jan. 6	594	153	54	118
Land, Abel, Hudson, Mich. Wire-fence machine	455,406	July 7	172	44, 45	56	36
Land, Charles H., Detroit, Mich. Muffle-furnace	446,947	Feb. 24	2354	586	54	997
Land, Charles H., Detroit, Mich. Restoring defective teeth	454,566	June 23	2036	538	55	1569
Landauer, Sigmund. (See Williams, Virgil L., assignor.)						
Landauer, Sigmund, Atlanta, assignor of one-half to V. L. Williams, Clarkston, Ga. Plow	462,801	Nov. 10	918	239	57	738
Lander, Percy W. J. (See Robinson and Lander.)						
Landers, Fray & Clark. (See Gérard, John, assignor.)						
Landers, Herbert M., Marshfield, Pa. Ironing-table	452,675	May 19	1987	498	55	966
Landers, William H. (See Kernan and Landers.)						
Landis, Abraham B., Waynesborough, Pa. Grinding-machine	444,121	Jan. 6	226	55	54	46

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Landis, Abraham B., Waynesborough, Pa. Grinding-machine	446,148	Feb. 10	1046	257	54	721
Landis, Charles and J., Chicago, Ill. Lamp	450,867	Apr. 21	1900	466	55	384
Landis, Ephraim, Philadelphia, Pa. Elevator	463,632	Nov. 24	2264	596	57	1014
Landis, Frank F., Waynesborough, Pa. Vehicle	445,032	Jan. 20	1679	432	54	344
Landis, Frank F., Waynesborough, Pa. Screen	446,687	Feb. 17	1925	480	54	905
Landis, Frank F., Waynesborough, Pa. Thrashing-machine	447,032	Feb. 24	2499	621 622	54	1024
Landis, Frank F., Waynesborough, Pa. Grain-separator	447,433	Mar. 3	263	66, 67	51	1167
Landis, Frank F., Waynesborough, Pa. Grain-cleaning device	447,834	Mar. 10	918	230 231	54	1299
Landis, Frank F., Waynesborough, Pa. Fan-blower	449,743	Apr. 7	154	38	55	31
Landis, Frank F., Waynesborough, Pa. Grain-pan for thrashing-machines	454,365	June 16	1773	461	55	1502
Landis, Frank F., Waynesborough, Pa. Steam-boiler	456,149	July 21	1337	355	56	273
Landis, Frank F., Waynesborough, Pa. Speed-governor	456,150	July 21	1339	355	56	273
Landis, Frank F., Waynesborough, Pa. Device for cooling shaft-bearings	459,755	Sept. 22	1923	484	56	1460
Landis, Frank F., Waynesborough, Pa. Baffle-plate for boilers	464,305	Dec. 1	478	115	57	1225
Landis, Harry D., Bellefonte, Pa. Thill-coupling	455,218	June 30	3327	819	55	1792
Landis, Israel L., Lancaster, Pa. Hedge	448,527	Mar. 17	2051	513	54	1527
Landis, Israel L., Lancaster, Pa. Device for securing handles to tools	450,944	Apr. 21	2001	493	55	404
Landis, Israel L., Lancaster, Pa. Metallic curbing	456,995	Aug. 4	104	26	56	553
Landis, Israel L., Lancaster, Pa. Metallic curbing	457,886	Aug. 18	1576	409 410	56	846
Landis, Joseph. (See Landis, Charles and J.)						
Landis, Nathan Y. (See Sanderson, Mecke, and Landis.)						
Landon, Edwin R., Chicago, Ill. Metal door-mat	454,439	June 16	1894	494	55	1525
Landon, George W., Relay, assignor to Landon & Kent, Baltimore, Md. Apparatus for treating composition for ornamenting moldings	447,733	Mar. 3	729	183	54	1255
Landon & Kent. (See Adams, Theodore M., assignor.)						
Landon & Kent. (See Landon, George W., assignor.)						
Landon, W. J., et al. (See Morgenerier and Bergeron, assignors.)						
Landon, William E., Philipsburg, Pa. Radiator	457,648	Aug. 11	1173	301	56	761
Landon, William E., Philipsburg, Pa. Radiator	457,649	Aug. 11	1174	301	56	761
Landon, Willis H., assignor of one-half to B. F. Hunt, Baltimore, Md. Graining-roller	449,079	Mar. 24	2920	741	54	1701
Landrith, Jane L., Marshfield, Oreg. Rolling-pin combined with other implements	456,042	July 14	1184	311	56	233
Landsberg, Valentin. (See Suchland, Theodor, assignor.)						
Landvoigt, Dorus W., Washington, D. C. Book-binding	459,294	Sept. 8	1172	285	56	1301
Lane, A. J., et al. (See Dustin, Frank J., assignor.)						
Lane, Almeron M., Meriden, Conn. Clock striking mechanism	445,607	Feb. 3	141	36	54	538
Lane, Almeron M., Meriden, Conn. Four-hundred-day clock	462,009	Oct. 27	2379	589 590	57	478
Lane, Almeron M., Meriden, Conn. Mechanical movement	462,010	Oct. 27	2381	590	57	479
Lane, Almeron M., Meriden, Conn. Clock-key	462,011	Oct. 27	2383	591	57	479
Lane, Carrie M., et al. (See Sperry, John, assignor.)						
Lane, Charles C., assignor to Hughes & Co., San Diego, Cal. Roller quartz-mill	456,623	July 28	2117	559	56	429
Lane, Frederick, et al. (See Small, Frederick E., assignor.)						
Lane, Ira G., New York, N. Y. Street letter-box	446,257	Feb. 10	1253	306	54	760
Lane, Ira G., New York, N. Y. House-door letter-box	446,258	Feb. 10	1255	306	54	760
Lane, Ira G., New York, and A. H. Lovejoy, Whitestone, N. Y. Boiler attachment for ranges	462,978	Nov. 10	1209	315	57	793
Lane, Julius S. (See Pitkin and Lane.)						
Lane, Nathan C., Washington, D. C. Marking-stamp	461,116	Oct. 13	870	224	57	175
Lane, Thomas W., Boston, Mass., assignor to Electric Gas Lighting Company, of Maine. Electric gas-lighter	444,706	Jan. 13	1127	291	54	231
Lane, Thomas W., Boston, Mass., assignor to Electric Gas Lighting Company, of Maine. Automatic electric-igniting device	444,896	Jan. 20	1475	381	54	304
Lane, William S. (See Drake, George W., assignor.)						
Laney, Thomas G. (See Turton, Mordecai, assignor.)						
Laney, Thomas G., assignor of one-half to M. Turton, Lima, Ohio. Pumping mechanism for oil-wells	448,573	Mar. 17	2120	531	54	1540
Lang, Albert B., St. Louis, Mo. Automatic cord-gripper for self-binding harvesters	458,467	Aug. 25	2513	611	56	1030
Lang, Charles J., South Orange, N. J. Refrigerator	457,087	Aug. 4	244	63	56	580
Lang, Gustav, assignor of one-half to L. Gilson and J. Jacobs, San Francisco, Cal. Centrifugal separator	460,814	Oct. 6	435	109 110	57	87
Lang, Jules, and D. W. Evans, Chicago, Ill. Apron-belt	461,128	Oct. 13	885	230	57	178
Lang, Julius, Jr. (See Sweeney, John M., assignor.)						
Lang, Matthew, assignor, by mesne assignments, of one-half to East End Marble Company, Akron, Ohio. Die for the manufacture of marbles	449,256	Mar. 31	3205	809	54	1763
Lang, William H. (See Cooks, James H., assignor.)						
Langdon, James. (See Dubey, Edward A., assignor.)						
Langdon-Davies, Charles, assignor to Phonopore Syndicate, Limited, London, England. Telegraph-receiver	453,261	June 2	129	35	55	1172
Langdon, Nelson M., Port Henry, N. Y. Tynere	459,470	Sept. 15	1458	367	56	1365
Langdon, William O., Springfield, Ill. Top for vehicles	460,308	Sept. 29	2776	692	56	1630
Lange, Annie, Leicester, England. Skirt-elevator	455,752	July 14	747	196	56	152
Lange, Herman O., Muskegon, Mich. Log-turner	460,976	Oct. 13	680	176	57	140
Lange, Herman O., Muskegon, Mich. Log-turner for saw-mills	463,334	Nov. 17	1772	464	57	910
Lange, Hermann L. (See Peacock and Lange.)						
Lange, Philip, assignor, by mesne assignments, to Westinghouse Electric and Manufacturing Company, Pittsburg, Pa. Wall-socket for incandescent electric lamps	450,628	Apr. 21	1492	366	55	301
Lange, Rudolf. (See Polakoff and Lange.)						
Langeay, Lucretia J. (See Hornberger and Langeay.)						
Langelier, Antoine J., Providence, R. I. Machine for swaging and pointing	462,440	Nov. 3	355	87	57	618
Langenan, William C., Brooklyn, Ohio. Corn-sheller	450,629	Apr. 21	1493	367	55	301
Langenberg, Julius, Ohligs, Germany. Scissors or shears	453,908	June 9	1113	291	55	1367
Langenfeld, Arthur, New York, N. Y. Hydraulic embossing-machine	453,410	June 2	369	96	55	1216
Langford, Ira W., Kansas, Ill. Can-filling machine	462,491	Nov. 3	424	103	57	631
Langill, Charles H., Everett, assignor to G. D. Lund, Boston, Mass. Die	454,830	June 23	2522	648	55	1649
Langley, Frank C., et al. (See Contright, Edgar, assignor.)						
Langley, George W. (See McWhirter, Langley, and Upton.)						
Langley, John W., Edgewoodville, assignor of one-half to Hunt & Clapp, Pittsburg, Pa. Manufacturing alloys of aluminium	451,404	Apr. 28	2738	.....	55	555
Langley, John W., Edgewoodville, assignor of one-half to Hunt & Clapp, Pittsburg, Pa. Aluminium alloy	451,405	Apr. 28	2740	.....	55	555
Langley, John W., Edgewoodville, assignor to Hunt & Clapp, Pittsburg, Pa. Alloy	451,406	Apr. 28	2741	.....	55	555
Langstroth, John A., San Francisco, Cal. Mechanical ledger	453,306	June 2	195	53	55	1155

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Lanier, Buchanan, <i>et al.</i> (See Brooks, Benjamin F. C., assignor.)						
Lanier, Madison. (See Rains and Lanier.)						
Laning, J. F. (See Fleharty, William F., assignor.)						
Lanker, Clinton, St. Joseph, Mo. Potato digger and harvester	453,909	June 9	1114	{ 291 292	55	1367
Lankford, James M., assignor of one-half to C. E. Foley, Eufaula, Indian Ter. Cotton-chopper	463,232	Nov. 17	1604	418	57	879
Lankford, John E. (See Lankford, William I. and J. E.)						
Lankford, William I. and J. E., Bedford City, Va. Car-coupling	446,356	Feb. 10	1403	344	54	790
Lannert, John A. (See Jeavons and Lannert.)						
Lannert, John A., Cleveland, Ohio. Watchman's time-recorder	455,440	July 7	225	58	56	46
Lannert, John A., and W. R. Jeavons, Cleveland, Ohio. Vapor-burner	455,966	July 14	1073	281	56	212
Lannert, John A., and W. R. Jeavons, Cleveland, Ohio. Vapor-burner	464,078	Dec. 1	107	27	57	1158
Lannoy, Francois, Tiffin, Ohio. Making flashed glass	451,618	May 5	265	63	55	629
Lanphear, Oscar A., Cincinnati, Ohio. Dry-air closet	464,197	Dec. 1	298	73	57	1190
Lansberg Brake Company. (See Barnes and Marshall, assignors.)						
Lansberg Brake Company. (See Lansberg, Frank, assignor.)						
Lansberg Brake Company. (See Pickles, Charles K., assignor.)						
Lansberg, Frank, assignor to Lansberg Brake Company, St. Louis, Mo. Air-brake	445,899	Feb. 3	629	155	54	635
Lanterman, Alvin P., Chicago, Ill. Mortising-chisel	444,596	Jan. 13	967	251	54	200
Lanum, David. (See Blume and Lanum.)						
Lanyon, Josiah. (See Lanyon, William, Jr., and J.)						
Lanyon, William, Jr., and J., Pittsburg, Kans. Damper for furnaces	444,958	Jan. 20	1597	{ 407 408	54	326
Lapham, Joseph H., Cleveland, Ohio. Wash-board	452,884	May 26	2325	586	55	1039
Lapham, Reed I., Clifton, Mo. Portable feed-rack	457,784	Aug. 18	1399	363	56	813
Lapham, Valentine, Chicago, Ill., assignor to E. T. Baker, Bridgeport, Conn. Type-writer cabinet	459,406	Sept. 15	1365	342	56	1348
Laporte, Joseph C., Pointe Bleue Mission, Quebec, Canada. Automatic gate	459,007	Sept. 8	717	176	56	1213
Lapp, John, Honeye Falls, N. Y. Boiler	452,379	May 19	1514	375	55	878
Lappe, Martin, Allegheny, assignor of two-thirds to H. W. and G. A. Urling, Pittsburg, Pa. Non-explosive can	464,606	Dec. 8	915	225	57	1320
Lappin, John W. (See Cloud, William H., assignor.)						
Lapworth, William, Easthampton, assignor to Hopedale Elastic Fabric Company, Hopedale, Mass. Elastic or corded fabric	445,065	Jan. 20	1752	452	54	358
Lapworth, William, assignor to Hopedale Elastic Fabric Company, Hopedale, Mass. Weft stop-motion for looms	445,147	Jan. 20	1883	{ 486 487	54	383
Lapworth, William, assignor to Hopedale Elastic Fabric Company, Hopedale, Mass. Woven elastic or corded fabric	454,366	June 16	1774	{ 461 462	55	1502
Lara, Guadalupe L. de. (See Castaños and de Lara.)						
Laraway, George W., assignor of one-half to J. E. West, St. Cloud, Minn. Machine for forming hollow ware from pulp	462,802	Nov. 10	919	240	57	738
Lardner, Charles, Topeka, Kans. Hay fork or grapple	456,624	July 28	2118	560	56	429
Larew, William H., Mariposa, Cal. Many-surfaced blackboard	458,852	Sept. 1	472	113	56	1156
Larew, Preston T., and J. W. Thomas, Chicago, Ill. Making rolled metal rods or bars	450,330	Apr. 14	1034	254	55	205
Larimer, Joseph M., Chicago, Ill. Architectural column	453,341	June 2	254	67	55	1196
Larimer, Joseph M., Chicago, Ill. Metal post	463,317	Nov. 17	1746	457	57	906
Larimer, Joseph M., Chicago, Ill. Architectural column	463,318	Nov. 17	1748	{ 457 458	57	906
Larish, Joseph W., trustee. (See Clausen, William H., assignor.)						
Larkin, Albert L., Indianapolis, Ind. Changeable sign	445,838	Feb. 3	541	132	54	617
Larkin, E. D. (See Johnson, Alexander, assignor.)						
Larkin, George H., and J. Tomkins, St. Paul, Minn. Trolley-pole mechanism	454,522	June 23	2018	523	55	1557
Larkin, John M., Memphis, Tenn. Band-tye for cotton-bales	461,530	Oct. 20	1617	395	57	324
Larkins, Emmet E., Russellville, Ky. Kitchen utensil	458,175	Aug. 25	2028	526	56	940
Larsen, Carl W., Medical Lake, Wash. Plow	460,020	Sept. 22	2322	582	56	1536
Larsen, Ivert, Chicago, Ill. Breech-loading gun	458,704	Sept. 1	240	57, 58	56	1111
Larson, August, Wausau, Wis. Potato-digger	451,329	Apr. 28	2633	651	55	535
Larson, Chris, Denver, Colo. Desk for type-writing machines	465,443	Dec. 15	2290	{ 587 588	57	1591
Larson, John. (See King, Leach, and Larson.)						
Larson, Victor, Minneapolis, Minn. Car-coupling	458,631	Sept. 1	129	29	56	1091
Lary, Morris, New York, N. Y. Sieve for sifting flour	454,599	June 23	2160	558	55	1581
Lasack, Adolph and A., Oxford Junction, Iowa. Hay-loader	453,492	June 2	498	128	55	1242
Lasack, Albert. (See Lasack, Adolph and A.)						
Lasar, Charles A. C., St. Louis, Mo. Plumb-level	449,681	Apr. 7	51	13	55	12
Lasar, Godfrey H., St. Louis, Mo. Band-cutter and feeder	455,219	June 30	3228	820	55	1792
Lasar, Godfrey H., St. Louis, Mo. Sash-fastener	456,996	Aug. 4	105	26	56	553
Lasar, Godfrey H., St. Louis, Mo. Type-writing machine	463,366	Nov. 17	1832	479	57	922
Lascell, George W., <i>et al.</i> (See Sampson, Winslow F., assignor.)						
Lascell, George W., Lynn, Mass. Sewing-machine needle	459,913	Sept. 22	2180	548	56	1508
Lash, John F., assignor to Z. A. Lash, Toronto, Canada. Ink-well	466,247	Dec. 29	3590	917	57	1859
Lash, Tito M. (See Williams and Lash.)						
Lash, Zebulun A. (See Lash, John F., assignor.)						
Lasher, Morgan E., assignor of one-half to G. F. Beardsley, Champaign, Ill. Road grader and ditcher	460,919	Oct. 6	596	151	57	116
Laskey, Stephen, Chicago, Ill. Hemmer or feller for sewing-machines	457,785	Aug. 18	1400	363	56	814
Lasserre, Charles H., Fernandina, Fla., assignor to H. R. Duval, Islip, N. Y., J. A. Henderson, Tallahassee, and D. E. Maxwell, Fernandina, Fla. Truss-rod and draw-bar for cars	457,957	Aug. 18	1700	445	56	870
Latch, Theodore, Joliet, Ill. Rotary engine	453,668	July 7	597	157	56	116
Latham, Alfred. (See Henderson, James L., assignor.)						
Latham, Cyrus H., <i>et al.</i> (See Jenne, Henry S., assignor.)						
Latham, William H., Fitchville, Conn. Shuttle for sewing-machines	449,682	Apr. 7	52	13	55	12
Lathe, James E. (See Roberts and Lathe.)						
Lathrop, Francis. (See Cohen, Joseph B., assignor.)						
Lathrop, Thomas A., Canton, Ohio. Hydrocarbon vaporizer and burner	445,225	Jan. 27	2011	517	54	417
Latil, Julius, Baton Rouge, La. Harness-saddle	455,597	July 7	486	126	56	94
Latimer Cash Register Company. (See King, James D., assignor.)						
Latimer Cash Register Company. (See Latimer, William G., assignor.)						
Latimer, John W., assignor to Milwaukee Harvester Company, Milwaukee, Wis. Sheaf-carrier	452,380	May 19	1515	{ 375 376	55	878
Latimer, Samuel A., Long Lane, Mo. Fruit-evaporator	462,144	Oct. 27	2588	645	57	518
Latimer, Thomas H., and F. A. Fletcher, assignors to Bagley & Sewall Company, Watertown, N. Y. Paper-making machine	447,441	Mar. 17	1927	485	54	1503

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Latimer, William G., assignor to Latimer Cash Register Company, Detroit, Mich. Cash-register	448,245	Mar. 17	1585	405	54	1438
Latimer, William G., assignor to Latimer Cash Register Company, Detroit, Mich. Cash-register	451,493	May 5	73	19	55	593
Latimer, William G., assignor to Latimer Cash Register Company, Detroit, Mich. Key-locking device for cash-registers	452,845	May 26	2260	567	55	1028
Latimer, William G., assignor to Latimer Cash Register Company, Detroit, Mich. Cash register and indicator	452,810	Sept. 1	391	94	56	1140
Latimer, William G., assignor to Latimer Cash Register Company, Detroit, Mich. Cash register and indicator	452,811	Sept. 1	393	95	56	1141
Latimer, William G., assignor to Latimer Cash Register Company, Detroit, Mich. Cash register and indicator	461,636	Oct. 20	1783	439	57	355
Latimer, William G., assignor to Latimer Cash Register Company, Detroit, Mich. Cash-till for cash-registers	461,637	Oct. 20	1784	439	57	355
Latsbaw, Joseph W., et al. (See Finley, Norval H., assignor.)						
Latta, Emmit G., Friendship, N. Y. Velocipede	444,637	Jan. 13	1021	266	54	210
Latta, Emmit G., Friendship, N. Y. Velocipede	447,434	Mar. 3	266	67	54	1168
Latta, Emmit G., Friendship, N. Y. Velocipede	448,442	Mar. 17	1928	485 486 460 461	54	1503
Latta, Emmit G., Friendship, N. Y. Handle for velocipedes	452,577	May 19	1835	460 461	55	936
Latta, Emmit G., Friendship, N. Y. Saddle for velocipedes	455,882	July 14	947	248	56	190
Latta, Emmit G., Friendship, N. Y. Chain-gearing	456,729	July 28	2228	606	56	462
Latta, Emmit G., Friendship, N. Y. Wheel	457,494	Aug. 11	953	241 242 253 254	56	717
Latta, Emmit G., Friendship, N. Y. Velocipede	461,191	Oct. 13	989	254	57	197
Latta, Emmit G., Friendship, N. Y. Velocipede-saddle	464,653	Dec. 8	993	248	57	1335
Lan, Fredrick J., Newark, N. J. Latch	451,638	May 5	302	73	55	636
Lan, Hugo, Dresden, Germany. Adjustable axle for cars	457,786	Aug. 18	1404	364	56	814
Laubscher, Alexander, assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Feller and hemmer for sewing-machines	461,581	Oct. 20	1691	414	57	339
Lauch, Richard, and C. Krekeler, assignors to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Blue-green azo dye	464,775	Dec. 8	1191		57	1370
Laudaner, Leon. (See Shaeffer, Philip J., assignor.)						
Laughlin, John, et al. (See Josef, Edward E., assignor.)						
Lathoff, Frank, Detroit, Mich. Preparation of cereals	451,059	Apr. 28	2195	542	55	450
Lathoff, Joseph, Detroit, Mich. Tobacco-pipe	459,077	Sept. 8	830	201	56	1233
Lauman, Charles H., Pittsburg, Pa. Coal-washing machine	464,881	Dec. 8	1341	337	57	1401
Laun, Franz J., Villingen, Germany. Pneumatic tool holding and operating device	450,782	Apr. 21	1755	426	55	358
Laun, Henry W., Englewood, Ill. Measuring-vessel	446,259	Feb. 10	1257	306	54	760
Laureau, Louis G. (See Strobel, Lewis, and Laureau.)						
Laurencot, Edward W., Hoboken, N. J. Annular lens	451,330	Apr. 28	2635	651	55	535
Laurent-Cély, Arthur M. F., Paris, France, and I. A. Timmis, London, England. Secondary battery	446,527	Feb. 17	1685	412 413	54	859
Laurie, Walter H., Montreal, Canada. Cut-off valve	452,978	May 26	2483	628	55	1071
Lauritsen, Laurits J. (See Lund and Lauritsen.)						
Lanten, Edward A., Mount Vernon, assignor to A. Wittnauer, New York, N. Y. Traveler's watch-case	449,370	Mar. 31	3424	860	54	1800
Lauterback, Edward G., assignor to A. Booth, Chicago, Ill. Dip-soldering machine	445,956	Feb. 3	716	175	54	653
Laval, Carl G. P. de, assignor to Aktiebolaget Separator, Stockholm, Sweden. Churn	460,585	Oct. 6	66	18	57	15
Laval, Carl G. P. de, assignor to Aktiebolaget Separator, Stockholm, Sweden. Centrifugal separator	463,794	Nov. 24	2504	653 654	57	1059
Laval, Gustaf de, assignor to Aktiebolaget Separator, Stockholm, Sweden. Centrifugal separator	445,066	Jan. 20	1754	452	54	358
Lavens, Erwin. (See Lieb and Lavens.)						
Lavery, Richard, Boston, Mass. Metal-flanging machine	450,240	Apr. 14	898	223	55	179
Lavery, Richard, Boston, Mass. Metal-bending machine	450,241	Apr. 14	900	223	55	179
Lavette, Harry C., Chicago, Ill. Envelope for photographs, &c	460,264	Sept. 29	2701	673	56	1616
Law, Emerson W. (See Barr and Peck, assignors.)						
Law, James T. (See Millers, August, assignor.)						
Law, John, Madelia, Minn. Hay-sling	464,975	Dec. 15	1497	376	57	1441
Law, Ovid B., Toledo, Ohio. Toy	459,868	Sept. 22	2102	528	56	1495
Law, Susan L., New York, N. Y. Puzzle	463,425	Nov. 17	1926	503	57	940
Lawall, Elmer H., et al. (See Pocock, Francis A., assignor.)						
Lawler, James J., Scranton, Pa. Electrical sewer-gas indicator	465,278	Dec. 15	2024	517	57	1538
Lawless, Philip C., Allegheny, Pa. Flexible piping for pneumatic brakes, &c	445,250	Jan. 27	2045	525 526	54	423
Lawless, Philip C., Wilmerding, Pa. Pipe-coupling	448,966	Mar. 24	2752	695	54	1668
Lawley, George F., Boston, Mass. Davit for boats	446,357	Feb. 10	1404	344	54	791
Lawrance, Charles S. (See Salley, Daniel J., assignor.)						
Lawrence, Alvin, Lowell, Mass. Making tubes	445,854	Feb. 3	566	138	54	622
Lawrence, Arthur M., New York, N. Y. Razor-strop	454,483	June 23	1958	511	55	1546
Lawrence, Benjamin, assignor to L. Lawrence, New York, N. Y. Letter or bill file	457,562	Aug. 11	1047	268	56	737
Lawrence, George R., Manteno, assignor of one-half to C. H. Oakwood, Danville, Ill. Telephone enunciator or indicator	444,780	Jan. 13	1253	325	54	253
Lawrence, George W. (See Hardin, John M., assignor.)						
Lawrence, John, Uckfield, England. Device for stopping leakage in hose or other pipes	454,279	June 16	1643	432	55	1478
Lawrence, John F. (See Bales, Isaac, assignor.)						
Lawrence, Louisa. (See Lawrence, Benjamin, assignor.)						
Lawrence, Theodore F. (See Robinson, John R., assignor.)						
Lawrence, Theodore F. (See Terry, Charles H., assignor.)						
Lawrence, Washington H., Cleveland, Ohio. Carbon for electric-arc lamps	454,873	June 30	2595	666	55	1670
Lawrence, William A. (See Whiting and Lawrence.)						
Lawrence, William B., Columbus, Ohio. Printing-press	447,491	Mar. 3	379	92, 93	54	1189
Lawrenz, William F., Duluth, Minn. Adding-machine	456,419	July 21	1777	470 471 185 186	56	355
Lawry, Ira F., Taunton, Mass. Carding-machine	457,354	Aug. 11	725	185 186	56	674
Laws, Benjamin T., assignor of one-half to A. B. Fullilove, Vaiden, Miss. Car-coupling	446,528	Feb. 17	1669	414	54	860
Laws, John A., Laws, Tex. Out-cutter	463,059	Nov. 10	1325	343	57	817
Lawshe, Isaac G., Sioux Falls, S. D. Time-indicating device for musicians	445,119	Jan. 20	1830	474	54	373
Lawson, Allen J., Brighton, Canada. Centrifugal honey-extractor	456,043	July 14	1185	312	56	234

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Lawson, Arthur T. and F. W., and S. Dear, Leeds, England. Machine for preparing flax, hemp, jute, wool, and other fibers	443,999	Jan. 6	21	5, 6	54	7
Lawson, Charles. (See Mitchell and Lawson.)						
Lawson, Eugene, Wilkes-Barré, Pa. Toilet-comb	450,162	Apr. 14	759	192	55	154
Lawson, Frederick W. (See Lawson and Dear.)						
Lawson, Henry W., New Hope, Tex. Baby-walker	451,128	Apr. 28	2299	570	55	470
Lawson, John, Michigamme, Mich. Dumping-car and operating mechanism therefor	446,758	Feb. 17	2034	506 507	54	927
Lawson, Samuel, assignor to himself and A. T. Welch, New York, N. Y. Igniting device for gas-engines	447,958	Mar. 10	1132	284	54	1339
Lawson, Walter H., assignor of one-half to T. L. Partridge, Detroit, Mich. Coffin-handle	462,492	Nov. 3	425	104	57	632
Lawter, Benjamin H., Ladoga, Ind. Saw-mill skid	463,865	Nov. 24	2627	684	57	1082
Lawton, Charles H. (See Curtis, Rowland K., assignor.)	464,137	Dec. 1	193	47	57	1174
Lawton, James B., Cincinnati, Ohio, and J. A. Mergenthal, Newport, Ky.; said Mergenthal assignor to said Lawton. Machine for compressing and stamping soap	448,656	Mar. 24	2273	569 570 520 521	54	1576
Lawton, Joseph J., Hartsville, S. C. Fertilizer-distributor	461,838	Oct. 27	2114	521	57	427
Laybourn, Myron H., New Windsor, Colo. Flume or conduit	444,496	Jan. 13	818	213	54	171
Layer, William C., and E. N. Taylor, Milwaukee, Wis. Carving-machine	460,340	Sept. 29	2230	704	56	1640
Layton, Edward L., Trenton, N. J. Coal-wagon	463,251	Nov. 17	1640	427 428	57	886
Lazarus, Samuel, Sherman, Tex. Means for ventilating cars	444,054	Jan. 6	111	28	54	25
Lazarus, Samuel and T., Jersey City, N. J. Baby-carriage	460,207	Sept. 29	2617	654	56	1599
Lazarus, Threase. (See Lazarus, Samuel and T.)						
Lazerus, Samuel. (See Stoner, Jacob B., assignor.)						
Le Baron, John F., Mandarin, Fla. Railway-spike	453,648	June 9	743	191	55	1296
Le Bean, John F., Toledo, Ohio. Filter	451,060	Apr. 28	2195	543	55	450
Le Beau, Joseph L., Tipton, Ind. Washing-machine	450,464	Apr. 14	1242	303	55	243
Lé Blanc, William, Boston, Mass. Fog-horn	454,280	June 16	1644	432	55	1478
Le Clair, George, assignor of one-half to C. C. Brown, Mexico, N. Y. Tobacco-cutting machine	460,341	Sept. 29	2832	704	56	1641
Le Clair, George E., assignor to F. E. Neitzel, Cleveland, Ohio. Tobacco-cutting machine	457,402	Aug. 11	799	206	56	689
Le Count, Charles W., South Norwalk, Conn. Lathe-dog	453,761	June 9	919	239	55	1330
Le Duc, Lucy. (See Tallerdar, Franklin G., assignor.)						
Le Febvre, Francis X., Claremont, N. H. Label-rack	453,149	May 26	2761	695	55	1124
Le Fevre, Egbert. (See Keen and Haarmann, assignors.)						
Le Fevre, Solomon H., Tottenville, N. Y. Rudder-lock for steering apparatus	460,706	Oct. 6	285	69	57	56
Le Garde, Ellen, Providence, assignor to Narragansett Machine Company, Incorporated, Pawtucket, R. I. Dumb-bell	466,276	Dec. 29	3640	931	57	1868
Le Grand, Lewis W., and J. Klotz, West Pittston, Pa. Mining-machine	464,374	Dec. 1	574	140 141	57	1243
Le Mieux, Lucius A., Seymour, Wis. Steam-engine valve	465,670	Dec. 22	2668	680	57	1671
Le Mieux, Lucius A., Seymour, Wis. Cross-head for steam-engines	465,671	Dec. 22	2669	681	57	1671
Le Roy, Charles J., assignor of one-half to R. T. Hill, St. Louis, Mo. Hydraulic brick-machine	450,770	Apr. 21	1733	419 420	55	354
Le Sueur, Arthur. (See Calderwood and Le Sueur.)						
Le Sueur, Ernest A., Ottawa, Canada, assignor of one-half to C. N. Waite, Newton, Mass. Electrolytic apparatus	450,103	Apr. 7	669	169 170	55	131
Le Sueur, Ernest A., Ottawa, Canada, assignor of one-half to C. N. Waite, Newton, Mass. Electrolytic cell	450,104	Apr. 7	672	170	55	131
Le Sueur, Ernest A., Ottawa, Canada, assignor of one-half to C. N. Waite, Newton, Mass. Carbon electrode for electric batteries	450,105	Apr. 7	674	170	55	132
Le Sueur, Ernest A., Ottawa, Canada, assignor of one-half to C. N. Waite, Newton, Mass. Diaphragm for electrolytic cells	455,451	July 7	242		56	49
Le Turcq des Rosiers, Nicolas L., Etain, France. Collecting the aromatic and volatile substances from coffee	449,758	Apr. 7	177	44 258 259	55	36
Le Van, William B., Philadelphia, Pa. Steam-boiler setting	457,537	Aug. 11	1009	259	56	729
Lea, Edward S. (See Montague and Lea.)						
Lea, Ernest C., Kingston-on-Thames, England. Sewing-machine	453,262	June 2	131	35	55	1173
Leach, Arthur A. (See Welty and Leach.)						
Leach, Edwin, Sellersburg, Ind. Mail-bag catcher	452,711	May 19	2044	513 514	55	978
Leach, Edwin, Brooklyn, N. Y. Decorating watch-cases	454,946	June 30	2747	700	55	1698
Leach, Hosea W., trustee. (See Cook, Almerin S., assignor.)						
Leach, John, Jersey City, N. J. Hoisting apparatus	462,145	Oct. 27	2591	645	57	518
Leach, Rufus, Clark's Island, assignor of five-eighths to E. A. Buck and A. C. Batchelder, Bangor, Me. Rotary pump	445,318	Jan. 27	2140	553	54	443
Leach, Thomas. (See King, Leach, and Larson.)						
Leadbeater, Frederick. (See Shier, John, assignor.)						
Leak, Hector, Winsford, England. Street-lamp	465,481	Dec. 22	2352	603	57	1612
Leake, Frank, Philadelphia, Pa. Terry-loom	454,367	June 16	1775	462	55	1502
Leakin, James H., Baltimore, Md. Clamp for electric-battery zines	448,847	Mar. 24	2575	646	54	1634
Lean, George R., Boston, Mass. Means for transmitting power to driving-axles	459,785	Sept. 22	1966	496	56	1467
Lean, George R., Boston, Mass. Electro-magnetic device	459,786	Sept. 22	1968	496	56	1468
Lean, George R., Boston, Mass., assignor to Bernstein Electric Company, Portland, Me. Incandescent-lamp socket	444,567	Jan. 13	930	242	54	192
Lean, George R., Boston, Mass., assignor to Bernstein Electric Company, Portland, Me. Electric switch	445,957	Feb. 3	718	175	54	653
Lean, George R., Boston, Mass., assignor to Bernstein Electric Company, Portland, Me. Electric switch	446,623	Feb. 17	1820	450	54	885
Lean, George R., Boston, Mass., assignor to Bernstein Electric Company, Portland, Me. Hanger-board for electric fixtures	449,266	Mar. 31	3217	812	54	1765
Lean, George R., Boston, Mass., assignor to Bernstein Electric Company, Portland, Me. Electric switch	461,761	Oct. 20	1981	490	57	393
Learnmonth, Robert, Buffalo, N. Y. Feed-water heater	459,585	Sept. 15	1643	411 412	56	1400
Leary, Michael, Utica, N. Y. Brake mechanism for cars	460,526	Oct. 6	68	19	57	15
Leary, Michael, assignor of one-half to J. F. Mann, Utica, N. Y. Track-clearer	454,484	June 23	1960	511	55	1546
Lease, H. Willard, et al. (See Bullinger, Joseph, assignor.)						
Leatheroid Manufacturing Company. (See Andrews, Emery, assignor.)						
Leathers, Nathan M. (See Mitchell, Nathan J., assignor.)						
Leavegood, William, Sacramento, Cal. Wagon-jack	463,355	Nov. 17	1812	473	57	917

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Leavis, Thomas, Wakefield, Mass. Skirt-form	445,375	Jan. 27	2219	575	54	459
Leavitt, Frank M., Brooklyn, N. Y. Tilting-frame power-press	451,223	Apr. 28	2459	608	55	500
Leavitt, Frank M., Brooklyn, N. Y. Drawing or stamping press	451,224	Apr. 28	2461	608 609	55	500
Leavitt, Frank M., Brooklyn, N. Y. Cake-press	456,656	July 28	2167	574 575	56	439
Leavitt, Frank M., Brooklyn, N. Y., assignor to E. and O. W. Norton, Chicago, Ill. Can- body-forming and side-seam-soldering machine	444,000	Jan. 6	22	6, 7 8, 9	54	8
Leavitt, Harry W., Hammond, Ill. Dehorning implement	458,853	Sept. 1	473	114	56	1156
Leavitt, Thomas, Everett, Mass., assignor to American Postal Machines Company, Port- land, Me. Post marking and canceling machine	464,329	Dec. 1	511	122 123	57	1231
Leaycraft, Edwin D., Jersey City, N. J. Pneumatic carrier	451,619	May 5	266	64	55	630
Lebel, Treffie, Lewiston, Me. Dress-form	456,151	July 21	1341	355	56	274
Leblanc, Alfredo, Havana, Cuba. Extracting cane-juice and apparatus therefor	459,496	Sept. 15	1498	375 376	56	1372
Lebrun, Edmund. (See Lee and Lebrun.)						
Lecellier, Leon R., Villedien, France. Latch	448,298	Mar. 17	1698	429 430	54	1460
Lechner, Francis M., Columbus, Ohio. Motor-truck	451,942	May 12	771	195	55	732
Lechtenberg, Henry, Quincy, Ill. Automatic stop device for hoisting mechanism	457,730	Aug. 11	1312	340	56	789
Leck, Henry, assignor of one-half to S. Bretzfeld, New York, N. Y. Belt	446,186	Feb. 10	1118	273	54	733
Leckie, Andrew, West Hartlepool, England. Steam-engine	453,866	June 9	1056	276 277	55	1357
Leddell, Charles S., Morristown, N. J. Velocipede	459,586	Sept. 15	1645	412 413	56	1400
Ledel, Hans B., Minnesota, Minn. Car-coupling	465,377	Dec. 15	2196	562	57	1570
Lederer, Leonhard, Waldhof, near Mannheim, Germany. Producing colored designs, &c., on mirrors	462,441	Nov. 3	356	.....	57	618
Ledet, Aline R. (See Schmidt and Ledet.)						
Ledig, Reinhold G. (See Beilmann, Friedrich, assignor.)						
Lednum, William D. (See Martyn and Lednum.)						
Ledwith, Andrew B. (See Kaiser and Ledwith.)						
Lee, Almon B., Bangor, Mich. Adjustable soldering-clamp	459,637	Sept. 15	1747	439	56	1418
Lee, Benjamin. (See Kirk and Lee.)						
Lee, Charles C., Paducah, Ky. Mosquito-net frame	451,331	Apr. 28	2636	651	55	535
Lee, Charles F. (See Nettleton and Lee.)						
Lee Company, J. Ellwood. (See Lee, John E., assignor.)						
Lee, David T., Maidenhead, England. Boot or shoe stretcher	448,352	Mar. 17	1789	452	54	1477
Lee, Elizabeth, Little Falls, N. Y. Combined waist and skirt	444,001	Jan. 6	29	9	54	9
Lee, Frank S. (See Horton and Lee.)						
Lee, George S., Denver, Colo. Roofing	453,979	June 9	1207	315	55	1387
Lee, Homer, New York, N. Y. Plate-printing machine	458,694	Sept. 1	229	54	56	1109
Lee, Homer, New York, N. Y., assignor to Electric Typographic Company, of West Vir- ginia. Matrix-making or type-setting machine	447,135	Feb. 24	2678	664 665 666 667 668 669	54	1058
Lee, Homer, and E. Lebrun, New York, N. Y., assignors to Electric Typographic Com- pany, of West Virginia. Matrix-making or type-setting machine	447,134	Feb. 24	2658	662 661 663	54	1055
Leo, James. (See Dutton and Lee.)						
Lee, James D., assignor to Lee Smoke Burner and Fuel Saving Furnace Company, Chicago, Ill. Smoke-consuming furnace	464,506	Dec. 8	769	189	57	1291
Lee, John. (See Decarie and Lord, assignors.)						
Lee, John E., assignor to J. E. Lee Company, Conshohocken, Pa. Speculum	449,941	Apr. 7	442	110	55	87
Lee, John E., assignor to himself, B. W. Mapes, Norwalk, Conn., and C. L. Heins, New York, N. Y. Soap holder and rubber	445,701	Feb. 3	308	81	54	573
Lee, Joseph, Brooklyn, N. Y. Elevator	464,664	Dec. 8	1012	253	57	1338
Lee, Mart A., Windsor, assignor of one-half to J. R. Bravo, Binghamton, N. Y. Nut and bolt lock	463,521	Nov. 17	2052	537	57	966
Lee, Patrick, assignor of one-half to M. Malcolm, Boise City, Idaho. Car-coupling	463,522	Nov. 17	2053	538	57	966
Lee, Preston B., Philadelphia, Pa. Glove	450,715	Apr. 21	1658	399 400	55	339
Lee, Richard, Brooklyn, N. Y. Stall-floor	454,745	June 23	2380	611	55	1624
Lee Smoke Burner and Fuel Saving Furnace Company. (See Lee, James D., assignor.)						
Lee, Thomas, Home City, Ohio. Dust-separator	458,773	Sept. 1	337	82	56	1130
Lee, Thomas A., Kansas City, Mo. Artificial fire-proof joist for floors or roofs	461,028	Oct. 13	751	194	57	153
Lee, Thomas A., Kansas City, Mo. Fire-proof floor or roof	461,029	Oct. 13	753	194	57	153
Lee, Thomas A., Kansas City, Mo. Fire-proof floor	461,030	Oct. 13	758	194	57	154
Lee, Thomas B., Toronto, Canada. Fare-register	445,669	Feb. 3	244	66	54	560
Lee, William, assignor of one-half to O. Hoblitzell, Baltimore, Md. Pipe-clamp	452,307	May 12	1383	344	55	843
Lee, William, assignor of one-half to O. Hoblitzell, Baltimore, Md. Cellar-drainer	452,308	May 12	1384	344	55	843
Lee, William A., Peoria, Ill. Switch	455,838	July 14	1884	232	56	178
Lee, William O., Detroit, Mich. Wrench	450,516	Apr. 14	1320	324	55	260
Lee, William W., Northampton, Mass. Table-knife	458,632	Sept. 1	130	29	56	1091
Leeb, Alfred. (See Leeb, Leo., assignor.)						
Leeb, Leo., Alingsas, Sweden, assignor to A. Leeb, New York, N. Y. Air spinning-top	466,172	Dec. 29	3480	889	57	1838
Leech, John F. (See O'Hare, Hugh, assignor.)						
Leech, John J., New York, N. Y. Compartment-box	459,587	Sept. 15	1653	413	56	1401
Leech, Stephen H. (See Doulton and Leech.)						
Leech, Stephen H., and H. L. Doulton, Lambeth, England. Manufacture of terra-cotta blocks	451,854	May 5	616	152	55	696
Leech, William A., Lamar, Mo. Feed-trough	462,146	Oct. 27	2592	645	57	518
Leechman, George D., London, England. Velocipede	447,835	Mar. 10	921	231	54	1299
Leechman, William C., Colombo, Ceylon. Oil or similar press	461,129	Oct. 13	886	230	57	178
Leeman, Horace E., assignor of one-half to H. A. Morton, Lynn, Mass. Carpet-fastener	447,959	Mar. 10	1132	284	54	1339
Leeman, Horace E., assignor of one-half to H. A. Morton, Lynn, Mass. Carpet-fastener	447,960	Mar. 10	1134	285	54	1339
Leeman, Horace E., assignor of one-half to J. H. Cochey and J. D. Dennis, Lynn, Mass. Whip-socket	462,493	Nov. 3	426	104	57	632
Leeming, John, Bradford, England. Loom	457,731	Aug. 11	1314	340 341	56	789
Lees, Charles A., Christchurch, and S. W. Lester, Sydenham, assignors to Canterbury (N. Z.) Seed Company, Limited, Christchurch, New Zealand. Seed-sheller	444,838	Jan. 20	1351	350	54	281

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Lees, Henry C., Camden, N. J. Cord and tassel	464,791	Dec. 8	1219	303	57	1376
Lees Manufacturing Company. (See Stedman, George A. and D. R., assignors.)						
Leete, John W., Hartford, Conn. Thill-coupling	465,628	Dec. 22	2605	662	57	1658
Lefebvre, Edouard, Montreal, Canada. Independent electric clock	445,023	Jan. 20	1680	432	54	344
Leffel & Company, James. (See Dalie, John G., assignor.)						
Leffler, Paul W., Minneapolis, Minn. Converting device for steam-engines	449,162	Mar. 31	3052	{ 771 772	54	1734
Legg, Cornelius E., O. G. Alexander, and G. W. Legg, Dunkerton, Iowa. Latch	445,562	Feb. 3	66	16	54	525
Legg, George W. (See Legg, Alexander, and Legg.)						
Legrand, Louis, Brussels, Belgium. Embroidering-machine	466,248	Dec. 29	3592	{ 918 919 920	57	1859
Lehman, Joseph H., Philadelphia, Pa. Rheostatic switch	444,707	Jan. 13	1129	291	54	231
Lehman, William, Sebewa, Mich. Wrench	465,063	Dec. 15	1666	424	57	1471
Lehmann, Bernhard, Offenbach-on-the-Main, Germany. Fastening for pocket-books	452,039	May 12	934	240	55	763
Lehmann, Charles. (See Brunhoff and Lehmann.)						
Lehmann, Charles, and E. Brunhoff, Chicago, Ill. Self-heating soldering-iron	448,055	Mar. 10	1286	329	54	1369
Lehmann, Charles, and E. Brunhoff, Chicago, Ill. File-rack	460,252	Sept. 29	2679	667	56	1611
Lehmann, Frederick A., Washington, D. C. Electrically-operated brush	459,222	Sept. 8	1062	258	56	1278
Lehmann, Richard, Berlin, Germany. Ornamenting nap or pile fabrics	462,979	Nov. 10	1210	{ 315 316	57	794
Lehnkering, August L. (See Ellis and Lehnkering.)						
Leibmann, Frank J., New York, N. Y. Car-axle lubricator	461,265	Oct. 13	1117	285	57	223
Leiding, Charles, Duluth, Minn. Fish-net sinker	460,142	Sept. 29	2524	628	56	1581
Leighton, James H., assignor of one-half to M. H. Miller, Akron, Ohio. Manufacture of solid glass spheres	462,083	Oct. 27	2481	616	57	498
Leighton, William E., West Pembroke, Me. Reed-organ	461,096	Oct. 13	846	219	57	170
Leiman, George W., New York, N. Y. Pasting-machine	459,295	Sept. 8	1173	285	56	1301
Leiman, Henry, New York, N. Y. Cigar-box-trimming machine	460,877	Oct. 6	521	{ 133 134	57	103
Leineweber, Herman, South Chicago, assignor of one-half to F. Auerbach, Chicago, Ill. Meat-chopping apparatus	455,022	June 30	2889	734	55	1726
Leisenring, Henry G., Wayne, Nebr. Syringe	445,813	Feb. 3	508	122	54	611
Leisenring, Henry G., Wayne, Nebr. Rectal speculum	457,787	Aug. 18	1405	364	56	814
Leiser, Isidor, et al. (See Keeney, Charles H., assignor.)						
Leiser, Jacob J. (See Fisher, Thomas W., assignor.)						
Leistner, Paul G., St. Louis, Mo. Tidy-holder	448,967	Mar. 24	2754	695	54	1668
Leiter, Ira J., Ionia, Mich. Lubricator for slide-valves	463,904	Nov. 24	2663	698	57	1093
Leith, Alexander B., and B. Hampton, Chicago, Ill. Steam-trap	450,415	Apr. 14	1175	287	55	231
Leith, Joseph H., Sand Patch, Pa. Device for dressing and jointing saws	444,446	Jan. 13	724	190	54	152
Lejeune, Camille A. (See Malhot and Lejeune.)						
Leland, Faulconer & Norton Company. (See Norton, Charles H., assignor.)						
Leland, Henry C., Waterbury, Conn. Type-distributor	465,482	Dec. 22	2354	{ 603 604	57	1612
Lemley, G. O., et al. (See Waterman, John, assignor.)						
Lemur, Frederick J., Chicago, Ill. Map and shade protector	455,473	July 7	274	70	56	55
Lemmon, William W., Arbroth, La. Excavator	464,507	Dec. 8	771	{ 189 190	57	1291
Lemon, Israel G., Waverly, N. Y. Car-brake	452,885	May 26	2326	{ 586 587	55	1040
Lemon, John T., Columbus, Ohio. Steam-engine	463,758	Nov. 24	2457	{ 642 643	57	1050
Lemon, Thomas J., New York, N. Y. Ice-machine	453,084	May 26	2656	670	55	1104
Lemp, Hermann, Lynn, Mass., assignor to Thomson Electric Welding Company, of Maine. Electric welding	458,176	Aug. 25	2029	526	56	940
Lemp, Hermann, Lynn, Mass., assignor to Thomson Electric Welding Company, of Maine. Adjustable electric clamp	458,177	Aug. 25	2031	{ 526 527	56	940
Lemp, Hermann, Lynn, Mass., assignor to Thomson Electric Welding Company, of Maine. Laminated die, hammer, &c. for electric metal-working apparatus	462,262	Nov. 3	64	16	57	564
Lemp, Hermann, Lynn, Mass., assignor to Thomson Electric Welding Company, of Maine. Method of and apparatus for constructing electric-light or other lines	462,263	Nov. 3	65	16	57	564
Lemp, Hermann, Lynn, Mass., assignor to Thomson Electric Welding Company, of Maine. Sliding clamp for electric welding apparatus	465,266	Dec. 29	2961	{ 756 757	57	1738
Lemp, Hermann, Hartford, Conn., assignor to Schuyler Electric Company, of Connecticut. Cut-out	463,213	Nov. 17	1579	411	57	874
Lemp, Hermann, and L. M. Schmidt, Lynn, Mass., assignors to Thomson Electric Welding Company, of Maine. Alternating-current dynamo	444,939	Jan. 20	1559	400	54	320
Lemp, Hermann, and L. M. Schmidt, Lynn, Mass., assignors to Thomson Electric Welding Company, of Maine. Method of and apparatus for electric welding	446,974	Feb. 24	2398	597	54	1005
Lemp, Hermann, and M. J. Wightman, Hartford, Conn., assignors to Schuyler Electric Company, of Connecticut. Electric-arc lamp	454,485	June 23	1961	{ 511 512	55	1546
Lemp, Hermann, and C. G. Anderson, Lynn, Mass.; said Lemp assignor to Thomson Electric Welding Company, of Maine. Automatic electric-welding machine	462,261	Nov. 3	60	15, 16	57	563
Lenahan, Francis P., Wilkes-Barre, assignor of one-third to P. A. Oliver, Oliver's Mills, Pa. Electric signal for railway-trains	454,625	June 23	2203	{ 567 568	55	1589
Lencanhez, Alexandre, et al. (See Seguin, Augustin, assignor.)						
Leנגgenhager, Frederick. (See Ball, Harry, assignor.)						
Lenhart, Joseph R., Jonesborough, Ind. Adjustable book and paper holder	453,931	June 9	1145	299	55	1374
Lenhart, Philip F., assignor of seven-eighths to A. Stover, Brooklyn, N. Y. Commutator-pattern	445,319	Jan. 27	2142	554	54	443
Lenman, John T., Washington, D. C. Letter-box	444,638	Jan. 13	1024	267	54	211
Lenman, John T., Washington, D. C. Street letter-box	459,550	Sept. 15	1588	398	56	1389
Lennard, Frederic, East Greenwich, England. Apparatus for the distillation of tar	459,123	Sept. 8	913	{ 219 220	56	1250
Lennon, Joseph. (See Murphy and Lennon.)						
Lennox, James T. (See Tregoning, John, assignor.)						
Lennox, James T., et al. (See Hayes, Edward, assignor.)						
Lennox, John J., et al. (See Hayes, Edward, assignor.)						
Lennox, Talbot, Marshalltown, Iowa. Automatic grain-binder	445,586	Feb. 3	108	26, 27	54	532
Lenoir, John T., Columbia, assignor of one-half to B. A. Snimmer, Buford, Miss. Wash-board	451,432	Apr. 28	2785	688	55	563
Lent, Charles H. (See Herrick, William I., assignor.)						
Lentz, John E. (See Lentz, Silas A., assignor.)						
Lentz, Silas A., assignor to J. E. Lentz, Allentown, Pa. Sole	463,971	Nov. 24	2794	724	57	1114
Leonzner, Oscar, Sr., Cass City, Mich. Stringed musical instrument	447,689	Mar. 3	661	164	54	1243

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Leonard, Arthur G., New York, N. Y. Interlocking switch	459,497	Sept. 15	1500	376	56	1373
Leonard, Arthur G., New York, N. Y. Car-coupling	461,839	Oct. 27	2115	521	57	427
Leonard, Augustus, Newell's Run, Ohio. Potato-digging attachment for plows	445,004	Jan. 20	1659	425	54	340
Leonard, Brunswick W., Saybrook, assignor of one-half to J. C. Nichols, New London, Conn. Electrical fire-alarm	454,746	June 23	2381	612	55	1624
Leonard, Charles H. (See Wright, George B., assignor.)						
Leonard, Charles H., Grand Rapids, Mich. Portable house	451,733	May 5	442	107	55	663
Leonard, Charles H., Grand Rapids, Mich. Refrigerator	454,747	June 23	2382	612	55	1625
Leonard, Charles N. (See Roberts, Allison, and Leonard.)						
Leonard, Chester S., Philadelphia, Pa. Polishing-machine	450,709	Apr. 21	1651	397	55	338
Leonard, Frank W., Grand Rapids, Mich. Coupon-ticket	463,701	Nov. 24	2377	622	57	1035
Leonard, George D., New Haven, Conn. Nose-bag	453,718	June 9	856	221	55	1317
Leonard, George D., New Haven, Conn. Nose-bag	453,719	June 9	857	221	55	1317
Leonard, George D., New Haven, Conn. Feed-bag for animals	454,054	June 16	1312	342	55	1414
Leonard, George E., Menominee, Mich., and S. A. Stowe, Neenah, Wis. Drum tubular sectional stove	456,960	Aug. 4	61	14	56	544
Leonard, George I. (See Westaway and Leonard.)						
Leonard, George I., et al. (See Westaway, Walter C., assignor.)						
Leonard, Harry W., New York, N. Y. Electrical transmission of power	463,802	Nov. 24	2514	657	57	1061
Leonard, John H. (See Howard and Leonard.)						
Leonard, Samuel W., et al. (See Richardson, Millard F., Sr., assignor.)						
Leonardi, Pietro, P. Zen, and G. Sardi, Venice, Italy. Insecticide	458,908	Sept. 1	565		56	1173
Leonhardt, George A., Richmond, Va. Invalid-bed	460,800	Oct. 6	417	103	57	82
Leonhardt & Co., A. (See Bender, Fritz, assignor.)						
Leonhardt, Martin W., assignor of one-half to G. J. Fritz, St. Louis, Mo. Machine for hulling oats or cotton-seed. (Reissue)	11,200	Nov. 3	729	189	57	691
Leontin, Johanna, Chicago, Ill. Garment-fastening	447,076	Feb. 24	2573	638	54	1038
Leopold, Charles F., assignor to W. J. Lloyd, Philadelphia, Pa. Saw-set	451,494	May 5	75	19	55	594
Leoty, Emile. (See Dixon and Leoty.)						
Lerch, Frederick W. (See Hunt, Marshall E., assignor.)						
Lerch, William M. (See Holtz, Henry T., assignor.)						
Leshner, W. W. (See Roth, George R., assignor.)						
Leslie, Andrew, assignor to A. M. Leslie Surgical Instrument Company, St. Louis, Mo. Atomizer	461,349	Oct. 13	1247	318	57	250
Leslie, Arthur M., Chicago, Ill. Shuttle for sewing-machines	444,756	Jan. 13	1219	317	54	247
Leslie, Arthur M., Chicago, Ill. Mechanical movement	444,757	Jan. 13	1221	317	54	247
Leslie, Arthur M., Chicago, Ill. Sewing-machine	444,759	Jan. 13	1224	{ 318 319 }	54	248
Leslie, Arthur M., Chicago, Ill. Shuttle	459,965	Sept. 22	2244	564	56	1521
Leslie, Arthur M., Evanston, Ill. Sewing-machine	444,758	Jan. 13	1223	{ 317 318 }	54	248
Leslie Brothers Manufacturing Company. (See Haughwout, John W., assignor.)						
Leslie, James W., Everett, Mass. Bracket or support for curtain-poles	445,628	Feb. 3	172	45	54	545
Leslie, M. G., et al. (See Stoop, William J., assignor.)						
Lesperance, Alexander. (See Worrall and Lesperance.)						
Lesperance, Alexander, assignor to T. H. Worrall, Laconia, N. H. Clutch	463,812	Nov. 24	2530	660	57	1064
Lessells, Allan H., New Brighton, England. Velocipede	455,220	June 30	3230	{ 820 821 }	55	1792
Lester, Charles, assignor to G. A. Harmount, Chicago, Ill. Electric alarm-clock	458,178	Aug. 25	2032	527	56	940
Lester, Charles, assignor to G. A. Harmount, Chicago, Ill. Electric programme-clock	464,730	Dec. 8	1124	{ 278 279 }	57	1358
Lester, James, assignor of one-half to N. R. Lester, Prosperity, S. C. Cotton-stalk crusher	465,139	Dec. 15	1809	458	57	1498
Lester, Lewis W., Glencoe, Minn. Steam-boiler	464,827	Dec. 8	1265	316	57	1385
Lester, N. R. (See Lester, James, assignor.)						
Lester, Stephen W. (See Lees and Lester.)						
Lestout, Edouard, Jr., Bordeaux, France. Fumigator	459,008	Sept. 8	719	176	56	1214
Letchworth, Ogden P., Buffalo, N. Y. Horse-collar fastener	453,786	June 9	964	250	55	1338
Leticzky, Sinai, Worcester, Mass. Power-shipping mechanism	447,334	Mar. 3	83	23	54	1134
Leitzing, Christian J., Boston, Mass. Toy	453,411	June 2	375	96	55	1217
Loutner, August, Vienna, Austria-Hungary. Calendar for photographic purposes	452,059	May 12	979	249	55	769
Leuzinger, John J., West New Brighton, N. Y. Clothes-line pulley	452,226	May 12	1263	319	55	821
Levake, Anson S. (See Lampert, Frederick E., assignor.)						
Levenson, Lewis, Natick, R. I. Weft-fork for looms	453,412	June 2	375	97	55	1218
Lever Bros. (See Scott, Ernest G., assignor.)						
Levering, Leonard M. (See Matthews, John T., assignor.)						
Levi, Isidor. (See Britton and Levi.)						
Levi, Mordcai, assignor of one-third to W. T. Levi, Charleston, W. Va. Steam-boiler	447,248	Feb. 24	2883	716	54	1098
Levi, William T. (See Levi, Mordcai, assignor.)						
Levi, William T., Charleston, W. Va. Glass-tube cutter	457,732	Aug. 11	1315	341	56	789
Levison, Philip, Chicago, Ill. Coupling for electric-light shades	456,997	Aug. 4	106	26	56	554
Leviston, Joseph J., Knox Point, La. Cotton-plow	457,650	Aug. 11	1175	301	56	761
Levy, Charles S., New York, N. Y. Chiropodist's file	454,956	June 30	2764	704	55	1701
Levy, Isaac M., assignor of three-fourths to H. Rendtorff, Chicago, Ill. Hand-rubber	458,468	Aug. 25	2515	612	56	1030
Levy, Jacob, Shreveport, La. Cross-tree for suspended electric wires	462,564	Nov. 3	547	133	57	655
Levy, Samuel H., Chicago, Ill. Drawer-stop	449,482	Mar. 31	3613	909	54	1837
Lewin, Jacob, assignor to himself, H. M. Fischer, and D. Salsberg, New York, N. Y. Combined desk and mirror	465,378	Dec. 15	2197	563	57	1570
Lewin, William J., Lockport, N. Y. Weather-strip for doors and windows	463,060	Nov. 10	1326	343	57	818
Lewis, Bannister B., Meridian, Miss. Cultivator	458,586	Sept. 1	59	13	56	1077
Lewis, Benjamin K. (See Wells and Lewis.)						
Lewis, Bennett S., New Haven, Conn. Friction-clutch	461,081	Oct. 13	828	213	57	166
Lewis, Charles, Jr. (See Davis and Lewis.)						
Lewis, Charles R., assignor to Middletown Plate Company, Middletown, Conn. Mechanism for shaping hollow metal articles	455,047	June 30	2934	747	55	1735
Lewis, Charles W., St. Louis, Mo. Trunk	464,828	Dec. 8	1266	317	57	1386
Lewis, Dio, and F. L. Generelly, Prescott, Ark. Fabric-turfing implement	444,545	Jan. 13	891	232	54	185
Lewis, Edward. (See Errington, William, assignor.)						
Lewis, Elliott L., Troy, N. Y. Barbed-wire fence	465,629	Dec. 22	2606	662	57	1658
Lewis, Elliott L., Troy, N. Y. Barbed-wire fence	465,630	Dec. 22	2607	662	57	1659
Lewis, Eugene F., and F. T. Whaley, Norwich, Conn. Packing for piston-rods	444,002	Jan. 6	31	9	54	9
Lewis, Eugene H., St. Joseph, Mich. Artificial building-stone	448,968	Mar. 24	2755	695	54	1668

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Lewis & Fowler Girder-Rail Company. (See Johnson, William H., assignor.)						
Lewis & Fowler Girder-Rail Company. (See Viol, Reinhard, assignor.)						
Lewis & Fowler Girder-Rail Company. (See Wood, William C., assignor.)						
Lewis & Fowler Girder-Rail Company. (See Wood and Watson, assignors.)						
Lewis, George B. (See Brown, John P., assignor.)						
Lewis, George D., Port Allegheny, Pa. Car-coupling	464,572	Dec. 8	866	213	57	1309
Lewis, George E., Seneca Falls, N. Y. Trolley-wheel	439,588	Sept. 15	1654	414	56	1401
Lewis, George W. (See Wright, William H. H., assignor.)						
Lewis, George W., La Salle, assignor of one-half to C. Brunner, Peru, Ill. Gas or vapor engine	451,620	May 5	268	64	55	630
Lewis, George W., assignor of one-half to C. Brunner, Peru, Ill. Gas-engine	451,621	May 5	271	65	55	630
Lewis, Harry A. (See Strobel, Lewis, and Lamreau.)						
Lewis, Harry A., Norristown, Pa. Car-heating apparatus	465,713	Dec. 22	2725	695	57	1682
Lewis, Harvey M. (See Smith, Charles C., assignor.)						
Lewis, Henry J., Olathe, Kans. Tack setter and hammer	462,565	Nov. 3	548	133	57	656
Lewis, Isaac N., Fort Leavenworth, Kans. Range and position finder	447,335	Mar. 3	85	23 24 25	54	1134
Lewis, James, McKeesport, Pa. Vehicle-axle	461,266	Oct. 13	1118	286	57	223
Lewis, James H., assignor of one-half to C. G. Hampton, Detroit, Mich. Road-cart	462,494	Nov. 3	427	104	57	632
Lewis, James P. (See White and Lewis.)						
Lewis, James T., Ivy Depot, Va. Nail-cutter	464,341	Dec. 1	526	128	57	1234
Lewis, John, Nashville, Tenn. Basket-grate	463,061	Nov. 10	1327	343	57	818
Lewis, John C., et al. (See Cash, Francis C., assignor.)						
Lewis, John F. (See Mattes and Lewis.)						
Lewis, John R., et al. (See Banks, George L., assignor.)						
Lewis, Joseph, Winsted, Conn. Tobacco-box	447,615	Mar. 3	558	138	54	1223
Lewis, Joseph C., et al. (See Hunt and Cash, assignors.)						
Lewis, Laban, Canadensis, assignor of one-half to E. Utt, Mountain Home, Pa. Mechanical scare-all or alarm	461,379	Oct. 13	1308	330	57	260
Lewis, Laban, and M. H. Hosie; said Lewis assignor to A. Hosie, Scranton, Pa. Railway-switch	452,712	May 19	2045	514	55	978
Lewis, Miles K., Hastings, Nebr. Corn-harvester	464,573	Dec. 8	807	213 214	57	1309
Lewis, Pearl C., Catskill, N. Y. Combined rocking and reclining chair	452,713	May 19	2046	514 515	55	979
Lewis, Philander H., Standard's Corners, N. Y. Car-coupling	446,358	Feb. 10	1405	344	54	791
Lewis, Pleasant F. (See Bangh, James A., assignor.)						
Lewis, Rollin C. W. (See Van Ness and Lewis.)						
Lewis, Russell H., assignor to A. Eddy, Providence, R. I. Separable button	447,249	Feb. 24	2885	716	54	1098
Lewis, Russel R., Peterborough, N. H. Cigar-rolling machine	459,756	Sept. 22	1924	485	56	1460
Lewis, Samuel, Topeka, Kans. Barrel-stand	462,410	Nov. 3	312	77	57	610
Lewis, Sylvester R., Garrison, Iowa. Car-brake	455,753	July 14	748	196 197	56	153
Lewis, Theodore H., Boston, Mass. Coal-conveyor	460,643	Oct. 6	177	45	57	37
Lewis, Thomas E., Dublin, Tex. Car-coupling	459,296	Sept. 8	1174	285	56	1301
Lewis, Thomas G. (See Gaddis and Lewis.)						
Lewis, Walter, Philadelphia, Pa., assignor of one-half to E. L. Raborg, Baltimore, Md. Brush-drawing machine	445,855	Feb. 3	567	138	54	622
Lewis, Wilfred, assignor to W. Sellers & Company, Incorporated, Philadelphia, Pa. Boring and turning mill	454,801	June 23	2465	633	55	1639
Lewis, Wilfred, assignor to William Sellers & Company, Incorporated, Philadelphia, Pa. Gag-block	458,990	Sept. 1	687	167 168	56	1200
Lewis, Willard I. (See Plimpton and Lewis.)						
Lewis, William B., Chicago, Ill. Stereotype casting-box	461,141	Oct. 13	903	234	57	181
Lewis, William E., Corry, Pa. Inkstand	451,874	June 30	2597	667	55	1670
Lewis, William H., Spencer, W. Va. Preparing leather for sharpening cutting-instruments	457,355	Aug. 11	727		56	674
Lewy, Charles H. (See Lewy, Luise, assignor.)						
Lewy, Charles H., assignor to C. H. Lewy and M. Jonasson, New York, N. Y. Spool-rack for sewing-machines	448,528	Mar. 17	2053	514	54	1527
Lewy, Luise, assignor to C. H. Lewy, New York, N. Y. Spool-rack for sewing-machines	464,623	Dec. 8	944	233	57	1325
Leyshon, George and W. T., Tipton, England. Method of and apparatus for coating metals	453,559	June 2	593	151	55	1260
Leyshon, William T. (See Leyshon, George and W. T.)						
Leyson, Bassett C. (See Leyson, Joseph and B. C.)						
Leyson, Joseph and B. C., Walkerville, Mont. Furnace for roasting ores	453,120	May 26	2711	683	55	1116
Libbey, Hosea W., Boston, Mass. Gas-generating attachment for lamps	453,307	June 2	198	54	55	1185
Libbey, Hosea W., Boston, Mass. Safety-gate for street-cars	453,371	June 2	294	77	55	1203
Libbey, Hosea W., Boston, Mass. Flexible electric conductor	459,385	Sept. 8	1322	331	56	1331
Libbey, Hosea W., Boston, Mass. House-door letter-box	459,386	Sept. 8	1323	331	56	1331
Libbey, Hosea W., Boston, Mass. Electric-arc lamp	460,587	Oct. 6	70	19	57	15
Libbey, Hosea W., Boston, Mass. Arc-lamp electrode	460,680	Oct. 6	237	59	57	48
Libbey, Hosea W., Boston, Mass. Fish-plate	461,387	Oct. 13	1324	334	57	264
Libbey, Hosea W., Boston, Mass. Water-proof blanket	463,280	Nov. 17	1684	440	57	895
Libbey, Hosea W., Boston, Mass. Sewer-pipe	463,281	Nov. 17	1685	440	57	895
Libbey, Hosea W., Boston, Mass. Sewer-pipe	465,936	Dec. 29	3081	790	57	1761
Libbey, Mark A., South Berwick, Me. Propelling mechanism for vehicles	447,616	Mar. 3	559	138 139	54	1223
Libbey, Mark A., South Berwick, Me. Cart	451,305	Apr. 28	2597	640 641	55	528
Libby, Charles L., assignor to E. P. Bullard, Bridgeport, Conn. Lathe-head	455,344	July 7	67	18, 19	56	17
Liberty, Jerry C., assignor of one-half to E. H. Sawyer, Easthampton, Mass. Jacquard mechanism for looms	465,411	Dec. 15	2243	576 577	57	1580
Lichtenstadt, Charles. (See Lichtenstadt, David and C.)						
Lichtenstadt, David and C., Chicago, Ill. Electric magnetic massago-kneador	444,597	Jan. 13	969	251	54	200
Lichtenstein, Benjamin. (See Moonelis, Adolph, assignor.)						
Lichtenstein, Rebecca. (See Goodnow, Julius S., assignor.)						
Lichtenstein, Solomon K., trustee. (See Lispenard, George, assignor.)						
Lichtinger, Israel, Copenhagen, Denmark. Cigar-tip former	463,633	Nov. 24	2265	596	57	1015
Licklider, Samuel E., Everett, assignor of one-half to C. J. Fudge, Bates County, Mo. Tongue for earth-scrappers	450,912	Apr. 21	1963	481	55	397
Liddell, John, assignor to Winchester Repeating Arms Company, New Haven, Conn. Machine for rolling paper tubes	452,141	May 12	1126	286	55	794
Liddell, Matthew D., New Haven, Conn. Machine for covering wire	463,389	Nov. 17	1876	489	57	930

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Liddell, William, Brooklyn, N. Y., assignor of one-half to D. S. Walton, East Orange, N. J. Paper-bag machine	455,407	July 7	175	46, 47	56	37
Liddle, John. (See Ansboro, Thomas, assignor.)						
Liddle, William R., Marengo, Iowa. Gate	465,097	Dec. 15	1730	439	57	1483
Lidgerwood Manufacturing Company. (See North, Charles M., assignor.)						
Lidster, Thomas C., Hull, England. Roundabout	448,056	Mar. 10	1288	329	54	1370
Lieb, Charles A. (See Hoffman, Joseph, assignor.)						
Lieb, Charles A., New York, N. Y. Elastic trolley	444,447	Jan. 13	725	190	54	152
Lieb, Charles A., New York, N. Y. Binding-post	446,871	Feb. 24	2223	552	54	975
Lieb, Charles A., New York, N. Y. Support for electric wires	448,246	Mar. 17	1586	405	54	1438
Lieb, Charles A., New York, N. Y. Elastic metallic pole for electric wires	449,125	Mar. 31	3000	758	54	1725
Lieb, Charles A., New York, N. Y. Non-sparking clamp for trolley-wires	450,163	Apr. 14	760	193	55	154
Lieb, Charles A., New York, N. Y. Electric-railway-wire support	450,164	Apr. 14	761	193	55	155
Lieb, Charles A., New York, N. Y. Trolley-wire support	450,242	Apr. 14	902	224	55	179
Lieb, Charles A., New York, N. Y. Embossing and printing press	452,016	May 12	885	227	55	751
Lieb, Charles A., New York, N. Y. Electric-wire suspender	452,017	May 12	888	228	55	754
Lieb, Charles A., New York, N. Y. Pole for electric wires	453,286	June 2	163	46	55	1179
Lieb, Charles A., New York, N. Y. Overhead electric system	454,486	June 23	1964	512	55	1547
Lieb, Charles A., New York, N. Y. Car-house hanger	454,487	June 23	1966	512	55	1547
Lieb, Charles A., New York, N. Y. Commutator for dynamos or motors	454,488	June 23	1968	513	55	1548
Lieb, Charles A., New York, N. Y. Trolley-pole for electric railways	457,356	Aug. 11	728	186	56	674
Lieb, Charles A., New York, N. Y. Trolley for electric cars	461,840	Oct. 27	2116	521	57	472
Lieb, Charles A., New York, N. Y. Clamp for trolley-wires	462,359	Nov. 3	229	56	57	594
Lieb, Charles A., assignor to Sprague Electric Railway and Motor Company, New York, N. Y. Hanger for overhead wires	461,582	Oct. 20	1693	414	57	339
Lieb, Charles A., New York, and E. Lavens, Brooklyn, N. Y.; said Lavens assignor to said Lieb. Insulator	450,294	Apr. 14	971	241	55	193
Lieb, Charles A., New York, and E. Lavens, Brooklyn, N. Y.; said Lavens assignor to said Lieb. Electric-wire supporter	450,587	Apr. 14	1411	348	55	278
Lieb, Thomas, New York, N. Y. Hydraulic air-pump	447,961	Mar. 10	1134	285	54	1339
Liebenroth, Von Auw & Co. (See Von Auw, Alwin, assignor.)						
Liebermann, Carl T., Berlin, and F. Giesel, Brunswick, Germany. Obtaining ecgonine	450,887	Apr. 21	1930		55	390
Lieberthal, Elias H., Bay City, Mich. Suspenders	464,882	Dec. 8	1342	337	57	1401
Liebl, Andrew, Breslau, N. Y. Tailor's measure	457,124	Aug. 4	290	76	56	589
Lieker, Frederick, New York, N. Y. Pocket-book	449,799	Apr. 7	244	61	55	49
Lieker, Frederick, New York, N. Y. Pocket-book	458,235	Aug. 25	2130	552	56	959
Liesenbein, William, New York, N. Y. Back and arm rest for furniture	457,125	Aug. 4	292	76	56	589
Liesenberg, Carl, Halle-on-the-Saale, Germany, assignor of one-half to E. L. C. Schulz, New York, N. Y. Clarifying liquids	450,243	Apr. 14	903		55	180
Lietze, Ernst, Cincinnati, Ohio. Printing-machine	444,412	Jan. 6	675	175	54	133
Light, Harry J., Sedan, Kans. Wind musical instrument	454,748	June 23	2384	612	55	1625
Light, Israel. (See Payne, John R., assignor.)						
Lightfoot, Colin, Brooklyn, N. Y. Atomizer for water-closets	448,784	Mar. 24	2480	620	54	1616
Lightfoot, B. H. (See Willbur, Alfred, assignor.)						
Lightfoot, Walter H., Wentworth, Tex. Bed bottom and brace	465,182	Dec. 15	1876	475	57	1510
Lighthall, John A., Jr. (See Harwood, John E., assignor.)						
Lighthouse, Charles F., Rochester, N. Y. Mail-bag	459,869	Sept. 22	2103	529	56	1495
Lightner, Joel, et al. (See Smith, Clayton P., assignor.)						
Lightner, Zachariah F., Carpenter, Del. Puzzle	446,872	Feb. 24	2224	552	54	975
Lightning Check Punch Company. (See Smith and Williamson, assignors.)						
Lighty, William H., Monticello, Ind. Needle-threader	462,147	Oct. 27	2593	646	57	518
Ligon, George B. (See Mendenhall, John W., assignor.)						
Ligowsky, George, assignor, by mesne assignments, to Peters Cartridge Company, Cincinnati, Ohio. Cartridge-loading machine	464,883	Dec. 8	1343	337	57	1401
Lilly & Company, Eli. (See Eberhardt, Ernest G., assignor.)						
Limbaugh, Francis M., assignor of one-half to A. T. Covell, Woodbridge, Cal. Collar-pad	444,003	Jan. 6	32	10	54	10
Limering, Sadie, et al. (See Farlow, John S., assignor.)						
Liming, William B., Philadelphia, Pa. Shutter-fastener	464,884	Dec. 8	1347	338	57	1402
Lincoln, Charles L., Stamford, Conn. Lock	461,350	Oct. 13	1248	318	57	250
Lincoln, George W., Honolulu, Hawaii. Window-screen	465,595	Dec. 22	2553	651	57	1649
Lincoln, John C., Rochester, N. Y. Electric brake	458,587	Sept. 1	60	14	56	1077
Lincoln, Marshall, Boston, Mass. Carpet-stiffener	456,002	July 14	1126	295	56	292
Lincoln, Thomas, Brooklyn, N. Y. Lock	450,745	Apr. 21	1697	410	55	347
Lincoln, William H., Philadelphia, Pa. Wash-stand	458,909	Sept. 1	565	137	56	1172
Lind, Emile, Kansas City, Mo. Cornstalk-cutter	453,131	May 26	2712	683	55	1116
Lind, James G., Providence, R. I. Combined wrench and gas-pipe tongs	459,377	Sept. 8	1311	326	56	1329
Lind, Jonas A., and P. E. Anderson, assignors of one-half to P. M. Wickstrum, Clay Centre, Kans. End-gate	452,905	May 26	2357	596	55	1046
Lindemann, Ernst C., assignor to Lindemann Terra-Cotta Roofing Tile Company, Baltimore, Md. Roofing-tile. (Reissue)	11,186	Aug. 25	2656	646	56	1058
Lindemann, Gustave. (See Bailey and Lindemann.)						
Lindemann, Hermann, Klingenthal, Germany. Stringing guitars, &c	458,789	Sept. 1	361	88	56	1135
Lindemann Terra-Cotta Roofing Tile Company. (See Lindemann, Ernst C., assignor.) (Reissue.)						
Lindemeyer, Philip, Baltimore, Md. Knockdown or folding paper box	460,293	Sept. 29	2752	686	56	1636
Linden, Henry, assignor of one-half to T. Wall, Springfield, Ohio. Piano-truck	459,365	Sept. 8	1280	316	56	1322
Lindenmann, William, New Brunswick, N. J. Device for tapping barrels	454,749	June 23	2385	612	55	1625
Lindenthal, Gustav. (See Feilbogen, Morris, assignor.)						
Lindenthal, Gustav, Pittsburg, Pa. Making steel	465,672	Dec. 22	2671	681	57	1671
Linder, Charles W., Kansas City, Mo. Awning	459,078	Sept. 8	831	202	56	1233
Lindfors, Erick M., Cleveland, Ohio. Rod-cutter	464,976	Dec. 15	1499	376	57	1441
Lindgren, August, assignor to Moline Plow Company, Moline, Ill. Tongueless wheel-cultivator	455,754	July 14	749	197	56	153
Lindgren, August, assignor to Moline Plow Company, Moline, Ill. Cultivator	455,755	July 14	750	197	56	153
Lindgren, August, assignor to Moline Plow Company, Moline, Ill. Subsoiling device for lister-plows	461,537	Oct. 20	1629	398	57	326
Lindgren, August, Moline, Ill., and S. W. Luitwieler, Los Angeles, Cal., assignors to Moline Plow Company, Moline, Ill. Wheel-cultivator	460,021	Sept. 22	2323	582	56	1536
Lindley, Herbert, Salford, England. Apparatus for controlling the circulation of liquid through cylinder-jackets of gas or other motors	450,771	Apr. 21	1736	421	55	354

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Lindley, Herbert, Salford, England. Petroleum-burner.....	463,905	Nov. 24	2684	699	57	1093
Lindner, Ernst, assignor to Lindner & Remig, New York, N. Y. Turning-lathe.....	452,495	May 19	1707	430	55	912
Lindner, Ernst, assignor to Lindner & Remig, New York, N. Y. Chuck for turning-lathes.....	452,496	May 19	1712	430	55	912
Lindner, Otto, Brussels, Belgium. Hydrocarbon-engine.....	453,446	June 2	431	111	55	1230
Lindner & Remig. (See Lindner, Ernst, assignor.)						
Lindner, William, Chicago, Ill. Velocipede-seat.....	464,508	Dec. 8	773	190	57	1292
Lindquist, John W., Galesburg, Ill. Tongue-support.....	445,024	Jan. 20	1681	432	54	344
Lindroth, Carl O. (See Good and Lindroth.)						
Liudsay, Benjamin. (See Ryan, Arthur, assignor.)						
Lin'say, James G. (See Bonnaffon, Albert L., assignor.)						
Lindsay, James W., Fresno, Cal. Horse-tail holder and rein-guard.....	451,608	May 5	245	58	55	626
Lindsay, John A., et al. (See Scott, James T., assignor.)						
Lindsay, John P., West Derby, Vt. House-door letter-box.....	461,117	Oct. 13	872	224	57	175
Lindsay, John P., West Derby, Vt. Street letter-box.....	465,867	Dec. 29	2965	757	57	1739
Lindsay, William G., Antigo, Wis. Ironing-table.....	459,009	Sept. 8	719	176	56	1214
Lindsay, William G., Antigo, Wis. Ironing-table.....	459,124	Sept. 8	916	220	56	1251
Lindsay, William G., assignor to G. Bacon, Antigo, Wis. Ironing-table.....	457,742	Aug. 11	1332	346	56	794
Lindsey, Charles M., assignor to Pittsburgh Crushed Steel Company, Limited, Pittsburg, Pa. Cutting, grinding, and polishing material.....	466,277	Dec. 29	3641	.....	57	1868
Lindsey, James T., Nevada, Mo. Chair attachment.....	453,649	June 9	744	192	55	1296
Lindsey, John S. (See Allen and Lindsey.)						
Lindsey, William E., Larissa, Tex. Derrick.....	450,695	Apr. 21	1633	392	55	335
Lindsey, Isaac, deceased; C. A. Warland, Pawtucket, R. I., administrator. Automatic feeding attachment for looms for weaving with short wefts.....	456,973	Aug. 4	78	19	56	548
Lindstrom, John, and E. F. Bergman, Frankfort, N. Y. Lathe attachment for turning-machines.....	464,757	Dec. 8	1164	290	57	1365
Linebarger, Oliver, Council Bluffs, Iowa. Churn.....	454,750	June 23	2386	613	55	1626
Linegar, Charles. (See Simmonds and Linegar.)						
Linehan, Malachi J. (See Brost, Charles A., assignor.)						
Lines, John, assignor to Scovill Manufacturing Company, Waterbury, Conn. Shade-holder.....	452,167	May 12	1177	297	55	804
Linham Dado Machine Company. (See Linham, Robert E., assignor.)						
Linhau, Hermie, executrix. (See Linham, Robert E.)						
Linham, Robert E., deceased; H. Linham, executrix, and assignor, by mesne assignments, to Linham Dado Machine Company, Mansfield, Ohio. Molding-cutter.....	452,309	May 12	1385	344	55	844
Linham, Robert E., deceased; H. Linham, executrix, and assignor, by mesne assignments, to Linham Dado Machine Company, Mansfield, Ohio. Molding-cutter.....	452,310	May 12	1386	345	55	844
Linham, Robert E., deceased; H. Linham, executor, and assignor, by mesne assignments, to Linham Dado Machine Company, Mansfield, Ohio. Molding-cutter.....	452,311	May 12	1387	345	55	844
Link Belt Engineering Company. (See Wright, Louis S., assignor.)						
Link, Elijah M., Erie, Pa. Steam-heating radiator.....	464,159	Dec. 1	229	55	57	1179
Link, Louis W. (See Schuster and Link.)						
Link, Oliver, St. Charles, Mo. Roof.....	448,529	Mar. 17	2054	514	54	1527
Linn, George E. (See Slager and Linn.)						
Linnehan, Patrick H. (See Fitzsimmons, Philip, assignor.)						
Lintz, Frank, Mount Vernon, Ind. Deodorizing compound.....	450,370	Apr. 14	1107	.....	55	218
Linnville, Samuel R., Philadelphia, Pa., assignor to Keystone Battery and Electric Supply Company, Camden, N. J. Printing-telegraph.....	450,631	Apr. 21	1523	369	55	312
Linnville, Samuel R., and L. F. Hettmansperger, Philadelphia, Pa., assignors to Keystone Battery and Electric Supply Company, Camden, N. J. Printing-telegraph.....	450,630	Apr. 21	1494	367 368 369	55	301
Linzeo, John W., Jr. (See Nichols, Henry B., assignor.)						
Lioet, Henri, assignor to Ossheimer Brothers, Paris, France. Advertising apparatus.....	446,457	Feb. 17	1579	388	54	839
Lipe, Charles E., Syracuse, N. Y. Electro-magnet.....	452,003	May 12	868	221	55	750
Lipe, Charles E., assignor to Marvin Electric Drill Company, Syracuse, N. Y. Reciprocating tool.....	460,089	Sept. 22	2435	609	56	1557
Lipe, Milton W., San José, Cal. Flour-packer.....	458,327	Aug. 25	2293	560	56	989
Lippe, Jacob. (See Jacobus, Jacob R., assignor.)						
Lippert, Peter, New York, N. Y. Handle for bowls.....	459,933	Sept. 22	2208	554	56	1514
Lippy, David, Mansfield, Ohio. Suspender-buckle.....	449,683	Apr. 7	53	13	55	12
Lippy, David, Mansfield, Ohio. Store-service apparatus.....	457,605	Aug. 11	1116	284	56	750
Lippy, David, Mansfield, assignor to D. L. Spotts, Canton, Ohio. Vehicle-spring.....	452,756	May 19	2125	534	55	993
Lippy, David, Mansfield, assignor of one-half to D. L. Spotts, Canton, Ohio. Vehicle-spring.....	457,737	Aug. 11	1327	344	56	792
Lippy, David, Mansfield, assignor of one-half to D. L. Spotts, Canton, Ohio. Flexible pipe connection.....	460,073	Sept. 22	2408	603	56	1551
Liquid Carbonic Acid Manufacturing Company. (See Convert, Charles F. A., assignor.)						
Liquid Supply Company. (See Snell, Luther C., assignor.)						
Lishawa, George W., Hartwell, Ohio. Time-table.....	465,379	Dec. 15	2198	563	57	1571
Lisle, Lemuel B., Springfield, Ohio. Chalk-carrier.....	455,569	July 7	438	116	56	84
Lisman, Anthony A. (See Beck, Samuel H., assignor.)						
Lispensard, George, assignor to Norwich Insulated Wire Company, Brooklyn, N. Y. Machine for covering wire.....	445,120	Jan. 20	1831	474 475	54	373
Lispensard, George, Brooklyn, assignor to S. K. Liechtenstein, trustee, New York, N. Y. Cotton-picker stem.....	457,743	Aug. 11	1333	346	56	794
Lispensard, George, Brooklyn, assignor to S. K. Liechtenstein, trustee, New York, N. Y. Cotton-picker stem.....	457,744	Aug. 11	1336	346 347	56	794
List, Joseph J. S., Rockdale, near Sydney, New South Wales. Pipe-coupling.....	465,868	Dec. 29	2967	758	57	1739
List, William A., Wheeling, W. Va. Package for roofing material.....	464,792	Dec. 8	1219	303	57	1376
Lister, Alfred, deceased, Newark, N. J.; J. C. Lister executrix. Privy-vault.....	447,572	Mar. 3	497	122	54	1210
Lister, Joanna C., executrix. (See Lister, Alfred.)						
Lister, Robert A., and M. Pedersen, Dursley, England. Pump.....	451,827	May 5	582	143 144	55	690
Litch, Wilbur F., Philadelphia, Pa. Holder for mucilage, ink, &c.....	465,183	Dec. 15	1877	476	57	1510
Litchfield, Walter J., et al. (See Waldron, Charles F., assignor.)						
Litchman, John B., Marblehead, Mass. Shoe-maker's jack.....	453,401	June 2	342	88, 89	55	1212
Litigow, Herbert S., assignor of one-half to H. H. Roedel, Lebanon, Pa. Sole-protector.....	461,103	Oct. 13	856	220	57	172
Litho-Carbon Company. (See Salathé, Frederick, assignor.)						
Littell, George, Service, Pa. Fence-making device.....	459,883	Sept. 22	2130	535	56	1500
Little, Charles H., et al. (See Johns, Will R., assignor.)						
Little Giant Power Converter Company. (See Allen, William P., assignor.)						
Little, James R., assignor to Quincy Metal Wheel Company, Quincy, Ill. Truing up metal wheels.....	458,057	Aug. 18	1849	482	56	898
Little, Jeremiah H., Yellow Springs, Ohio. Means for manufacturing hominy-flakes or corn-flakes.....	446,759	Feb. 17	2036	507	54	928

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Little, John, Xenia, Ohio. Elevator.....	457,479	Aug. 11	926	236	56	711
Little, Joseph A., Lawrence, Mass. Saddle for bicycles.....	452,797	May 26	2187	548	55	1014
Little, Joseph A., assignor of one-half to E. A. Dodge, Lawrence, Mass. Velocipede-saddle.....	446,387	Feb. 10	1450	356	54	801
Little, Nelson B., Chicago, Ill. Clothes-pounder.....	452,525	May 19	1760	442	55	922
Little, Nelson B., Chicago, Ill. Wash-board.....	457,126	Aug. 4	293	77	56	589
Little, Orton C., Menasha, Wis. Split pulley.....	452,866	May 26	2288	575	55	1033
Little, Robert H., Chicago, Ill. Staple-fastening machine.....	449,779	Apr. 7	208	53, 54	55	43
Little, Robert H., Cyprus River, Canada, assignor to himself, and E. P. Donnell, Chicago, Ill. Railway.....	449,126	Mar. 31	3002	{ 758 } { 759 }	{ 54 }	1725
Little, William N., Annapolis, Md. Boiler-tube stopper.....	458,304	Aug. 25	2257	551	56	981
Littlefield, Augustine F., Lynn, Mass. Inner sole.....	462,442	Nov. 3	357	88	57	618
Littlefield, Charles A., Manchester, N. H., assignor to Dutcher Temple Company, Hopedale, Mass. Loom-temple.....	445,148	Jan. 20	1885	487	54	384
Littlefield, Charles A., Manchester, N. H., assignor to Dutcher Temple Company, Hopedale, Mass. Loom-temple.....	456,118	July 14	1285	338	56	254
Littlefield, Dennis G., Albany, N. Y. Oven bottom-plate for stoves or ranges.....	457,403	Aug. 11	800	206	56	689
Littlefield, Edgar, West Troy, N. Y. Switch for ice-runway chutes.....	459,478	Sept. 15	1470	376	56	1367
Littlefield, Frank A., East Pepperell, Mass. Steam-trap.....	460,143	Sept. 29	2525	628	56	1581
Littlefield, John W., Boston, Mass. Wire-cloth.....	450,165	Apr. 14	764	193	55	155
Littlejohn, Charles F., Bridgeport, Conn. Propeller.....	457,513	Aug. 11	974	{ 248 } { 249 }	{ 56 }	721
Littlejohn, Joseph E. (See Thomas and Littlejohn.)						
Littleton, Covington H., Philadelphia, Pa. Fastening for corsets.....	462,054	Oct. 27	2447	606	57	491
Littleton, Stephen M. (See Ryder, Joshua H., assignor.)						
Live Poultry Transportation Company. (See Jenkins and Mudd, assignors.)						
Lively, James M., et al. (See Hoskin, John R., assignor.)						
Livengood, Winfield S. (See Stewart and Livengood.)						
Livengood, Winfield S., Kansas City, Mo. Lifting-jack.....	445,900	Feb. 3	631	155	54	636
Livers, John A., Gettysburg, Pa. Paper-box-covering machine.....	463,196	Nov. 17	1554	405	57	869
Livezey, Thomas E. (See Farrow, John T., assignor.)						
Livingston, Alexander B., Clark's Fork, Idaho. Hay rake and loader.....	449,483	Mar. 31	3614	910	54	1837
Livingston, Edwin C. (See Koetzner and Livingston.)						
Livingston, Francis M., Newark, N. J. Pencil-sharpening machine.....	445,677	Feb. 3	272	71	54	566
Livingston, Joseph T., Kissimmee, Fla. Vehicle reach-coupling.....	450,295	Apr. 14	972	241	55	193
Livingston, Joseph T., Kissimmee, Fla. Bolster-standard.....	463,803	Nov. 24	2520	637	57	1062
Livingston, Reason C., Spring Valley, Minn. Device for lowering and elevating pipes, &c.....	461,351	Oct. 13	1250	318	57	250
Livingston, William, Exeter, N. H. Tension device for loom-shuttles.....	454,013	June 9	1259	327	55	1397
Llewellyn & Co., Firm of W. S. (See Llewellyn and Simmons, assignors.)						
Llewellyn, Daniel F., Sugar Notch, Pa. Cartridge-filler.....	450,465	Apr. 14	1242	303	55	243
Llewellyn, George W., Glen Moore, Pa. Clothes-drier.....	449,484	Mar. 31	3615	910	54	1838
Llewellyn, Walter S., and C. Simmons, assignors to the Firm of W. S. Llewellyn & Co., Cardiff, England. Milk-can.....	461,097	Oct. 13	848	219	57	170
Lloyd, George, King, Canada. Automatic stock-feeder.....	458,588	Sept. 1	64	14	56	1078
Lloyd, George A., et al. (See Garland, William H., assignor.)						
Lloyd, George H. (See Roney and Lloyd.)						
Lloyd, Hal A., Kansas City, Mo. Curtain-ring.....	452,886	May 26	2327	587	55	1040
Lloyd, Henry H., Camden, assignor to Electric Storage Battery Company, Gloucester City, N. J. Making electrodes for secondary batteries.....	451,407	Apr. 28	2742	679	55	556
Lloyd, John B. (See Harsin, Elmer E., assignor.)						
Lloyd, Marshall B. (See White and Lloyd.)						
Lloyd, Walter J., and W. Priest, Birmingham, England. Seat for velocipedes.....	448,969	Mar. 21	2756	696	54	1669
Lloyd, Walter J., and W. Priest, Birmingham, England. Velocipede.....	450,888	Apr. 21	1931	{ 473 } { 474 }	{ 55 }	390
Lloyd, William H., Lennox, Iowa. Sash-fastener.....	462,928	Nov. 10	1143	295	57	780
Lloyd, William J. (See Leopold, Charles F., assignor.)						
Lo Casto, Tony, Jefferson, Tex. Hand-car.....	460,558	Oct. 6	21	5	57	6
Lobdell, Alonzo, Racine, Wis. Attachment for bridle-bits.....	449,163	Mar. 31	3054	772	54	1735
Lobdell Car Wheel Company. (See Lobdell, William W., assignor.)						
Lobdell, William W., assignor to Lobdell Car Wheel Company, Wilmington, Del. Chilled car-wheel.....	463,426	Nov. 17	1926	503	57	940
Locher, James, Decatur, Ill. Automatic stop for number-registers.....	456,196	July 21	1410	{ 374 } { 375 }	{ 56 }	287
Löschert, Carl, Berlin, Germany. Cement for joining the ends of driving-belts.....	446,458	Feb. 17	1580		54	839
Lochmann, Oskar P., Gohlis, near Leipzig, Germany. Time stamping or printing instrument.....	451,767	May 5	499	123	55	673
Lock, Charles, London, England. Manufacture of axles or shafts.....	451,676	May 5	357	88	55	617
Lockard, John K., Bloomsburg, Pa. Baggage-check.....	457,162	Aug. 4	351	90	56	600
Locke, Arthur S. (See Merrill, Stephen A., assignor.)						
Locke Brothers. (See Locke, Nathaniel C., assignor.)						
Locke, Fred M., and F. E. Cobb, Victor, N. Y. Suspension device for pails.....	454,655	June 23	2349	577	55	1597
Locke, Henry H. (See Bird, John, assignor.)						
Locke, Howard G., Weymouth, W. H. Cary, Brockton, and J. E. Kimball, Abington; said Locke assignor to Brockton Last Company, Brockton, Mass. Shoe-tree.....	452,142	May 12	1129	{ 286 } { 287 }	{ 55 }	794
Locke, Joseph S., assignor to J. R. Harter, Bartonla, Ind. Lifting-jack.....	455,628	July 7	533	140	56	103
Locke, Luther F., Nashua, N. H. Ventilated shoe.....	466,061	Dec. 29	3313	846	57	1806
Locke, Nathaniel C., assignor to Locke Brothers, Salem, Mass. Pressure-regulator.....	448,443	Mar. 17	1931	486	54	1504
Locke, Sylvanus D., Hoosick Falls, N. Y. Mail-bag.....	459,875	Sept. 22	2114	531	56	1497
Locke, William T., Springdale, Ark. Corn-planter.....	452,906	May 26	2358	596	55	1046
Lockett, Oswald. (See Pennington, Richard, assignor.)						
Lockey, James M. (See Wies, Charles, assignor.)						
Lockhart, John M. (See Campbell, James A., assignor.)						
Lockman, Christopher F. (See Keogh and Lockman.)						
Lockstaedt, Carl C., assignor, by mesne assignments, to Universal Company, Chicago, Ill. Folding chair.....	454,912	June 30	2669	684	55	1684
Lockwood, Amelia R. (See Bedford, George J., assignor.)						
Lockwood, Charles L., Philadelphia, Pa. Christmas-box.....	461,352	Oct. 13	1252	319	57	251
Lockwood, Elias R., Beatrice, Nebr. Friction-clutch and swivel-support.....	456,363	July 21	1681	442	56	338
Lockwood, Frederic A. (See Fraser, Robert H., assignor.)						
Lockwood, Frederick J., assignor to F. S. Fairchild, Bridgeport, Conn. Holder for soap-powder.....	445,958	Feb. 3	720	176	54	651
Lockwood, Henry H., Olean, N. Y. Two-wheeled vehicle.....	450,166	Apr. 14	764	194	55	155
Lockwood, Henry H., Olean, N. Y. Vehicle-shaft.....	450,167	Apr. 14	765	194	55	155
Lockwood, John. (See Greshon, John A., assignor.)						
Lockwood, Rhodes, Boston, Mass. Atomizer.....	453,650	June 9	745	192	55	1217

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Lockwood, Rhodes, Boston, Mass. Atomizer	454,055	June 16	1313	342	55	1415
Loeb, Leon N., <i>et al.</i> (See Bonwick, William P., assignor.)						
Loeb, Albert H., Rochester, N. Y. Tone-modulator for musical instruments	444,448	Jan. 13	726	190	54	152
Loeffler, William, Sheboygan, Wis. Carving-machine	462,096	Oct. 27	2504	{ 622 623 }	57	502
Loehner, August, St. Louis, Mo. Nut-lock	462,318	Nov. 3	160	41	57	581
Loehner, August, and E. G. Newman, St. Louis, Mo. Invalid-table	462,319	Nov. 3	161	41	57	581
Loesch, Theodore, and H. Schmith, Litchfield, Ill. Bolt	459,110	Sept. 8	894	214	56	1247
Loether, Hugo, Fredonia, Kans. Fence-clamp	461,762	Oct. 20	1983	490	57	394
Loew, Silas, Burnip's Corners, Mich. Heating-drum	457,282	Aug. 4	561	148	56	637
Loewenbach, Hugo, Milwaukee, Wis. Combined receipt and record book	447,884	Mar. 10	1003	253	54	1315
Loewenstein, Rachel, <i>et al.</i> (See Hubbell, Charles H., assignor.)						
Loewenthal, Randolph A. (See Mitchell, Nathaniel C., assignor.)						
Loewenthal, Rudolph A., New York, N. Y. Production of reclaimed rubber	452,439	May 19	1616		55	897
Loft, Arthur, Sioux City, Iowa. Roll-paper holder and cutter	450,168	Apr. 14	766	194	55	155
Loftus, John, assignor of one-half to E. W. Smith, Albany, N. Y. Safety-valve	446,782	Feb. 17	2061	513	54	933
Logan, Albert J., Clearfield, Pa. Lifting-jack	462,566	Nov. 3	549	{ 133 134 }	57	656
Logan, Elmer E., Larned, Kans. Force-feed attachment for thrashing-machines	465,714	Dec. 22	2726	695	57	1683
Logan, James, <i>et al.</i> (See Swift, Henry D. and D. W., assignors.)						
Logan, John, Waltham, Mass. Apparatus for coloring watch-springs	459,914	Sept. 22	2180	548	56	1508
Logan, Manrice S., Otterville, and J. H. Barley, Sedalia, Mo. Electric-arc lamp	459,757	Sept. 22	1926	485	56	1460
Logan & Strobbridge Iron Company. (See Phillis, Avery E., assignor.)						
Logan, Thomas H., U. S. Army. Artesian-well borer	444,839	Jan. 20	1352	350	54	281
Loger, David E., Ocheyedan, Iowa. Flaxseed-separator	458,469	Aug. 25	2516	612	56	1031
Loggie, Robert, and J. Mazroll, Black Brook, Canada; said Mazroll assignor to said Loggie. Can-soldering machine	453,085	May 26	2657	670	55	1104
Logsdon, Matthew, and G. Brauns, Jr., Kokomo, Ind. Hub-attaching device	464,977	Dec. 15	1500	376	57	1441
Lohbiller, Anton, Boston, Mass. Safety-valve	463,261	Nov. 17	1661	434	57	890
Lohff, Hans C., Franklin, Nebr. Corn-planter	460,588	Oct. 6	71	19	57	16
Lohlker, Adam H., St. Paul, Minn. Paper-hanging machine	453,174	May 26	2835	{ 710 711 }	55	1135
Lombard, Louis. (See Descomps, Edouard, assignor.)						
Lombard, Nathaniel, Boston, Mass. Cross-head block for engines	450,632	Apr. 21	1539	370	55	317
Lombard, Nathaniel, assignor to T. A. Johnston and H. A. Clark, Boston, Mass. Braid- ing-machine	458,398	Aug. 25	2415	{ 588 589 }	56	1012
Lombard, Nathaniel, assignor to T. A. Johnston and H. A. Clark, Boston, Mass. Braid- ing-machine	458,470	Aug. 25	2518	{ 612 613 }	56	1031
Lombard, Nathaniel, assignor to T. A. Johnston and H. A. Clark, Boston, Mass. Braid- ing-machine	458,471	Aug. 25	2523	{ 613 614 }	56	1031
London Toilet Bazar Company. (See Cassidy, Isabel, assignor.)						
Loneragan, James F., Philadelphia, Pa. Cock or faucet	453,012	May 26	2535	642	55	1081
Loneragan, James F., Philadelphia, Pa. Lubricator	453,013	May 26	2537	642	55	1081
Loneragan, John E., Philadelphia, Pa. Testing-yoke for safety-valves	455,001	June 30	2858	727	55	1720
Loneragan, John E., and A. Fogel, Philadelphia, Pa. Steam-trap	455,002	June 30	2859	727	55	1721
Loneragan, Thomas, Beebe, Ark. Bedstead-brace	458,287	Aug. 25	2229	545	56	976
Long, Albert T. (See Turner, Hamilton, and Long.)						
Long & Allstatter Company. (See Long, John M. W., assignor.)						
Long, Benjamin, Boulder, Colo. Cartridge	448,057	Mar. 10	1289	330	54	1370
Long, Brewster A., Troy, Pa. Horse-training blind	449,485	Mar. 31	3616	910	54	1818
Long, Archibald A., assignor of one-half to I. S. Humbert, Staunton, Va. Door-securer	461,705	Oct. 20	1896	469	57	376
Long, Edward M. (See Coates and Long.)						
Long, Ellis O., W. O., and H. S., Hayesville, Ohio. Horse-power	453,195	June 2	24	7	55	1153
Long, Eugene F., Scranton, Pa. Car-coupling	449,221	Mar. 31	3150	794	54	1752
Long, Harriet L., West Toledo, Ohio. Device for cooking eggs	462,929	Nov. 10	1144	296	57	780
Long, Henry E., Des Moines, Iowa. Toe-weight for horses	450,826	Apr. 21	1834	445	55	371
Long, Herbert S. (See Long, Ellis O., W. O., and H. S.)						
Long, Hezekiah E., Pittsburg, Pa. Vise	457,419	Aug. 11	826	213	56	694
Long, J. Milton and N. H., Muncie, Ind. Saw-handle	461,502	Oct. 20	1563	384	57	315
Long, John M., Hamilton, Ohio. Punching-machine work-holder	456,578	July 24	2032	538	56	413
Long, John M., Hamilton, Ohio. Punching-machine work-holder	456,579	July 28	2034	538	56	413
Long, John M., Hamilton, Ohio. Beam-coping die	464,130	Dec. 1	180	44	57	1171
Long, John M. W., assignor to Long & Allstatter Company, Hamilton, Ohio. Balanced cultivator	446,388	Feb. 10	1451	356	54	801
Long, John M. W., assignor to Long & Allstatter Company, Hamilton, Ohio. Pawl-and- ratchet mechanism	454,440	June 16	1895	494	55	1525
Long, John R., Akron, Ohio. Weather-strip	451,562	May 5	177	43	55	613
Long, Nathan H. (See Long, J. Milton and N. H.)						
Long, Thomas, Boston, Mass. Centrifugal machine	454,056	June 16	1314	{ 342 343 }	55	1415
Long, Thomas, Boston, Mass. Centrifugal drying-machine	462,495	Nov. 3	428	{ 101 105 }	57	632
Long, Willard O. (See Long, Ellis O., W. O., and H. S.)						
Long, William H., Miamisburg, Ohio. Carriage-body-maker's trestle	459,010	Sept. 8	720	177	56	1214
Long, William K., assignor of one-half to F. A. Frey, Grand Island, Nebr. Weed-puller	451,495	May 5	76	19	55	594
Longabaugh, John J., Gray Lake, Ill. Combined trough-supporter and flock-separator	465,483	Dec. 22	2357	604	57	1613
Longacre Company. (See Longacre, Matthias R., assignor.)						
Longacre, Matthias R., assignor to Longacre Company, Limited, Philadelphia, Pa. Cash- registering and indicating machine	449,328	Mar. 31	3340	{ 842 843 }	54	1785
Longcoy, William H. (See Compton and Longcoy.)						
Longden, John N., New York, N. Y. Marine paint	446,812	Feb. 17	2124		54	947
Longenecker, Charles K., assignor to Weston Engine Company, Painted Post, N. Y. Steam- engine governor	457,322	Aug. 4	636	{ 167 168 }	56	651
Longenecker, Theodore F., Dayton, Ohio. Window-sash	451,596	May 5	228	55	55	623
Longley, Reginald R. (See Reagan and Longley.)						
Longval, Oliver, Millbury, Mass. Carpenter's plane	444,897	Jan. 20	1477	382	54	305
Longwell, Henry E., Chicago, Ill., assignor to Westinghouse, Church, Kerr & Company, New York, N. Y. Steam-separator	459,498	Sept. 15	1501	376	56	1373
Longworth, Henderson F., Beloit, Kans. Stalk-fodder harvester	450,244	Apr. 14	904	224	55	180
Lonie, John A. (See Cropper and Lonie.)						
Look, John C., San José, Cal. Car-coupling	465,987	Dec. 29	3171	{ 813 814 }	57	1778
Leomis, Andrew J., Canton, N. Y. Shingle-roofing	465,064	Dec. 15	1668	424	57	1472
Leomis, Charles F., Birmingham, Conn. Fish-line reel	459,511	Sept. 15	1526	381	56	1378

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Loomis, D. S. (See Staples and Houghton, assignors.)						
Loomis, Edward B. (See Bugg and Loomis.)						
Loomis, Frank F., Akron, Ohio. Non-interfering fire-alarm box	461,169	Oct. 13	951	{ 245 246 }	{ 57 }	189
Loomis, George L. (See Kelsey, Frank N., assignor.)						
Loomis, Kelsey A., Albion, Mich. Crupper	457,651	Aug. 11	1176	302	56	761
Loomis, M. D. W. (See Winkler, Rudolf, assignor.)						
Lopez, Moses E., et al. (See Memminger, Allard, assignor.)						
Lorang, Rudolph, Chicago, Ill. Bridge for musical instruments	455,231	June 30	3232	821	55	1793
Lorang, Rudolph, Chicago, Ill. Bridge-gate	455,669	July 7	599	157	56	116
Lord, Arthur, trustee. (See Wright, Alexander P., assignor.)						
Lord Brothers. (See Lord and Whitworth, assignors.)						
Lord Brothers. (See Lord and Woodhead, assignors.)						
Lord Brothers. (See Stocks and Lord, assignors.)						
Lord, Charles B. (See Cash, Francis C., assignor.)						
Lord, Charles B., et al. (See Cash, Francis C., assignor.)						
Lord, Charles B., et al. (See Hunt and Cash, assignors.)						
Lord, Charles E., Boston, Mass., assignor to National Cash Register Company, Dayton, Ohio. Cash register and indicator	445,670	Feb. 3	245	67	54	560
Lord, Charles E., Boston, Mass., assignor to National Cash Register Company, Dayton, Ohio. Cash indicator and register	454,972	June 30	2793	{ 712 713 }	{ 55 }	1708
Lord & Co., Charles W. (See Oram, John W., assignor.)						
Lord, George W., Boston, Mass. Draft or air forcing device	449,486	Mar. 31	3617	910	54	1838
Lord, George W., Boston, Mass. Air-forcing device	465,326	Dec. 15	2100	536	57	1553
Lord, Lewis L. (See Hazlet and Lord.)						
Lord, Loren B., Burlington, Vt. Drinking-fountain for fowls	455,756	July 14	752	198	56	153
Lord, Peter. (See Decarie and Lord.)						
Lord, Peter, assignor to A. B. Cadwell, Montreal, Canada. Hand device for imparting rotary motion	463,371	Nov. 17	1839	481	57	924
Lord, Will. (See Stocks and Lord.)						
Lord, Will, and F. Woodhead, assignors to Lord Brothers, Todmorden, England. Means for adjusting bearings of carding-machines	464,160	Dec. 1	230	55	57	1179
Lord, Will, Todmorden, and T. S. Whitworth, Manchester, assignors to Lord Brothers, Todmorden, England. Traveling-flat carding-engine	464,161	Dec. 1	231	56	57	1179
Lord, William K., Mount Carmel, Pa. Time-annunciator for music	458,251	Aug. 25	2156	529	56	964
Lord, William T., Hammersmith, England. Steam-engine	459,407	Sept. 15	1366	342	56	1348
Lorenson, John, assignor of three-eighths to M. N. Hansen, Waterbury, Conn. Combined umbrella and fan	459,934	Sept. 22	2208	554	56	1514
Lorentz, George A., St. Paul, Minn. Stocking	455,757	July 14	752	198	56	154
Lorenz, Louis R. (See Fichtner, Josef, assignor.)						
Lorenz, William A., assignor to A. H. Walker, trustee, Hartford, Conn. Paper-bag machine	444,728	Jan. 13	1171	{ 301 302 }	{ 54 }	238
Lorenz, William A., and E. E. Claussen, assignors to A. H. Walker, trustee, Hartford, Conn. Paper-bag machine	444,729	Jan. 13	1177	{ 303 304 }	{ 54 }	239
Lorenz, William A., and E. E. Claussen, assignors to A. H. Walker, trustee, Hartford, Conn. Paper-bag machine	459,445	Sept. 15	1422	{ 356 357 }	{ 56 }	1358
Lorey & Co. (See Lorey, William, assignor.)						
Lorey, William, assignor to Lorey & Co., Philadelphia, Pa. Vise	457,997	Aug. 18	1759	462	56	880
Lorillard, Jacob, New York, N. Y. Steam boiler or generator	462,868	Nov. 10	1034	268	57	760
Lorimer, John H., Philadelphia, Pa. Drying-machine	445,226	Jan. 27	2011	518	54	417
Lorimer, John H., Philadelphia, Pa. Apparatus for drying warp, &c	454,913	June 30	2670	684	55	1684
Lorimer, John H., Philadelphia, Pa. Machine for decorticating fibrous plants, &c	456,730	July 28	2289	606	56	462
Loring & Blake Organ Company. (See Loring, Elmer H., assignor.)						
Loring, Charles A., Atlanta, Ga. Spring-motor	445,563	Feb. 3	67	16	54	525
Loring, Elmer H., assignor to Loring & Blake Organ Company, Worcester, Mass. Organ-pedal	465,279	Dec. 15	2026	518	57	1539
Loring, G. Anderson, et al. (See Claflin, Frank O., assignor.)						
Lornie, John G. (See Flynn, Richard F., assignor.)						
Lossie, William and W. Jr., Owensborough, Ky. Eaves-trough	459,473	Sept. 15	1463	368	56	1366
Lostutter, David, assignor of one-half to J. W. Bunker, North's Landing, Ind. Device for operating baling-presses	456,703	July 28	2243	594	56	453
Loth, William J., et al. (See McCabe, Edward T., assignor.)						
Lotspeich, William A., Mohawk, Tenn. Sheet-metal-grooving machine	463,287	Nov. 17	1692	442	57	896
Lott, Charles E., et al. (See Smith, George A., assignor.)						
Lott, John B., Kittanning, Pa. Vehicle-wheel	460,681	Oct. 6	237	59	57	48
Lotterbos, August, et al. (See Stewart, William A., assignor.)						
Lottridge, William M., Portsmouth, Ohio, assignor of one-half to J. E. Valjean. Surgical apparatus	458,774	Sept. 1	340	82	56	1131
Lond, George D. (See Langill, Charles H., assignor.)						
Lond, George W., Brooklyn, N. Y. Necktie	448,444	Mar. 17	1933	486	54	1504
London, Cornelius, Gorham, N. Y. Watch-maker's tool	455,629	July 7	534	140	56	103
Louden, William, Fairfield, Iowa. Hay-sling	444,546	Jan. 13	892	232	54	186
Louden, William, Fairfield, Iowa. Horse hay-fork	465,380	Dec. 15	2199	563	57	1571
Loughridge, Theodore J., Oshkosh, Wis. Truss	458,472	Aug. 25	2526	614	56	1032
Loughry, Edward A. and J. Redfern, near Sydney, New South Wales. Water-gage	453,814	June 9	996	260	55	1345
Loughry, James. (See Loughry, Edward A. and J.)						
Loughry, William A., Odessa, Nebr. Combined lister and drill	461,353	Oct. 13	1253	319	57	251
Louisville Chair Company. (See Westermann, William, assignor.)						
Lounsberry, Clement A., Bismarck, N. D. Metallic socket for fence-posts, &c	444,497	Jan. 13	819	214	54	171
Lounsberry, John, Owego, N. Y. Iron bridge	453,342	June 2	255	68	55	1196
Lounsberry, James A., assignor to G. Cutter, Chicago, Ill. Automatic supporting-lock	448,970	Mar. 24	2758	696	54	1669
Loutsky, Vladimir, Sophia, Bulgaria. Gas-motor	460,241	Sept. 29	2663	{ 663 664 }	{ 56 }	1608
Love Electric Traction Company. (See Love, John C., assignor.)						
Love, Harry H., Sacramento, Cal. Wrench	454,219	June 16	1557	409	55	1461
Love, Harry H., Sacramento, Cal. Ruling-pen	454,220	June 16	1558	410	55	1461
Love, Henry, Crenset, France. Double-action revolver	445,511	Jan. 27	2419	631	54	497
Love, John B., et al. (See Collins, Samuel, assignor.)						
Love, John C., Philadelphia, Pa., assignor to Love Electric Traction Company, Chicago, Ill. Electrical conduit	463,197	Nov. 17	1556	405	57	869
Love, Robert H., Allen, Tex. Machine for dressing surfaces of pavements	462,264	Nov. 3	70	17	57	565
Love, S. Arthur, et al. (See Collins, Samuel, assignor.)						
Lovejoy, Arthur H. (See Lane and Lovejoy.)						
Lovejoy, Clinton C., Bethel, Me. Device for checking and unchecking	463,306	Nov. 17	1729	451	57	903

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Lovejoy, Fred E. (See Bachelder and Lovejoy.)						
Lovejoy, Fredric C., Albany, N. Y. Camp-stool	455,345	July 7	69	19	56	18
Lovejoy, Fredric C., Albany, N. Y. Sectional ladder	461,521	Oct. 20	1604	392	57	322
Lovejoy, Henry L., assignor to J. S. Ludlam, Lowell, Mass. Cash and parcel carrying apparatus	451,408	Apr. 28	2745	679	55	556
Lovejoy, Henry L., assignor to J. S. Ludlam, Lowell, Mass. Cash-carrying apparatus	463,684	Nov. 24	2343	615	57	1029
Lovejoy, Ira A., Rochester, N. Y. Ventilator	454,179	Aug. 25	2033	527	56	941
Loveless, Fred H., La Fayette, Ind. Parcel-strap	448,657	Mar. 24	2276	570	54	1576
Lovell Manufacturing Company. (See Clark, William H., assignor.)						
Lovell Manufacturing Company. (See Lovell, Melvin N., assignor.)						
Lovell Manufacturing Company. (See Walker, Addison W., assignor.)						
Lovell, Melvin N., Erie, Pa. Journal-bearing	447,492	Mar. 3	382	93	54	1189
Lovell, Melvin N., assignor to Lovell Manufacturing Company, Limited, Erie, Pa. Cash register and indicator	445,959	Feb. 3	721	176	54	654
Lovell, Melvin N., assignor to Lovell Manufacturing Company, Limited, Erie, Pa. Cash register and indicator	445,960	Feb. 3	725	177	54	654
Lovell, Melvin N., assignor to Lovell Manufacturing Company, Limited, Erie, Pa. Anti-friction roller-bearing	449,046	Mar. 24	2873	730	51	1692
Lovell, Melvin N., assignor to Lovell Manufacturing Company, Limited, Erie, Pa. Anti-friction roller-bearing	449,047	Mar. 24	2874	730	54	1692
Lovell, Melvin N., assignor to Lovell Manufacturing Company, Limited, Erie, Pa. Clothes-wringer	450,080	Apr. 7	638	160	55	125
Lovell, Thomas H., Cleveland, Ohio. Double-contact switch	456,493	July 21	1896	501	56	378
Loveridge, Orange M., Weaverville, Cal. Derrick	455,630	July 7	536	140	56	104
Lovett, Eliphalet R., assignor of part to M. O. Davis, A. S. Carr, J. H. Preble, Lynn, and L. G. Peabody, Peabody, Mass. Slate-pencil sharpener	449,625	Mar. 31	3849	964	54	1841
Lovett, Eliphalet R., Lynn, assignor of four-fifths to L. S. Peabody, Peabody, M. O. Davis, A. S. Carr, and J. H. Preble, Lynn, Mass. Slate-pencil sharpener	458,032	Aug. 18	1815	473	56	891
Lovibond, Joseph W., Salisbury, England. Tintometer	451,828	May 5	582	144	55	690
Low, Abbot A. (See Johnson and Low.)						
Low, Abbot A., Brooklyn, N. Y. Card or ticket case	446,069	Feb. 10	915	223	54	698
Low, Abbot A., Brooklyn, N. Y. Match-box holder	459,870	Sept. 22	2104	529	56	1495
Low, Abbot A., Brooklyn, N. Y. Combination pocket implement	464,138	Dec. 1	194	47	57	1174
Low, Abbot A., Brooklyn, N. Y. Combination pocket implement	464,139	Dec. 1	196	47	57	1174
Low, Abbot A., Brooklyn, N. Y. Combination pocket implement	464,140	Dec. 1	198	48	57	1174
Low, Abbot A., Brooklyn, N. Y. Combination pocket implement	464,141	Dec. 1	200	48	57	1175
Low, Abbot A., Brooklyn, assignor to Alden Type Machine Company, New York, N. Y. Type-containing channel	445,702	Feb. 3	309	82	54	573
Low, Garrett W., and W. Shakespeare, Jr., Kalamazoo, Mich. Photographic shutter	446,529	Feb. 17	1690	414	54	860
Low, Philip M., assignor of one-half to F. Dekum, trustee, and G. H. Durham, East Portland, Oreg. Spark-arrester	459,179	Sept. 8	1001	244	56	1266
Low, Robert, London, England. Manufacture of hollow projectiles or shells	447,690	Mar. 3	662	164 165 166	54	1243
Lowden, James J., Everett, assignor of one-half to H. G. Thomas, Boston, Mass. Apparatus for purifying oil	463,062	Nov. 10	1328	343 344	57	818
Lowden, James J., Everett, assignor of one-half to H. G. Thomas, Boston, Mass. Process of and apparatus for purifying oil	465,822	Dec. 22	2887	738	57	1715
Lowden, Richard J., et al. (See Berne, Arthur W., assignor.)						
Lowdon, John C., Kansas City, Mo., and J. Dixon; said Lowdon assignor to S. C. Elliott, Kansas City, Kans. Smoke-consumer	448,530	Mar. 17	2055	514	54	1527
Lowe, Austin, assignor of nine-tenths to Minneapolis Improved Typewriter Company, Minneapolis, Kans. Type-writing machine	465,523	Dec. 22	2888	738	57	1715
Lowe, Frank W., Boston, Mass. Display-stand	452,107	May 12	1070	371	55	784
Lowe, Frank W., Boston, Mass. Hinge	460,589	Oct. 6	72	20	57	16
Lowe, John H. (See White, Albert P., assignor.)						
Lowe, John M., Butler, Ind. Wind-wheel	446,783	Feb. 17	2062	514	54	934
Lowe, Nathaniel M., assignor to himself, F. P. Stone, and C. A. Shaw, Boston, Mass. Coin-operated platform weighing-scale	449,626	Mar. 31	3850	964	54	1881
Lowe, Thaddeus S. C., Norristown, assignor to Guarantee Trust and Safe Deposit Company, trustee, Philadelphia, Pa. Apparatus for the manufacture of water-gas	445,450	Jan. 27	2331	606	54	481
Lowe, William C., Hapeville, Ga. Automatic car-brake	459,141	Sept. 8	937	225	56	1255
Lowe, William E. (See Clapp, Joseph, assignor.)						
Lowell, Albert H., Woodford's, Me. Pump	461,354	Oct. 13	1254	319	57	251
Lowell Machine Shop. (See Canning, William P., assignor.)						
Lowell Machine Shop. (See Canning and Whitaker, assignors.)						
Lowell Machine Shop. (See Curtice, John M., assignor.)						
Lowell Machine Shop. (See Hildreth, Charles L., assignor.)						
Lowell Machine Shop. (See Whitaker, Channing, assignor.)						
Lowendahl, John, Chicago, Ill. Window-head fastener	444,840	Jan. 20	1354	351	54	281
Lowerre, Thomas R., New York, N. Y. Letter-box	465,580	Dec. 22	2528	644	57	1644
Lowman, John, and J. Howard, assignors to Fisher, Howard & Sons, London, England. Machine for the manufacture of corks by grinding. (Reissue)	11,160	May 5	697	176 177	55	710
Lownes, Phineas W., Orlando, Fla. Wrench	446,220	Feb. 10	1171	287	54	743
Lowrey, Bill G., Blue Mountain, Miss. Wagon-lock	451,861	May 5	628	156	55	698
Lowrey, Mark B., Memphis, Tenn. Money-changer	452,757	May 19	2126	535	55	993
Lowry, George, Northampton, England. Stone-crusher	461,583	Oct. 20	1694 415	57	339	
Lowry, George A., assignor to Alliance Twine Company, Des Moines, Iowa. Grain-binder	446,784	Feb. 17	2064	514	54	934
Lowry, George A., assignor to Alliance Twine Company, Des Moines, Iowa. Automatic feeder for twine-making machines	451,496	May 5	77	20	55	594
Lowry, George A., assignor to Alliance Twine Company, Des Moines, Iowa. Automatic feeder for twine-making machines	451,497	May 5	79	20	55	594
Lowthime, David A., London, England. Case for opera-glasses	463,634	Nov. 24	2266	597	57	1015
Lov, Irvin W., and R. O'Toole, Mechanicstown, assignors of one-third to J. E. Mathews, Baltimore, Md. Automatic circuit-closing device for railway-signals	445,564	Feb. 3	69	16	54	525
Lozier, Henry A. (See Yost and Moore, assignors.)						
Lozier, Harry A., et al. (See Hanson, Olaus, assignor.)						
Lubin, David, Sacramento, Cal. Writing-pen attachment	451,221	June 16	1559	410	55	1461
Luby, William A., Kalamazoo, Mich. Railway signaling device	453,447	June 2	433	111 112	55	1230
Lucas, Christian E., Atlanta, Ga. Combination desk and document-cabinet	454,368	June 16	1777	463	55	1502
Lucas, Edward J., et al. (See Jenner, Frederick, assignor.)						
Lucas, George W., San Antonio, Tex. Padlock	444,449	Jan. 13	727	191	54	152

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Lucas, George W., Tucson, Ariz. Ter. Padlock	453,263	June 2	132	35	55	1173
Lucas, John M., Cadiz, Ohio. Safety device for pocket-books	451,829	May 5	584	144	55	690
Lucas, Raymond A., and J. T. Murray, Kohala, Hawaii. Dumping-wagon	458,910	Sept. 1	567	138	56	1173
Lucas, Raymond A., and C. F. Phelps, Kohala, Hawaii. Safety attachment for stem-wind- ing watches	458,911	Sept. 1	568	138	56	1174
Lucas, Robert, Macon, Ga. Mechanism for raising the weights of drawing-rollers	460,302	Sept. 29	2766	688	56	1628
Luce, Bartlett P., Boston, Mass., assignor to Bristol Brass and Clock Company, Forestville, Conn. Wick-raising mechanism for lamps	444,598	Jan. 13	970	251	54	201
Luce, Bartlett P., Boston, Mass., assignor to Bristol Brass and Clock Company, Bristol, Conn. Wick-raiser	450,106	Apr. 7	675	171	55	132
Luce, Charles J., Niantic, Conn. Car brake and starter	447,780	Mar. 10	823	205	54	1281
Luce, Charles J., Niantic, Conn. Trolley-carriage and conductor	447,885	Mar. 10	1005	253	54	1315
Luce, Norman. (See Gohring, William H., assignor.)						
Luce, William B., Boston, Mass. Electric hand-fan	457,127	Aug. 4	294	77	56	589
Lucia, Louis. (See Barnes, Murray, and Lucia.)						
Lucigen Light Company. (See Grimston, George S., assignor.) (Reissue.)						
Luckey, John H., New York, N. Y. Bottle-stopper	461,941	Oct. 27	2286	566	57	461
Luckock, John G., et al. (See Robison, Charles W. and S. D., assignors.)						
Luckock, John S. (See Winton and Luckock.)						
Ludde, Elard, Maspeth, N. Y. Powder-blower	459,915	Sept. 22	2182	548	56	1508
Ludgin, Louis, Chicago, Ill. Map-case	464,030	Dec. 1	38	11	57	1144
Ludington Company. (See Ludington and Pollard, assignors.)						
Ludington, Frank J., Waterbury, Conn., and E. T. Pollard, Richmond, Va., assignors to } Ludington Company, New Haven, Conn. Cigarette machine	454,593	June 23	2139	551 552 553 554 555	55	1579
Ludlam, Joseph S. (See Lovejoy, Henry L., assignor.)						
Ludlow, George W., Chicago, Ill. Shoe-maker's bench	446,135	Feb. 10	1020	252	54	718
Ludlow, Samuel W., Madisonville, Ohio. Fire-alarm and telephone system	450,245	Apr. 14	907	224 225	55	180
Ludlow, Samuel W., Madisonville, Ohio. Fire-alarm and telephone system	450,466	Apr. 14	1243	304	55	243
Ludlow, Washington I., assignor to Cleveland Window Shade Company, Cleveland, Ohio. Staple-tack blank	450,246	Apr. 14	909	225	55	181
Ludlow, William E., Toledo, Ohio. Combined car step and gate	462,769	Nov. 10	866	227 228	57	727
Ludlum, Albert C., Denver, Colo. Adding and writing machine. (Reissue.)	11,147	Mar. 3	762	190	54	1263
Ludlum, William E., Pompton, N. J. Spring for locomotives	458,705	Sept. 1	245	58	56	1112
Ludovici, Charles, New York, N. Y. Elevator-indicator	455,947	July 14	1045	273 274	56	207
Ludwick, William F., Beaumont, Kans. Harrow	455,256	June 30	3281	831	55	1802
Ludwig, Franz, Dusseldorf, Germany. Door-guard	456,998	Aug. 4	107	26	56	554
Ludwig, Heinrich, Schweinfurt, Germany. Lock	446,101	Feb. 10	964	237	54	707
Ludwig, John C., assignor of seven-eighths to H. T. Compton, L. F. Montague, T. Paige, G. H. Roe, San Francisco, A. T. Ayres, W. C. Mason, Oakland, Cal., and H. J. Ayres, Akron, Ohio. Apparatus for intensifying electrical undulations	448,153	Mar. 10	1422	363	54	1398
Luehrs, Michel D., Cleveland, Ohio. Bolt-header	460,058	Sept. 22	2345	596	56	1547
Luehrs, Michel D., Cleveland, Ohio. Bolt heading and forging machine	466,249	Dec. 29	3598	921	57	1860
Lutkin, John W., Winchester, Mass. Button-hole-stitching machine	451,498	May 5	80	21 22	55	594
Lutkin, John W., Winchester, Mass. Forming overedge or button-hole stitches	461,841	Oct. 27	2118	521	57	427
Lugenbuehl, Charles L. E., New York, N. Y. Piano attachment	449,048	Mar. 24	2875	730	54	1692
Luger, Joseph, Lansing, Mich. Circular sawing-machine	456,364	July 21	1642	443	56	338
Lugo, Orazio, New York, N. Y. Secondary battery	458,424	Aug. 25	2452	596	56	1019
Lugo, Orazio, New York, N. Y. Secondary battery	458,425	Aug. 25	2453	597	56	1019
Lugrin Flexible Door Company. (See Fowler, Rufus B., assignor.)						
Lugrin Flexible Door Company. (See Lugrin, Horatio N. H., assignor.)						
Lugrin, Horatio N. H., Worcester, Mass., assignor to Lugrin Flexible Door Company, Portland, Me. Door	460,208	Sept. 29	2619	654	56	1599
Lugrin, Horatio N. H., Worcester, Mass., assignor to Lugrin Flexible Door Company, Portland, Me. Flexible shutter	461,884	Oct. 27	2185	539	57	441
Lugrin, Horatio N. H., Worcester, Mass., assignor to Lugrin Flexible Door Company, Portland, Me. Flexible door	461,885	Oct. 27	2186	539	57	441
Luitink & Sons Manufacturing Company, William. (See Luitink, William, assignor.)						
Luitink, William, assignor to W. Luitink & Sons Manufacturing Company, Milwaukee, Wis. Door-hanger	453,150	May 26	2762	696	55	1124
Luitwieler, Samuel W. (See Lindgren and Luitwieler.)						
Lukaszewicz, John, Custer, Wis. Grain register and sacker	457,283	Aug. 4	562	149	56	637
Luke, George, Providence, R. I. Clothes-line clamp	455,512	July 7	336	86	56	67
Lukens, G. L., et al. (See Hamilton, Alexander R., assignor.)						
Lukin, George B. (See Sheldon, Lukin, and Baker.)						
Luking, John R., and C. Thompson, Findlay, Ohio. Beef-hoist	455,408	July 7	181	47	56	38
Lumbert, Daniel, Centerville, Mass. Tool-handle fastening	460,829	Oct. 6	457	115	57	91
Lumby, Thomas L., Delphos, Ohio, assignor to himself, and C. A. Ball, Marion, Ind. Ma- chine for cutting threads on bolts and nuts	448,971	Mar. 24	2759	697	54	1669
Lumière, Louis, Lyons, France. Photographic apparatus	444,535	Jan. 13	874	227	54	182
Lumley, Maitland, et al. (See Bonwick, William P., assignor.)						
Lumley, Mary, Versailles, Mo. Washing-machine	450,727	Apr. 21	1671	403	55	342
Lund, Johannes E. (See Lund and Lauritsen, assignors.)						
Lund, Oscar, Long Island City, N. Y. Transom-lifter	449,800	Apr. 7	244	62	55	49
Lund, Oscar, Long Island City, N. Y. Clothes-line pulley and bracket	459,142	Sept. 8	939	225	56	1255
Lund, Soren C., and L. J. Lauritsen, assignors of one-third to J. E. Lund, Woburn, Mass. Cradle	459,708	Sept. 15	1849	465	56	1439
Lundahl, Ernst W., and W. N. Thomas, Logan, Utah Ter. Cheese-press	465,381	Dec. 15	2201	564	57	1571
Lundberg, Fred., Tacoma, Wash. Water-wheel	457,825	Aug. 18	1465	382	56	825
Lundberg, Gustave, Logan, Utah Ter. Weighing-scale	447,691	Mar. 3	665	166	54	1244
Lundborg, Charles G., New York, N. Y. Screw-propelled vessel	452,108	May 12	1070	271 272	55	784
Lundell, Robert, Brooklyn, assignor of one-half to E. H. Johnson, New York, N. Y. Ar- mature for dynamo-electric machines or motors	459,366	Sept. 8	1282	316	56	1323
Lundell, Robert, assignor of one-half to E. H. Johnson, New York, N. Y. Commutator- brush and holder	459,367	Sept. 8	1283	316	56	1323

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Lundell, Robert, assignor of one-half to E. H. Johnson, New York, N. Y. Commutator-cylinder and making the same	459,368	Sept. 8	1285	317	56	1323
Lundell, Robert, assignor of one-half to E. H. Johnson, New York, N. Y. Armature for electric motors or dynamos	461,795	Oct. 20	2043	503 504	57	404
Lundgren, Frana, Stockholm, Sweden. Machine for filling match-boxes	448,445	Mar. 17	1934	487	54	1504
Lundgren, Peter S., Marysville, Kans. Cornstalk-harvester	448,058	Mar. 10	1291	330	54	1370
Lundstedt, Olof E., Brooklyn, N. Y., assignor to J. M. Glover, St. Louis, Mo. Electro-magnet	464,198	Dec. 1	300	73	57	1191
Lundström, Carl J. (See Wahlén, Lundström, and Collins.)						
Lundy, Alpheus A., Penwick, Canada. Corn-harvester	450,371	Apr. 14	1107	271	55	218
Lunkenheimer Brass Manufacturing Company, (See Lunkenheimer, Edmund, assignor.)						
Lunkenheimer, Edmund, Cincinnati, Ohio. Sight-feed lubricator	457,998	Aug. 18	1760	462	56	881
Lunkenheimer, Edmund, Cincinnati, Ohio. Straight-way valve	459,408	Sept. 15	1367	343	56	1348
Lunkenheimer, Edmund, Cincinnati, Ohio. Lubricator	464,306	Dec. 1	479	115	57	1226
Lunkenheimer, Edmund, assignor to Lunkenheimer Brass Manufacturing Company, Cincinnati, Ohio. Sight-feed lubricator	446,993	Feb. 24	2426	604	54	1011
Lunkenheimer, Edmund, assignor to Lunkenheimer Brass Manufacturing Company, Cincinnati, Ohio. Straight-way valve	450,588	Apr. 14	1413	348	55	279
Lunkenheimer, Edmund, assignor to Lunkenheimer Brass Manufacturing Company, Cincinnati, Ohio. Loose-pulley lubricator	453,014	May 26	2538	642	55	1081
Lunkenheimer, Edmund, assignor to Lunkenheimer Brass Manufacturing Company, Cincinnati, Ohio. Straight-way valve	457,128	Aug. 4	295	77	56	590
Lunn, Martha E., Elgin, Ill. Corset	454,981	June 30	2815	716	55	1712
Lunn, Martha E., and M. C. Shafer, Elgin, Ill. Splasher-holder	456,273	July 21	1531	407	56	310
Lunz, John, Clafin, Kans. Link-motion	463,523	Nov. 17	2054	538	57	966
Lurie, Joseph S., Kansas City, Mo. Liquid for separating metals from quartz or other gangue	454,116	June 16	1404	367	55	1431
Lurley, Charles W., assignor of one-half to J. W. Carroll, Lexington, Ky. Chalk-holder	463,972	Nov. 24	2735	724	57	1114
Lusk, Lewis N., Kalamazoo, Mich. Lamp-filling indicator	445,565	Feb. 3	70	17	54	525
Lusk, William M., and W. H. Henkle, Fenton, Mich. Clamping-collar for hose-pipes	455,967	July 14	1075	281	56	213
Luseler, John, Cambridge, assignor of one-half to N. J. Hardy, Arlington, Mass. Bolt-cutter	458,706	Sept. 1	246	58	56	1112
Lutes, Ira, Cairo, Ill. Barrel-trundler	453,086	May 26	2658	670	55	1104
Luther, Benjamin G., Worcester, Mass. Back-gearing mechanism	446,233	Feb. 10	1190	291 292	54	747
Luther & Co., C. A. (See Cavanagh, Charles A., assignor.)						
Lütters, Jonathan, Brooklyn, assignor to R. M. Lamm, New York, N. Y. Pocket-knife	465,715	Dec. 22	2726	696	57	1683
Lüttgen, Walter A., Minneapolis, Minn. Bell	450,169	Apr. 14	767	195	55	156
Lüttke, Hans, and L. Scholvin, assignors to the firm T. D. Riedel, Berlin, Germany. Sali-cylate of phenyldimethylpyrazolone	444,004	Jan. 6	33		54	10
Lutton, William J., Paterson, N. J. Swivel-loom	460,477	Sept. 29	3025	757 758	56	1676
Lutton, William J., Paterson, N. J. Stopping mechanism for swivel-loom	461,584	Oct. 20	1696	415	57	340
Lutton, William J., Paterson, N. J., assignor to Schaum & Uhlinger, Philadelphia, Pa. Warping-machine	459,728	Apr. 21	1672	403 404	55	342
Lutz, Henry, Logan, Ohio. Fire-lighter	457,915	Aug. 18	1624	424	56	855
Lutz, Henry, Logan, Ohio. Car-step	462,496	Nov. 3	431	105	57	633
Lux, Frederick E., Walla Walla, Wash. Self-cleaning weed-cutter	447,781	Mar. 10	826	205	54	1281
Lyle, James, Paisley, Scotland. Oil-burner	453,357	June 2	275	73	55	1199
Lyle, Lane, <i>et al.</i> (See Catlin, Abel D., assignor.)						
Lyman, George N., Sr. (See McGrath, John, assignor.)						
Lyman, George N., Sr. (See McGrath and Smith, assignors.)						
Lyman, George N., Sr. (See Smith and McGrath, assignors.)						
Lyman, Horace C., Monon, Ind. Windmill	457,284	Aug. 4	564	150	56	637
Lyman, Thomas, Bloomington, Ill. Draft-regulator and spark-arrester	461,585	Oct. 20	1698	415	57	340
Lyman, William, Middlefield, Conn. Gun-sight	447,886	Mar. 10	1006	254	54	1315
Lyman, William, Middlefield, Conn. Sight for fire-arms	455,911	July 14	986	257	56	197
Lynam, Joseph, San José, Cal. Globe	444,796	Jan. 13	1273	330	54	256
Lynch, Albert E., <i>et al.</i> (See Scott, Elmer D., assignor.)						
Lynch, Anthony, Philadelphia, Pa. Anti-crib-biting device for horses	453,932	June 9	1146	299	55	1374
Lynch, George D., assignor of one-half to W. G. James, Pittsfield, Ill. Horseshoe	451,332	Apr. 28	2637	652	55	536
Lynch, James A., St. Louis, Mo. Coupling for water-closets	465,617	Dec. 22	2587	657	57	1655
Lynch, James H., Addison, N. Y. Railway-tie	462,717	Nov. 10	785	205	57	710
Lynch, John, Washington, D. C. Street-pavement	448,658	Mar. 24	2277	571	54	1576
Lynch, John, Washington, D. C. Tile for copings	448,972	Mar. 24	2761	697	54	1670
Lynch, John, Washington, D. C., and T. Midgley, Beaver Falls, Pa. Torpedo-guard	463,262	Nov. 17	1662	434	57	890
Lynch, John J., and J. F. Crowley, Rochester, N. Y. Wood-filler	450,296	Apr. 14	973		55	193
Lynch, Thomas F., Philadelphia, Pa. Ice-cutting machine	460,440	Sept. 29	2965	741	56	1665
Lynch, Vernon T., Chicago, Ill. Link for cable-grips	448,973	Mar. 24	2762	697	54	1670
Lynde, Fred, <i>et al.</i> (See Dunn, John P., assignor.)						
Lynea, Alfred M., Brooklyn, N. Y. Fare-card for use at ferries	452,497	May 19	1713	431	55	913
Lynn, Strotter J., Hope, Kans. Cheese-cover	460,441	Sept. 29	2966	742	56	1666
Lynott, John P., Louisiana, Mo. Churn	446,948	Feb. 24	2356	586	54	997
Lyon, A. Maynard. (See Lamb, Watson F., assignor.)						
Lyon, Charles L. (See Williams, Harry J., assignor.)						
Lyon & Healy. (See Durkee, George B., assignor.)						
Lyon & Healy. (See Peloubet, Jarvis, assignor.)						
Lyon, Israel W., Brooklyn, N. Y. Box for tooth-powder	445,067	Jan. 20	1755	452	54	359
Lyon, James H., New London, Conn. Screw-driver	464,574	Dec. 8	870	214	57	1310
Lyon, John B., Brooklyn, N. Y. Electrical switch-board	449,685	Apr. 7	55	14	55	12
Lyon, John B., Brooklyn, N. Y. Electrical switch-board	452,921	May 26	2384	603	55	1050
Lyon, Leonard M., Bethel, Conn. Puzzle	448,974	Mar. 24	2763	698	54	1670
Lyon, William A., and W. E. Sprull, Danbury, Conn. Car-axle	449,684	Apr. 7	54	13	55	12
Lyon, William F., assignor of one-fourth to W. R. Champney, Detroit, Mich. Grain-door for cars	456,381	July 21	1720	455	56	345
Lyons, Benjamin, Kansas City, Mo. Electrical drop-bar for doorways	461,355	Oct. 13	1255	319	57	251
Lyons, Hugh, assignor of one-half to J. F. Crotty, Lansing, Mich. Combined hat con-formator and stretcher	447,751	Mar. 3	760	189	54	1262
Lyons, James E., Cleveland, Ohio. Brush-holder for electric motors	463,635	Nov. 24	2267	597	57	1015
Lyons, James F., Crescent City, Iowa. Animal-trap	458,399	Aug. 25	2418	589	56	1012
Lyons, Robert, Peiro, Iowa. Harrow and cultivator	446,624	Feb. 17	1822	450	54	885
Lyons, Samuel. (See Wagner, Carl A., assignor.)						
Lyons, Thomas, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Stop for latches	450,331	Apr. 14	1035	255	55	205

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Lyons, Thomas, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Door-bolt	458,180	Aug. 25	2035	{ 527 528 }	56	941
Lystad, Hans J., Chicago, Ill. Toast-cutter	462,055	Oct. 27	2449	606	57	491
Lyte, Farnham M., London, England. Making alkaline carbonate and chlorine	462,567	Nov. 3	551	134	57	656
Lytie, Charles F., Sulphur Springs, Iowa. Rein-holder	465,937	Dec. 29	3081	790	57	1761
Lytie, James J., W. F. Evans, and C. Kimber, What Cheer, Iowa. Mining-machine	455,513	July 7	337	86, 87	56	67
MaGee, Arlin E. (See MaGee, Percy F. and A. E.)						
MaGee, Percy F. and A. E., Janesville, Wis. Tobacco-case	456,580	July 28	2036	538	56	413
Mabee, Leonia, Paris, Tex. Bed-drawer attachment for bedsteads	460,022	Sept. 22	2325	{ 582 583 }	56	1536
Mabie, George W. (See Jefferys and Dickman, assignors.)						
Mabye, Peter J., Brooklyn, N. Y. Bevel	456,044	July 14	1187	312	56	234
MacBride, George W. (See Brown, Dewalden L., assignor.)						
MacCormack, John, and H. L. Van Zile, Albany, N. Y. Steam-boiler	446,785	Feb. 17	2065	514	54	934
MacCormack, John, and H. L. Van Zile; said John MacCormack assignor to W. W. MacCormack, Albany, N. Y. Digester for treating paper-stock	464,199	Dec. 1	302	74	57	1191
MacCormack, William W. (See MacCormack and Van Zile, assignors.)						
MacDonald, Charles A., assignor to Hercules Iron Works, Chicago, Ill. Condenser for gas-pumps	444,385	Jan. 6	628	162	54	124
MacKay, William, assignor to J. Bien & Co., New York, N. Y. Bed for metallic printing-plates	456,502	July 21	1909	505	56	381
MacKellar, Smiths & Jordan Company. (See MacKellar, Thomas, assignor.)						
MacKellar, Smiths & Jordan Company. (See Ziegler, George H., assignor.)						
MacKellar, Thomas, assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Metallic alloy	463,427	Nov. 17	1927	-----	57	941
MacKenzie, George W., Van Port, assignor to W. H. Williams, Pittsburg, Pa., and A. L. Averill, Charleston, S. C. Street-advertising apparatus	458,474	Aug. 25	2530	616	56	1033
MacLaughlan, John R., assignor to S. Miller, Philadelphia, Pa. Secondary-battery plate	455,968	July 14	1076	281	56	213
MacLean, Edward P., Boston, Mass. Apparatus for cutting, sharpening, and polishing tools	451,509	May 5	99	24	55	598
MacLearn, John P., assignor to W. W. Hess, Philadelphia, Pa. Machine for compressing tablets from powders	461,683	Oct. 20	1853	460	57	369
Mac Mullen, Dickson D. (See Phelps, Lucius J., assignor.)						
MacPherson, Duncan, Montreal, Canada. Safety switch-frog	465,531	Dec. 22	2447	623	57	1629
Macallan, George. (See Adams and Macallan.)						
Macbeth, Norman. (See Jackson and Macbeth.)						
Macdonald, Ranald, Brooklyn, N. Y. Movable submarine battery	458,473	Aug. 25	2528	615	56	1032
Macdonald, Thomas J. A., Detroit, Mich., assignor, by mesne assignments, to Carter & Company, Limited, Niagara Falls, N. Y. Numbering-machine	450,783	Apr. 21	1756	{ 426 427 }	55	358
Macdonough, James, New York, N. Y. Distinctive paper	447,336	Mar. 3	91	25	54	1135
Mace, Frank F., Sioux City, Iowa. Corn-planter	452,411	May 19	1571	390	55	888
Mace, Harvey A., assignor of one-half to D. Blalock, Mount Zion, Ill. Flood-fence	448,154	Mar. 10	1425	364	54	1398
Mace, Thomas C., De Kalb county, Mo. Latch	462,981	Nov. 10	1213	316	57	794
Macfarlane, James S., Chaplin, Conn. Indicator for spinning or winding machines	454,957	June 30	2765	704	55	1701
Macfarlane, James S., Chaplin, Conn. Thread-tension device for spinning-frames	459,947	Sept. 22	2224	558	56	1517
Machalup, Adolph, Leipsic, Germany, assignor of one-half to L. Machalup and C. S. Geiner, Toledo, Ohio. Street-railway switch	458,790	Sept. 1	362	88	56	1135
Machalup, Leopold, et al. (See Machalup, Adolph, assignor.)						
Machen, Ferdinand H., Toledo, Ohio. Fastener for fence-wires	462,443	Nov. 3	358	88	57	619
Machin, Miller, assignor of one-half to F. S. Adams, Bowen, Ill. Hay-stacker	447,250	Feb. 24	2886	716	54	1098
Machlet, George, Jr. (See Reichhelm and Machlet.)						
Mack, Albert G., Rochester, N. Y., assignor of one-half to C. E. Felton, Chicago, Ill. Fish-hook	454,580	June 23	2114	545	55	1574
Mack, Albert G., Rochester, N. Y., assignor of one-half to C. E. Felton, Chicago, Ill. Fish-hook	454,581	June 23	2115	545	55	1574
Mack, Albert G., Rochester, N. Y., assignor of one-half to C. E. Felton, Chicago, Ill. Fish-hook	454,982	June 30	2816	717	55	1712
Mack, William A., Norwalk, Ohio, assignor to Standard Sewing Machine Company, of Ohio. Feeding mechanism for sewing-machines	447,251	Feb. 24	2887	717	54	1098
Mack, William A., Norwalk, Ohio, assignor to Standard Sewing Machine Company, of Ohio. Presser-foot for sewing-machines	447,252	Feb. 24	2889	717	54	1099
Mack, William A., Norwalk, Ohio, assignor to Standard Sewing Machine Company, of Ohio. Shuttle-actuating mechanism for sewing-machines	447,253	Feb. 24	2890	717	54	1099
Mack, William B., Boston, Mass. Injector	457,514	Aug. 11	976	249	56	722
Mack, William B., Boston, Mass. Injector	457,515	Aug. 11	977	250	56	722
Mackay, James T., assignor of one-half to J. A. Scott, St. Louis, Mo. Flue-cleaner	449,080	Mar. 24	2920	741	54	1701
Mackay, William M., Newark, N. J. Valve for supplying hot-water radiators and for other purposes	452,453	May 19	1638	410	55	901
Mackay, William M., Newark, N. J., assignor to D. S. Richardson, Brooklyn, N. Y. Steam-boiler	453,701	June 9	829	210	55	1312
Mackenzie-Hughes, Edward W., Chicago, Ill., assignor to himself, and E. N. Dickerson, New York, N. Y. Die for forming journal-boxes	451,052	Apr. 28	1828	540	55	448
Mackenzie-Hughes, Edward W., assignor to Fox Solid Pressed Steel Company, Chicago, Ill. Locomotive-tender truck	461,436	Oct. 20	1404	354	57	286
Mackenzie, James A., Minneapolis, Minn. Stringed musical instrument	461,915	Oct. 27	2239	{ 553 554 }	57	451
Mackey, George H., Milan, assignor of one-half to W. A. Galpin, Cleveland, Ohio. Harrow	448,446	Mar. 17	1936	488	54	1505
Mackey, Isaac, Hollansburg, Ohio. Meat and vegetable slicer	459,125	Sept. 8	917	121	56	1251
Mackie, Alexander, London, England. Bottle and stopper	456,420	July 21	1781	471	56	356
Mackie, Charles, Chicago, Ill. Card for buttons	465,793	Dec. 22	2841	728	57	1706
Mackintire, James, Sheffield, England. Composition for use in the manufacture of steel	449,547	Mar. 31	3703	-----	54	1854
Mackintosh, Edward D., Brooklyn, assignor to P. Frybil, New York, N. Y. Bearing-box	465,673	Dec. 22	2672	681	57	1672
MacLachlan, John W., Brooklyn, assignor to G. W. Garner, New York, N. Y. Machine for cutting index-books	464,438	Dec. 1	661	{ 162 163 }	57	1261
Maclean, Charles W., Melbourne, Victoria. Hoisting device	465,869	Dec. 29	2969	758	57	1739
Macloskie, Charles H. (See Baker and Macloskie.)						
Macloskie, Charles H., and W. E. Baker, Boston, Mass. Trolley-wire hanger	446,985	Feb. 24	2415	601	54	1009
Macmeikan, John A., Great Missenden, England. Inkstand	454,173	June 16	1490	391	55	1448
Macmillan, Everett B., Chicago, Ill. Railway-car	459,896	Sept. 22	2150	541	56	1504
Macmillan, William, New York, N. Y. Galvanic battery	454,057	June 16	1316	343	55	1415
Macnarey, John, assignor to G. Bentley and J. B. Jackson, Bury, England. Cylinder or drum for paper-making	455,222	June 30	3233	821	55	1793
Macneil, D. A., et al. (See Ritter, Andrew J., assignor.)						
Macomber, Clarence R., Worcester, Mass. Leggin	448,819	Mar. 24	2526	633	54	1625
Macomber, Clarence R., and E. V. Scribner, Worcester, Mass. Chemical eraser	464,509	Dec. 8	776	190	57	1293

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Macphail, James, Rockford, Ill. Harrow	445,587	Feb. 3	110	27	54	532
Macphail, James, Rockford, Ill. Ferrule	445,596	Feb. 3	120	30	54	534
Macphail, James, Rockford, Ill. Harvester	451,943	May 12	773	{ 195 196 }	55	732
Macphail, James, Rockford, Ill. assignor to McCormick Harvesting Machine Company. Sheaf-carrier	447,468	Mar. 3	339	85	54	1181
Macrae, James A., Regina, Canada. Breast-strap slide	460,442	Sept. 29	2967	742	56	1666
Macrae, Roderick, assignor to Donaldson-Macrae Electric Company, Baltimore, Md. Trolley	451,211	Apr. 28	2446	604	55	498
Macrae, Roderick, assignor to Donaldson-Macrae Electric Company, Baltimore, Md. Automatic switch for electric motors	453,287	June 2	165	46	55	1179
Macy, George E., Orlando, Fla. Vehicle-reach coupling	458,058	Aug. 18	1851	482	56	898
Macy, Lewis J., Pulaski, N. Y. Aerator	447,573	Mar. 3	498	122	54	1210
Macy, Samuel H., New Providence, Iowa. Device for unwinding barbed wire	461,118	Oct. 13	873	225	57	175
Madden, Albert F., Newark, N. J. Machine for casting grids	460,933	Oct. 6	614	{ 156 157 158 }	57	119
Madden, Albert F., Newark, N. J., assignor, by mesne assignments, to J. M. Pendleton, New Brighton, N. Y. Machine for molding separator-plugs for battery elements	446,873	Feb. 24	2225	{ 553 554 555 }	54	975
Madden, Albert F., Newark, N. J., assignor to J. M. Pendleton, New Brighton, N. Y. Machine for casting grids for secondary batteries	457,879	Aug. 18	1561	{ 405 406 }	56	843
Madden, Albert F., Newark, N. J., assignor to J. M. Pendleton, New Brighton, N. Y. Plate for secondary batteries	457,880	Aug. 18	1567	406	56	844
Madden, Mark P., Coronado Beach, Cal. Device for tapping mains	459,638	Sept. 15	1748	439	56	1419
Madden, Mark P., Coronado, Cal. Device for tapping mains	463,524	Nov. 17	2055	538	57	966
Madden, William A., Madera, Cal. Lumber-clamp	458,763	Sept. 1	323	79	56	1127
Maddock, William H., Pittsburg, assignor to Wheatland Iron Company, Wheatland, Pa. Hydraulic motor	461,082	Oct. 13	830	{ 213 214 }	57	167
Maddox, Joshua P., Westbrook, Me. Woven fabric for machine-beltting	459,082	Sept. 8	837	203	56	1234
Maddox, William J., Jamestown, N. Y. Sandpapering, rubbing, and polishing machine	448,721	Mar. 24	2381	597	54	1597
Maddix, Francis T., Crisfield, Md. Oyster-tongs	448,059	Mar. 10	1292	330	54	1370
Maddy, William A., Pomeroy, Ohio. Thill-coupling	453,428	June 2	405	105	55	1223
Madel, Wilhelm, Nienkerk, Germany. Alarm-clock	460,751	Oct. 6	350	86	57	69
Madeley, Richard, <i>et al.</i> (See Swinglehurst, Harry, assignor.)						
Mader, George, and H. R. Heinz; said Mader assignor to R. Hensler, Newark, N. J. Device for grinding spice	455,818	July 14	860	225	56	173
Madgin, Frank. (See Hutchinson and Madgin.)						
Madlener, Fridolin, Chicago, Ill. Apparatus for treating whisky	444,152	Jan. 6	284	68	54	58
Madsen, Christian, Chicago, Ill. Bridge-gate	453,244	June 2	101	28	55	1167
Madsen, Soren C., Sleepy Eye Lake, Minn. Photographic copying apparatus	448,447	Mar. 17	1937	488	54	1505
Madsen, Soren C., Sleepy Eye, Minn. Producing marbled surfaces	458,764	Sept. 1	324	56	1127	
Magee, James C., Philadelphia, Pa. Beer-pump	452,609	May 19	1885	474	55	946
Magee, John R., East Orange, N. J. Sewer-trap	458,589	Sept. 1	65	14	56	1078
Magee, R. A. (See McCormick, James F., assignor.)						
Magee, Richard N., Golden, Tex. Device for jointing and setting saws	463,735	Nov. 24	2426	636	57	1044
Magee, William J., Groveton, Tex. Churn-power	452,846	May 26	2261	567	55	1028
Magee, William L., Bethany, Mo. Watering-trough for stock	450,170	Apr. 14	768	195	55	156
Mager, Heinrich, Berlin, Germany. Device for the automatic rotation of tools	456,152	July 21	1341	356	56	274
Mager, John, Milwaukee, Wis. Device for sulphuring casks	459,916	Sept. 22	2183	549	56	1509
Magerhans, Adolph W., New York, N. Y. Bracelet	447,692	Mar. 3	668	166	54	1245
Magill, Zeph. F. (See Moore, John W., assignor.)						
Magney, Joseph P., Oakland, Cal. Sash-balance	458,033	Aug. 18	1815	473	56	891
Magney, Joseph P., assignor of one-half to H. A. Davis and D. Wilson, Oakland, Cal. Sash-balance	445,376	Jan. 27	2220	576	54	459
Magnolia Anti-Friction Metal Company. (See Singley, Samuel, assignor.)						
Magnuson, John F., New York, N. Y. Spokeshave	452,498	May 19	1715	431	55	913
Magnusson, Gust, Jamestown, N. Y. Extension-table	451,597	May 5	229	55	55	623
Magnusson, Howard C., Chicago, Ill. Artificial head for dentists' use	451,061	Apr. 28	2196	543	55	450
Magoffin, William H., <i>et al.</i> (See Jefferis, Richard W., assignor.)						
Magoffin, William H. (See Oetlinger, William, assignor.)						
Magoris, Anthony E., Binghamton, N. Y. Powder-blower	465,484	Dec. 22	2358	604	57	1619
Magruder, R. L. (See Capehart, Baldy A., assignor.)						
Maguire, John O., Milwaukee, Wis. Steam-boiler	444,959	Jan. 20	1598	408	54	327
Mahana, John B., Freewater, Ore. Locomotive	461,483	Oct. 20	1536	376	57	304
Mahana, John B., Freewater, Ore. Car for single-rail railways	461,763	Oct. 20	1984	491	57	394
Mahana, John B., Freewater, Ore. Elevated railway	461,764	Oct. 20	1987	491	57	394
Mahana, John B., Freewater, Ore. Method of and apparatus for the propulsion of trains	464,342	Dec. 1	527	128	57	1230
Mahana, Matthew H., <i>et al.</i> (See Nesmith, Robert H., assignor.)						
Mahannah, Frank, assignor of one-half to J. E. Mahannah, Omaha, Nobr. Money-drawer	465,184	Dec. 15	1877	476	57	1513
Mahannah, John E. (See Mahannah, Frank, assignor.)						
Maher, Edward A., <i>et al.</i> (See Murray, Thomas E., assignor.)						
Maher, James J. E., New York, N. Y. Obstetrical forceps	466,173	Dec. 29	3481	889	57	1839
Mahin, John L., Muscatine, Iowa. Newspaper-file rack	459,011	Sept. 8	721	177	56	1214
Mable, Clemence A., Coty, Pa. Toy	451,369	June 16	1778	463	55	1503
Mahler, Louis P., New York, N. Y. Brush	445,005	Jan. 20	1660	425	54	340
Mahoney, James T., Philadelphia, Pa. Registering money-box	458,400	Aug. 25	2420	589	56	1012
Mahoney, William, Santa Cruz, Cal. Safety-cap for powder-kegs	456,494	July 21	1897	501	56	378
Mahony, James, New York, N. Y. Steam-boiler	456,365	July 21	1684	443	56	339
Mahoudeau, Marie F. E. B., Paris, France. Extracting sugar from molasses	452,454	May 19	1640	55	901	
Maigne, Oscar J., <i>et al.</i> , executors. (See Reilly, Dennis J.)						
Maignen, Prosper A., London, England. Filter	460,378	Sept. 29	2885	{ 720 721 }	56	1650
Maigrot, Elias, and J. Sabates, Havana, Cuba. Apparatus for the defecation of saccharine juices by electricity in the manufacture of sugar	455,631	July 7	537	{ 140 141 }	56	104
Mailor, Andrew C. (See Proctor and Mailor.)						
Maillet, Alexander, New York, N. Y. Spice-mill	459,854	Sept. 22	2077	522	56	1490
Maillox, Cyprien O., New York, N. Y. Electric-car motor	457,357	Aug. 11	729	{ 186 187 }	56	674
Maillox, Cyprien O., New York, N. Y. Brush-holder for dynamo-electric machines or motors	457,358	Aug. 11	733	187	56	675
Maillox, Cyprien O., New York, N. Y. Friction-gear for electric-car motors	457,359	Aug. 11	736	188	56	676
Mails, John J. (See Harrold and Mails.)						
Main, Charles T. (See Seymour, Louis I., assignor.)						
Main, Fred F., South New Lyme, Ohio. Rail-fastener and chair for the same	458,475	Aug. 25	2533	617	56	1034

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Main, William, Brooklyn, N. Y. Commutator-brush.....	447,469	Mar. 3	341	85, 86	54	1182
Maive Electrical Improvement Company. (See Fay, Thomas J., assignor.)						
Mains, Charles. (See Spain, Job, assignor.)						
Mains, John F., assignor of three-fourths to B. Carr, H. M. La Follette, and E. J. Robison, Indianapolis, Ind. Mail-sack dropper.....	447,470	Mar. 3	346	86	54	1183
Mains, John F., assignor of three-fourths to B. Carr, H. M. La Follette, and E. J. Robison, Indianapolis, Ind. Mail-sack crane.....	447,471	Mar. 3	347	86	54	1183
Mains, John F., assignor of three-fourths to B. Carr, H. M. La Follette, and E. I. Robison, Indianapolis, Ind. Fuel-gas burner.....	461,886	Oct. 27	2187	539	57	442
Mains, John F., Indianapolis, Ind., assignor to Mains Patent Mail Catcher and Deliverer Company. Sack-holder for mail-sack cranes.....	463,158	Nov. 17	1494	387	57	857
Mains, John F., Indianapolis, Ind., assignor to Mains Patent Mail Catcher and Deliverer Company. Mail-sack crane.....	463,159	Nov. 17	1495	388	57	857
Mains, Michael G., Oberlin, Ohio. Tack-driving machine.....	450,927	Apr. 7	564	141	55	109
Mains Patent Mail Catcher and Deliverer Company. (See Mains, John F., assignor.)						
Mair, John, <i>et al.</i> (See Warburton, Edward A., assignor.)						
Majors, George S., Harwood, Mo. Wagon end-gate.....	460,052	Sept. 22	2377	594	56	1545
Makely, Metrah, New Berne, N. C. Fire-escape.....	457,285	Aug. 4	566	150	56	638
Malandin, Leon. (See Delamar-Deboutville and Malandin.)						
Malcoly, Mike. (See Lee, Patrick, assignor.)						
Malevez, Melchior, Brussels, Belgium, assignor to Messieurs Pilkington Brothers, St. Helens, England. Apparatus for grinding, smoothing, and polishing glass.....	449,686	Apr. 7	57	14	55	13
Malfait, Frederic, Paris, France. Velocipede.....	456,625	July 28	2120	500	56	429
Malhiet, Samuel M., and C. A. Lejeune, Albemarle, La. Steam-pressure regulator for cane-mills.....	445,556	Feb. 3	569	139	54	623
				{ 126 127 }	{ 56 56 }	{ 94 94 }
Malin, Alexander F. P., Kappel, Germany. Forging-machine.....	455,598	July 7	486			
Malings, Charles, Chicago, Ill., assignor, by mesne assignments, to American Patents Company, Philadelphia, Pa. Tennis-racket.....	455,632	July 7	540	141	56	105
Malings, Thomas, Chicago, Ill. Saw-handle attachment.....	462,982	Nov. 10	1215	316	57	795
Mallard, William S., Darien, Ga. Station or street indicator.....	447,617	Mar. 3	565	{ 139 140 }	{ 54 54 }	{ 1224 1224 }
Mallebre, Henry, New York, N. Y. Pedal for pianos.....	446,710	Feb. 17	1958	488	54	912
Mallebre, Henry, New York, N. Y. Muffling attachment for piano-fortes.....	448,448	Mar. 17	1939	488	54	1505
Mallinson, Charles, Liverpool, England. Apparatus for conditioning or drying grain.....	451,306	Apr. 28	2599	641	55	528
Mallon, James, New Orleans, La. Subsoil-plow.....	453,887	June 9	1086	284	55	1362
Mallon, James, assignor to Birdsall Manufacturing Company, South Bend, Ind. Wagon-axle.....	466,307	Dec. 29	3693	942	57	1878
Mallon, Peter L. (See Westwood and Mallon.)						
Mallonee, Joseph D., Brooklyn, N. Y., assignor to J. M. Glover, St. Louis, Mo. Time-stamp.....	462,212	Oct. 27	2699	679	57	538
Mallory, James L., <i>et al.</i> (See Hill, Edward A., assignor.)						
Malm, Alexander, New York, assignor to T. W. Sheridan, Brooklyn, N. Y., and C. B. Sheridan, Orange, N. J. Paper-cutter.....	446,359	Feb. 10	1407	{ 344 345 }	{ 54 54 }	{ 791 791 }
Malm, Alexander, assignor to T. W. & C. B. Sheridan, New York, N. Y. Paper-enteng machine.....	451,333	Apr. 28	2638	652	55	536
Malmberg, Ernst R. (See Martindale and Malmberg.)						
Malmgren, Charles O. (See Dyer and Malmgren.)						
Malmström, Karl K., Westminster, England. Percussion-fuse.....	451,598	May 5	220	55	55	623
Malo, Jean, Montreal, Canada. Swimming-machine.....	466,007	Dec. 29	3225	822	57	1787
Malone, Albert H., Chatham, Ill. Gate.....	464,575	Dec. 8	871	214	57	1311
Malone, James, assignor of two-thirds to J. W. Graham, Louisville, and W. C. Payne, Maysville, Ky. Safety-envelope.....	463,906	Nov. 24	2686	699	57	1093
Maloney, Andrew J., Providence, R. I. Month-piece for cigars or pipes.....	461,267	Oct. 13	1119	286	57	223
Maloney, Harry G., Boston, Mass. Fog-signal.....	464,375	Dec. 1	577	141	57	1243
Maloney, Thomas J., Jersey City, N. J. Tobacco-package and wrapper for the same.....	452,109	May 12	1075	272	55	784
Maloney, Thomas J., Jersey City, N. J. Tobacco-package.....	453,264	June 2	133	36	55	1173
Malsch, Andreas, Munich, Germany. Grinding-mill.....	445,227	Jan. 27	2013	518	54	417
Malsch, Frank, Philadelphia, Pa. Circular-knitting machine.....	465,938	Dec. 29	3082	791	57	1762
Maltby, Philo, Cleveland, Ohio. Reversing-valve for steam-engines.....	452,455	May 19	1641	410	55	901
Maltby, Theodore G., St. Petersburg, Fla. Fruit-clipping shears.....	459,409	Sept. 15	1369	343	56	1348
Mambourgh, Leopold, <i>et al.</i> (See Houze, Luke, assignor.)						
Manahan, Thaddeus A., Young, Tex. Fumigator for grain-bins.....	457,652	Aug. 11	1177	302	56	761
Manchester, Albert E., and J. C. Miller, Dubuque, Iowa. Car-brake adjuster.....	463,907	Nov. 24	2688	699	57	1093
Mandt, Adolf, New York, N. Y. Button.....	447,782	Mar. 10	827	206	54	1281
Mandel, Moses, Chicago, Ill. Fly-poison support.....	463,636	Nov. 24	2269	597	57	1015
Mandeville, John E., Hawley, Pa. Railway-rail.....	451,563	May 5	178	43	55	614
Mandl, Leopold, Buda-Pesth, Austria-Hungary. Process of mashing.....	461,684	Oct. 20	1855	460	57	369
Mandt, Targe G. (See Johnson and Mandt.)						
Mandt, Targe G., Stoughton, Wis. Combined end-gate and shoveling-board.....	459,156	Sept. 8	963	234	56	1260
Mandt, Targe G., Stoughton, Wis. Running-gear for vehicles.....	459,157	Sept. 8	964	234	56	1260
Mangan, Thomas, Carthage, assignor of one-half to W. W. Pease, Elmwood Place, Ohio. Stereotype backing powder or filling.....	453,343	June 2	256		55	1197
Mangan, Thomas, and J. P. Buckley, New Orleans, La.; said Buckley assignor to said Mangan. Fare-box.....	457,545	Aug. 11	1021	{ 262 263 }	{ 56 56 }	{ 731 731 }
Mangels, William, New York, N. Y. Roundabout.....	452,227	May 12	1264	319	55	821
Mangum, Daniel D., Danbury, Conn. Journal-bearing.....	452,646	May 19	1945	488	55	958
Manhattan Brass Company. (See Hipwell, Thomas, assignor.)						
Manhattan Brass Company. (See White, James H., assignor.)						
Manhattan Watch Company. (See Kuhn, Edmond, assignor.)						
Manhes, Pierre, Lyons, France. Treating copper matte.....	456,516	July 21	1936	511	56	386
Manifold Notion Company. (See Jordan, Louis, assignor.)						
Mankey, William H., and O. D. Eastman, Cuba City, Wis. Valve for musical instruments.....	462,148	Oct. 27	2595	646	57	519
Manko, Henry B., and J. W. Paine, Baltimore, Md. Cash register and indicator.....	450,416	Apr. 14	1176	{ 287 288 }	{ 55 55 }	{ 231 231 }
Manlove, Emery, Bentonville, Ind. Fence.....	454,600	June 23	2162	558	55	1582
Mann, Abram S., Rochester, N. Y. Suspenders.....	455,409	July 7	182	47	56	38
Mann, Edwin B. (See Weller and Mann.)						
Mann, Frederick C., East Bridgewater, Mass., and B. Andrews, New Orleans, La. Cotton-seed-linting machine.....	457,969	Aug. 18	1723	452	56	874
Mann, James F. (See Leary, Michael, assignor.)						
Manners, Stephen H., North Melbourne, Victoria. Buckle.....	460,379	Sept. 29	2887	721	56	1651
Maunessmann, Reinhard, Kemscheid, Germany. Tubular body and constructing the same.....	464,978	Dec. 15	1502	377	57	1442

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Manning, Charles E., New York, N. Y. Separator for steam	445,472	Jan. 27	2357	612	54	485
Manning, Franklin, West Point, Nebr. Wire gate.....	450,171	Apr. 14	769	195	55	156
Manning, Hamilton O. (See Clough and Manning.)						
Manning, Henry C., Bristol, R. I. Game-board	458,401	Aug. 25	2421	590	56	1013
Manning, William W., <i>et al.</i> (See Wenström, Jonas, assignor.)						
Mannock, Thomas. (See Smith, Goddard, Higginbottom, and Mannock.)						
Manny, Walter B., assignor of one-half to J. Swope, St. Louis, Mo. Elastic heel for boots or shoes	451,200	Apr. 28	2432	601	55	495
Mansfield, Albert K., Salem, Ohio. Solid end connecting-rod	453,015	May 26	2540	642	55	1082
Mansfield, Charles W., Homestead, Pa. Broom	463,448	Nov. 17	1952	509	57	946
Mansfield, Frank, New York, N. Y. Electric switch for electric railways	450,172	Apr. 14	770	195	55	156
Mansfield, Frank, New York, N. Y. Electric switch for electric railways	450,173	Apr. 14	772	196	55	157
Mansfield, Frank, New York, N. Y. Electric railway.....	461,685	Oct. 20	1857	460	57	369
Mansfield, Frank, and C. W. Wason, Cleveland, Ohio. Lightning-arrester	455,223	June 30	3234	823	55	1793
Manson, George T., Brooklyn, N. Y. Joint for electric conductors	457,865	Aug. 18	1534	398	56	838
Mansur & Tibbetts Implement Company. (See Waterman, Lewis E., assignor.)						
Mantey, Richard, Jamestown, N. D. Drenching-bottle	462,056	Oct. 27	2450	606	57	491
Mantion, Joseph H. (See Millen, Casey, and Mantion.)						
Manton, Joseph P., Jr., Providence, R. I. Cash and sales register.....	449,164	Mar. 31	3055	773	54	1735
Manuel, Alfred. (See Hibbert and Manuel.)						
Manuel, Fred, and K. M. Reeves, Helena, Mont. Ore-concentrator	452,676	May 19	1989	498	55	966
Manufacturers' Automatic Sprinkler Company. (See Pierce, Marsh C., assignor.)						
Manville, Charles B., Milwaukee, Wis. Pipe-covering	465,701	Dec. 22	2709	691	57	1680
Manville, Frank B., assignor to Blake & Johnson, Waterbury, Conn. Machine for turning keys for gas-cocks	451,134	Apr. 28	2403	594	55	489
Manville, Robert C., Waterbury, Conn. Double-action press	460,322	Sept. 29	2799	697	56	1634
Manwaring, Morris B. and G. N. Vanderhoef, Bayonne, N. J., assignor, by mesne assignments, to F. Beltz, trustee, New York, N. Y. Filter	456,119	July 14	1286	338	56	254
Manweiler, Jacob W., <i>et al.</i> (See Kimmel, Joseph, assignor.)						
Many, Frank B., and F. J. Harrison, Cleveland, Ohio. Can-filling apparatus	450,467	Apr. 14	1247	305	55	244
Mapel, Elijah T., Alameda, Cal. Apparatus for delivering clay to sewer-pipe presses	446,530	Feb. 17	1691	414	54	860
Mapelsden, Reuben. (See Nicholson, Francis T., assignor.)						
Mapes, Brainerd W., <i>et al.</i> (See Lee, John H., assignor.)						
Mapes, Marion J., Bath-on-the-Hudson, N. Y. Rotary steam-engine	464,162	Dec. 1	231	56, 57	57	1179
Marak, Francis, Jr., Everest, Kans. Radiator	451,944	May 12	774	196	55	732
Maranville, Fred. C. (See Young and Maranville.)						
Marau, Albert W., Berlin, Germany. Siphon intermittent device	449,267	Mar. 31	3218	812	54	1765
Marbach, Herman L., Cleveland, Ohio. Combined container and grinder	449,225	Mar. 31	3152	795	54	1753
Marbeau, Henry, Paris, France, assignor, by mesne assignments, to Nickel Steel Syndicate, Limited, London, England. Alloy and producing it	457,205	Aug. 4	429	.....	56	613
Marble, Lansing, Gladstone, Mich. Patched bullet	463,440	Nov. 24	2573	670	57	1073
Marble, Lewis L., <i>et al.</i> (See Montgomery, James P., assignor.)						
Marble, Webster L., Gladstone, Mich. Adjustable gun-sight	450,468	Apr. 14	1248	305	55	244
Marble, Webster L., Gladstone, Mich. Gun-sight	450,469	Apr. 14	1249	305	55	244
Marble, Webster L., Gladstone, Mich. Front sight for fire-arms	451,499	May 5	88	22	55	596
Marceau, Alfred, Springfield, Mass. Nail	464,744	Dec. 8	1146	284	57	1362
Marcell, Frederick A., Ottawa, Kans. Sash-fastener	457,615	Aug. 11	1153	289	56	753
Marcey, Alvin B. (See Smith and Marcey.)						
March, Alfred. (See Crawford, Frank, assignor.)						
March-Brownback Stove Company. (See Brownback, James, assignor.)						
Marchand & Sandoz. (See Sandoz-Barbier, Paul, assignor.)						
Marcher, Frank A., <i>et al.</i> (See Waterbury and Rankin, assignors.)						
Marchildon, Emile A., <i>et al.</i> (See Duplessis, Elouid, assignor.)						
Marco, John M., Philadelphia, Pa. Lingo for looms	461,638	Oct. 20	1785	440	57	355
Marco, John M., Philadelphia, Pa. Lingo or heddle-weight for looms	461,639	Oct. 20	1786	440	57	355
Marco, Joseph J., Harlan, Iowa. Wagon end-gate	459,194	Sept. 8	1021	249	56	1270
Marcus, William N., Philadelphia, Pa. Auxiliary mouth-piece for telephones	450,358	Apr. 14	1076	264	55	213
Marens, William N., Philadelphia, Pa. Receiving-telephone support	450,359	Apr. 14	1076	265	55	213
Marcy, Alexander, Clinton, Ontario, Canada. Transposing key-board	461,616	Oct. 20	1747	430	57	349
Marcey, Frank M., Worcester, Mass. Spool	455,224	June 30	3236	822	55	1794
Marden, George C., Winthrop, Mass. Steam-boiler and furnace	458,118	Aug. 18	1937	504	56	916
Maret, James. (See Adams and Maret.)						
Maret, James, Mount Vernon, Ky. Telegraph-sounder	463,428	Nov. 17	1928	503	57	941
Margason, Homer R. (See Goodnow and Margason.)						
Mariner, Abbott L., West Medford, assignor, by mesne assignments, to Pope Manufacturing Company, Boston, Mass. Type-writing machine	457,088	Aug. 4	246	64	56	580
Mark, Charles W., New York, N. Y. Illuminating-tile	456,045	July 14	1188	312	56	234
Mark, Charles W., New York, N. Y. Illuminating-tile	456,046	July 14	1189	313	56	234
Mark, John T., Strawn, assignor of one-half to F. Bucher, Hartford, Kans. Churn	462,568	Nov. 3	552	134	57	657
Mark, John W., New York, N. Y. Glass for light-transmitting and ventilating	458,854	Sept. 1	474	114	56	1156
Mark, Thomas F., Fremont, Nebr. Ladder	451,158	Apr. 28	2347	583	55	481
Mark, Thomas F., Fremont, Nebr. Bracket for adjustable shelving	460,782	Oct. 6	398	96	57	78
Markell, Edward, Baltimore, Md. House-door letter-box	449,371	Mar. 31	3425	861	54	1800
Markell, Edward, Baltimore, Md. House-door letter-box	449,372	Mar. 31	3426	861	54	1800
Markell, Edward, Baltimore, Md. House-door letter-box	460,783	Oct. 6	399	97	57	78
Markell, Edward, Baltimore, Md. House-door letter-box	461,208	Oct. 13	1029	261	57	203
Markham, De Witt C., Collinsville, N. Y. Band sawing-machine	448,659	Mar. 24	2278	571	54	1576
Markham, W. J., <i>et al.</i> (See Miller, David W., assignor.)						
Markillie, George H., Elvaston, Ill. Device for sharpening plowshares, &c.	456,197	July 21	1413	375	56	288
Markland, William H. (See Burrell and Markland.)						
Markle, John R., Detroit, Mich. Insulation for electric wires	460,725	Oct. 6	311	76, 77	57	61
Markley, James H., Brooklyn, N. Y. Portable dark-room	449,487	Mar. 31	3618	911	54	1838
Markley, Jonah J., Philadelphia, Pa. Sad-iron	458,402	Aug. 25	2422	590	56	1013
Markoe, John A. (See Griffin and Markoe.)						
Marks, Charles, <i>et al.</i> (See Martin, Bruno, assignor.)						
Marks, Charles, Detroit, Mich. Lap-seam gage for sewing-machines	456,198	July 21	1414	375	56	288
Marks, James, Bayonne, N. J. Wall-paper-trimming gage	454,751	June 23	2388	613	55	1626
Marks, Samuel S., <i>et al.</i> (See Martin, Bruno, assignor.)						
Marks, Solomon, Cincinnati, Ohio. Slate-frame	445,660	Feb. 3	232	62	54	557
Marks, William B., Petersburg, Va. Tobacco-drier	465,382	Dec. 15	2202	564	57	1572

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Marlatt, Abram W. (See Johnston, William, assignor.)						
Marlette, Silas T., Niagara Falls, N. Y. Horse-collar	449,488	Mar. 31	3620	911	54	1839
Marley, James D., Dodd, Tex. Marker attachment for plows	457,653	Aug. 11	1178	302	56	762
Marley, Patrick, Idaho City, Idaho, assignor of one-half to G. H. Roberts and J. H. Richards. Ore-roasting furnace	456,517	July 21	1938	511	56	387
Marley, Samuel S., Wilmington, Del. Protector for ingrowing toe-nails	465,870	Dec. 29	2971	759	57	1739
Marlin Fire-Arms Company, (See Hepburn, Lewis L., assignor.)						
Marlow, Claud E., Colorado, Tex. Bottle-case	446,132	Feb. 10	1000	246	54	714
Marraud, James L., Malden, Mass. Insulating compound	458,551	Aug. 25	2646		56	1057
Marold, John, New Decatur, Ala. Car-brake	453,910	June 9	1117	292	55	1368
Marqua, George, assignor to M. Marqua, Cincinnati, Ohio. Burial-casket	452,228	May 12	1266	319	55	822
Marqua, Magdalena. (See Marqua, George, assignor.)						
Marquis, William P., Marquette, Nebr. Animal-poke	453,197	June 2	26	8	55	1154
Marr, Benjamin W., assignor of one-half to C. C. Hanson, Lynn, Mass. Sole-edge trimmer	455,969	July 14	1077	282	56	213
Marr, John. (See Wagner, Louis, assignor.)						
Marr, Thomas, and C. W. Smith, Warrenton, Va. Drill-tooth	447,518	Mar. 3	414	101	54	1195
Marsden, James T., assignor of two-thirds to J. and J. F. Marsden, Lewiston, Me. Picker-staff check for looms	449,268	Mar. 31	3220	813	54	1766
Marsden, John, <i>et al.</i> (See Marsden, James T., assignor.)						
Marsden, Joseph P., <i>et al.</i> (See Marsden, James T., assignor.)						
Marsh, Alda, Plainfield, N. J. Gage for cutting hair	459,012	Sept. 8	721	177	56	1214
Marsh, Edward B. (See Cummings, Henry H., assignor.)						
Marsh, Frank H., Newark, N. J. Pneumatic tool	461,796	Oct. 20	2044	504	57	404
Marsh, George A., Dixfield, Me. Fruit-gatherer	457,516	Aug. 11	978	250	56	722
Marsh, James A., Cleveland, assignor to Happy Tidings Stove Company, Cuyahoga County, Ohio. Vapor-stove	454,014	June 9	1259	327 328	55	1397
Marsh, James P., Chicago, Ill. Pressure-gage	448,449	Mar. 17	1940	488	54	1506
Marsh, James P., Chicago, Ill. Air-valve for radiators	462,845	Nov. 10	998	258	57	753
Marsh, Jeremy T., and T. S. Truss, London, England. Propeller	450,417	Apr. 14	1180	288	55	232
Marsh, Joseph W. (See Conner and Marsh.)						
Marsh, Joseph W., assignor to Standard Underground Cable Company, Pittsburg, Pa. Holder for electric cables	450,589	Apr. 14	1415	348	55	279
Marsh, Joseph W., assignor to Standard Underground Cable Company, Pittsburg, Pa. Electric conductor	466,250	Dec. 29	3599	921	57	1860
Marsh, Joseph W., and H. W. Fisher, assignors to Standard Underground Cable Company, Pittsburg, Pa. Cutting-nippers	450,174	Apr. 14	774	196	55	157
Marsh, Nelson, Amherst, Mass. Calipers and dividers	449,165	Mar. 31	3058	774	54	1735
Marsh, Riverius, New Brunswick, N. J. Adjustable frame and sheath	452,867	May 26	2290	575	55	1034
Marsh, Riverius, New Brunswick, N. J. Hood for fire-places	452,868	May 26	2293	575	55	1034
Marsh, Robert H., Boston, Mass. Fender for street-railway cars	465,383	Dec. 15	2204	564 565	57	1572
Marsh, William A. (See Cutter, Solomon M., assignor.)						
Marshall, Benjamin, assignor to Marshall Improved Window Furniture Company, San Francisco, Cal. Sash-balance	454,616	June 23	2189	565	55	1586
Marshall, Charles P., Memphis, Tenn. Boiler	462,718	Nov. 10	786	205	57	711
Marshall, Edward L. (See Myers, Thomas C., assignor.)						
Marshall, George, <i>et al.</i> (See Moleworth, Francis H., assignor.)						
Marshall, Henry, Lincoln, Nebr. Wrench	444,450	Jan. 13	729	191	54	153
Marshall, Henry, Lincoln, Nebr. Railway-car	446,070	Feb. 10	917	224	54	698
Marshall, Horace D., St. Bethlehem, Tenn. Fence-post driver	464,031	Dec. 1	39	11	57	1144
Marshall Improved Window Furniture Company. (See Johnson, Axel, assignor.)						
Marshall Improved Window Furniture Company. (See Marshall, Benjamin, assignor.)						
Marshall, James, Fall River, Mass. Hat-blocking machine	453,198	June 2	27	8, 9	55	1154
Marshall, James, Leeds, England. Piston-valve for compound engines	462,149	Oct. 27	2595	646	57	519
Marshall, James P., Bowling Green, Ohio. End-gate	445,678	Feb. 3	274	72	54	566
Marshall, John S., <i>et al.</i> (See Preston, James B., assignor.)						
Marshall, John T., Metuchen, N. J., assignor to Edison Electric Light Company, New York, N. Y. Incandescent-lamp filament	461,797	Oct. 20	2047	504	57	405
Marshall, John W., assignor of two-thirds to R. B. Bolton and W. H. Marshall, Whiteborough, Tex. Ladder	462,497	Nov. 3	433	106	57	633
Marshall, Max. (See Beebe, George F., assignor.)						
Marshall, Robert E., Wilmington, Del. Air-brake	456,199	July 21	1415	376	56	288
Marshall, W. H., <i>et al.</i> (See Marshall, John W., assignor.)						
Marshall, Waldo H. (See Barnes and Marshall.)						
Marshall, William C. (See O'Donnell, James J., assignor.)						
Marshall, William H., Oxford, Miss. Artificial denture	456,626	July 28	2121	561	56	430
Marshall, William L., Chicago, Ill. Combined breakwater and beach	452,229	May 12	1267	319	55	822
Marso, John N., Joliet, Ill. Railway-switch	456,961	Aug. 4	62	15	56	545
Marsters, James F., Brooklyn, N. Y. Fishing-rod	462,822	Nov. 10	956	249	57	745
Marston, Bulow W., East Point, La. Saw-gin	453,933	June 9	1147	300	55	1375
Marston, Charles E., Dover, N. H. Boiler	445,473	Jan. 27	2358	612	54	486
Marston, Charles E., Dover, N. H. Radiator	451,830	May 5	585	144	55	691
Marston, Clarence L., <i>et al.</i> (See Cleveland, Lewis W., assignor.)						
Marston, John B., Buffalo, and J. W. Feeny, Elmira, N. Y. Wick-raiser	461,031	Oct. 13	759	194 195	57	154
Marston, John B., Buffalo, and J. W. Feeny, Elmira, N. Y. Wick-raiser attachment for lanterns	464,654	Dec. 8	996	248	57	1335
Marston, Nathaniel B., Lebanon, N. H. Floor-set	460,790	Oct. 6	408	99	57	80
Martel, Emma, San Francisco, Cal. Curtain-pole supporter	462,569	Nov. 3	553	135	57	657
Martin, Abraham, Birmingham, England. Projectile	462,570	Nov. 3	554	135	57	657
Martin, Arthur E., <i>et al.</i> (See Benefel, Harry A., assignor.)						
Martin, Benjamin B., <i>et al.</i> (See Bosworth, Martin L., assignor.)						
Martin, Benjamin F., Columbus, Ohio. Fertilizer-distributor	459,758	Sept. 22	1928	486	56	1461
Martin, Bruno, assignor of two-thirds to C. and S. S. Marks, Saginaw, Mich. Tobacco-re-sweating device	457,464	Aug. 11	894	231	56	706
Martin, Charles E., Baraboo, Wis., and J. J. Bohn, Chicago, Ill. Combined hand barrow and truck	454,174	June 16	1490	391	55	1448
Martin, Charles W., <i>et al.</i> (See Hulmes, Charles V., assignor.)						
Martin, Christian H., Sioux City, Iowa. Piano-truck	452,714	May 19	2051	515	55	979
Martin, Dennis B., New Haven, Conn. Syringe-tube sinker	447,574	Mar. 3	499	123	54	1211
Martin, Edgar, Hamper Mills, near Watford, England. Filtering machinery	453,815	June 9	997	260 261	55	1345
Martin, Edwin, and T. F. Drake, assignors to Martin Sons & Co., Huddersfield, England. Cloth shearing or cropping machine	450,028	Apr. 7	566	141	55	109

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Martin, Edwin K., assignor to Conestoga Cigar Machine Company, Lancaster, Pa. Mak- ing cigars.....	451,178	Apr. 28	2374	{ 500 501 }	{ 55 }	487
Martin, Enoch, Anson, Tex. Quilting-frame.....	449,801	Apr. 7	245	62	55	49
Martin, Frank, Cincinnati, Ohio. Finishing or sizing lathe.....	463,747	Nov. 24	2439	630	57	1046
Martin, Frank, Newark, N. J., assignor of one-half to P. V. W. Welsh and W. F. Free- man, New York, N. Y. Coin-controlled photograph apparatus.....	456,673	July 28	2196	582	56	445
Martin, Frank F., Gloucester, Mass. Snatch-block.....	462,983	Nov. 10	1215	317	57	795
Martin, Frank S., Hamburg, N. Y. Appliance for utilizing river-currents and water- falls.....	447,887	Mar. 10	1008	254	54	1316
Martin, Franklin, Philadelphia, Pa. Umbrella-fixture.....	453,934	June 9	1148	300	55	1375
Martin, George W. (See Brooke, William M., assignor.)						
Martin, George W. (See Felt, Dorr E., assignor.)						
Martin, George W. (See Felt and Martin.)						
Martin, George W., Boston, Mass. Decorating glass.....	444,797	Jan. 13	1275	330	54	257
Martin, George W., assignor of one-half to J. Knight, Somerville, Mass. Electric signal and search-light lantern.....	446,142	Feb. 10	1037	255	54	720
Martin, Howard M., Tacoma, Wash. Ax-helve fastener.....	445,730	Feb. 3	352	91	54	582
Martin, James, Temescal, Cal. Flower-holder.....	448,975	Mar. 24	2764	698	54	1670
Martin, James A., Hickory, N. C. Mail-bag lock.....	458,958	Aug. 18	1700	445	56	870
Martin, James B., Avoca, Iowa. Washing-machine.....	459,297	Sept. 8	1176	285	56	1301
Martin, James W., et al. (See Shoemaker, Milton, assignor.)						
Martin, John, et al. (See Anderson, Lee, assignor.)						
Martin, John, London, England. Perambulator.....	458,736	Sept. 1	285	70	56	1120
Martin, Joseph A., Talley Cavey, Pa. Wagon-brake.....	458,633	Sept. 1	131	29	56	1091
Martin, Louis F., Kansas City, Kansas, assignor of one-half to J. W. Crumbaugh and L. C. Prater, Kansas City, Mo. Grain-door for cars.....	452,798	May 26	2198	549	55	1014
Martin, Lucien B., Fostoria, Ohio. Paper-weight.....	444,647	Jan. 13	1040	270	54	214
Martin, Lyman C. (See Donaldson, Walter, assignor.)						
Martin, Marius and V., Paris, France. Leather-dressing machine.....	456,421	July 21	1781	471	56	356
Martin, Marshall, Walla Walla, Wash. Machine-wrench.....	456,830	July 28	2455	647	56	493
Martin, Michael B., Providence, R. I. Time-piece dial.....	460,752	Oct. 6	351	86	57	69
Martin, Michael M. (See Ward and Martin.)						
Martin, Morris, Malden, assignor to F. P. Fish, Cambridge, Mass. Electric signaling ap- paratus.....	454,973	June 30	2798	713	55	1709
Martin, Morris, Malden, assignor to F. P. Fish, Cambridge, Mass. Circuit for electric signaling.....	454,974	June 30	2804	714	55	1710
Martin, Morris, Malden, Mass., assignor to United States Electric Fire Signal Company, of Maine. Telegraphic transmitting apparatus.....	459,013	Sept. 8	722	{ 177 178 }	{ 56 }	1215
Martin, Morris, Malden, Mass., assignor, by mesne assignments, to J. F. Nielson, Eliza- beth, N. J. Automatic fire-alarm telegraph.....	464,510	Dec. 8	777	191	57	1293
Martin, Morris T., Lake Villa, assignor to W. Shakel, Chicago, Ill. Fastening for horse- blankets.....	461,958	Oct. 27	2310	573	57	465
Martin, Myron R., Humboldt, Iowa. Windmill.....	462,949	Nov. 10	1167	{ 302 303 }	{ 57 }	785
Martin, Orien B., Akron, assignor of one-half to T. Hale, Mogadore, Ohio. Belt-shifter.....	449,548	Mar. 31	3705	931	54	1855
Martin, Philip E. (See Smith, Nathaniel E., assignor.)						
Martin, Samuel M., Sidney, Ohio. Horseshoeing-rack.....	448,060	Mar. 10	1293	330	54	1371
Martin Sons & Co. (See Martin and Drake, assignors.)						
Martin, Stephen D., Jersey City, N. J. Piston-rod packing.....	453,493	June 2	501	129	55	1242
Martin, Thomas, et al. (See Hulmes, Charles V., assignor.)						
Martin, Vanburen. (See Moodie and Martin.)						
Martin, Victor. (See Martin, Marius and V.)						
Martin, William, Glenwood, Cal. Fumigator.....	463,367	Nov. 17	1833	479	57	922
Martincourt, Charles, assignor to Milwaukee Harvester Company, Milwaukee, Wis. Mower.....	453,402	June 2	343	89, 90	55	1212
Martindale, Constantine S., Hartford City, Ind. Gate.....	464,636	Dec. 8	963	238	57	1329
Martindale, Warren B. (See Shubert, Harold C., assignor.)						
Martindale, Warren B., Kenosha, Wis. Time-stamp actuated by electro-magnets.....	449,759	Apr. 7	178	44	55	36
Martindale, Warren B., Kenosha, Wis., and E. R. Malmberg, St. Louis, Mo., assignors to Electric Date and Time Stamp Company, of Illinois. Electric time-stamp.....	449,081	Mar. 24	2921	741	54	1701
Martineau, Edmund N., Holyoke, Mass. Method of and mechanism for making blank books.....	444,669	Jan. 13	1077	{ 279 280 }	{ 54 }	221
Martins, Mary L. W., New York, N. Y. Clothes-drier.....	446,260	Feb. 10	1258	306	54	760
Martius, Carl A., Berlin, Germany. Azo dye.....	456,897	July 28	2570	.....	56	512
Martius, Carl A., assignor to Actien-Gesellschaft für Anilin Fabrikation, Berlin, Germany. Making azo dyes.....	456,627	July 28	2122	.....	56	430
Martius, Carl A., assignor to Actien-Gesellschaft für Anilin Fabrikation, Berlin, Germany. Making azo dyes.....	456,628	July 28	2123	.....	56	430
Martratt, Charles E. (See Martratt, George B., assignor.)						
Martratt, George B., Troy, assignor of one half to C. E. Martratt, Albany, N. Y. Electri- cal switch.....	465,997	Dec. 29	3209	818	57	1784
Marty, Godfrey, Omaha, Nebr. Display-frame.....	448,976	Mar. 24	2765	698	54	1670
Martyn, Edward. (See Kuehnle, John, assignor.)						
Martyn, Henry L., and W. D. Lednum, Philadelphia, Pa. Preserve-jar.....	450,827	Apr. 21	1835	445	55	372
Marvel, Theodore L., assignor to W. H. Phillips, Taunton, Mass. Elevator.....	447,435	Mar. 3	260	68	54	1168
Marvin, Charles R., Deep River, Conn. Handle.....	465,939	Dec. 29	3088	791	57	1763
Marvin Electric Drill Company. (See Lipe, Charles E., assignor.)						
Marvin, John A., assignor to Marvin Truss Company, Lansing, Mich. Truss.....	458,127	Aug. 18	1951	507	56	918
Marvin Truss Company. (See Marvin, John A., assignor.)						
Marymee, William C., et al. (See Montgomery, James P., assignor.)						
Marx, Ferdinand A. C. (See Rehm and Marx.)						
Marx, Marcus. (See Drawbaugh, Daniel, assignor.)						
Masbach, Robert J., New York, N. Y. Scoop.....	447,888	Mar. 10	1010	254	54	1316
Maschino, Bernard. (See Schneider and Maschino.)						
Mascot, Louis E. (See Darby, Matthias L., assignor.)						
Maskelyne, John N. and J. N., Jr., London, England. Type-writing machine.....	457,903	Aug. 18	1601	{ 417 418 }	{ 56 }	850
Mason, Allan, Brooklyn, N. Y. Distilling oil.....	444,202	Jan. 6	363	90	54	73
Mason, Allan, Brooklyn, N. Y. Apparatus for distilling oil.....	444,203	Jan. 6	365	91	54	73
Mason, Alvin C. (See Edmonds and Mason.)						
Mason, Amor J., assignor to J. P. Mason, Norristown, Pa. Washer-punching machine.....	444,917	Jan. 20	1522	{ 391 392 }	{ 54 }	313
Mason, Benjamin F., Orange Springs, Fla. Vehicle-seat attachment.....	462,265	Nov. 3	71	17	57	565
Mason, Burr T., Phenix, N. Y. Chest-protector.....	446,531	Feb. 17	1692	414	54	861

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Mason, Chapin & Co. (See Jessup, John C., assignor.)						
Mason, Charles E., San Francisco, Cal. Lock-valve and faucet	447,962	Mar. 10	1137	286	54	1340
Mason & Co., J. S. (See Taylor, William O., assignor.)						
Mason, David, New York, N. Y. Tightening device for suspended electric conductors	444,005	Jan. 6	34	10	54	10
Mason, David, New York, N. Y. Tightening device for suspended electric conductors	444,006	Jan. 6	36	10	54	10
Mason & Davis Company. (See Edmonds, Charles J., assignor.)						
Mason & Davis Company. (See Edmonds and Mason, assignors.)						
Mason, Emily O., New York, N. Y. Window clothes-line support	457,360	Aug. 11	738	189	56	676
Mason, George W., N. Shaw, and G. H. Hopper, Ean Claire, Wis. Sawing-machine	453,598	June 2	654	168	55	1271
Mason, Harry R., Chicago, Ill. Brake-valve for air-brakes	450,332	Apr. 14	1036	255	55	205
Mason, Harry R., Chicago, Ill. Train signaling apparatus	450,333	Apr. 14	1038	255	55	205
Mason, Harry R., Chicago, Ill. Train signaling apparatus	450,334	Apr. 14	1042	256	55	206
Mason, Harry R., Chicago, Ill. Train signaling apparatus	450,335	Apr. 14	1046	257	55	207
Mason, Harry R., Chicago, Ill. Engineer's brake-valve	461,170	Oct. 13	954	246	57	190
Mason, Harry R., Chicago, Ill. Train signaling apparatus	463,063	Nov. 10	1330	344	57	818
Mason, Harry R., Chicago, Ill. Train signaling apparatus	463,064	Nov. 10	1333	344	57	819
Mason, Harry R., Chicago, Ill. Train signaling apparatus	463,065	Nov. 10	1336	345	57	820
Mason, Harry R., Chicago, Ill. Train signaling apparatus	463,066	Nov. 10	1340	347	57	820
Mason, Henry I., Cuyahoga Falls, Ohio. Friction-clutch	465,596	Dec. 22	2555	651	57	1649
Mason, James P. (See Mason, Amor J., assignor.)						
Mason, James P., Norristown, and S. L. Wiegand, Philadelphia, Pa.; said Wiegand assignor to said Mason. Method of and apparatus for making nuts and washers	444,918	Jan. 20	1525	392	54	314
Mason, Jean D., Cleveland, Ohio, assignor, by mesne assignments, to American Writing Machine Company, Hartford, Conn. Type-bar bearing	452,847	May 26	2262	567	55	1028
Mason, John, New York, N. Y. Ticket-holder	460,144	Sept. 29	2526	629	56	1581
Mason, John L., et al. (See Guillauden, Louis, assignor.)						
Mason, Lewis D., Buffalo, N. Y. Temper-screw	446,994	Feb. 24	2427	604	54	1011
Mason, Samuel, Jr., Manchester, England. Apparatus for dyeing wool	465,871	Dec. 29	2971	759	57	1739
Mason, Samuel, Jr., Manchester, and W. T. Whitehead, Radcliffe, England. Machine for dyeing and bleaching yarn	452,040	May 12	935	240	55	763
Mason, Samuel, Newark, N. J., and W. F. Mason, Brooklyn, N. Y. Door-check	465,185	Dec. 15	1879	476	57	1511
Mason, Thomas L., Crawfordsville, Ind. Opening and closing device for farm-gates	454,015	June 9	1262	328	55	1397
Mason, Willard F. (See Mason, Samuel and W. F.)						
Mason, William, assignor to Winchester Repeating Arms Company, New Haven, Conn. Magazine fire-arm	454,582	June 23	2116	546	55	1575
Mason, William, assignor to Winchester Repeating Arms Company, New Haven, Conn. Machine for reducing and finishing cartridge-shells	463,403	Nov. 17	1896	494	57	934
Mason, William C., et al. (See Ludwig, John C., assignor.)						
Mason, William P., assignor to Colby Wringer Company, Montpelier, Vt. Clothes-wringer	450,029	Apr. 7	567	141	55	110
Maseth, Benjamin. (See Black, David W., assignor.)						
Massey, Albert P., Watertown, N. Y. Terminal station for handling rapid-transit passenger traffic	459,855	Sept. 22	2078	522	56	1490
Massey, Albert P., Watertown, N. Y., assignor to Eames Vacuum Brake Company. Automatic valve for air-brakes	447,337	Mar. 3	92	26	54	1136
Massey, Albert P., Watertown, N. Y., assignor to Eames Vacuum Brake Company. Automatic air-brake	447,783	Mar. 10	828	206	54	1281
Massey, Albert P., Watertown, assignor to Eames Vacuum Brake Company, New York, N. Y. Air-brake	451,409	Apr. 28	2748	680	55	556
Massey, Gideon B., deceased, Mamaroneck, N. Y.; S. R. Massey and S. A. Bryant administrators. Ticket-printing machine	445,251	Jan. 27	2047	526	54	423
Massey, Gideon B., deceased, Mamaroneck, N. Y.; S. R. Massey and S. A. Bryant administrators. Ticket-printing machine	445,651	Feb. 3	211	56	54	554
Massey, Gideon B., deceased; S. R. Massey and S. A. Bryant, Mamaroneck, N. Y., administrators. Apparatus for printing and adding numbers	446,261	Feb. 10	1259	307	54	761
Massey, Gideon B., deceased; S. R. Massey and S. A. Bryant, Mamaroneck, N. Y., administrators. Cash-register and check machine	446,262	Feb. 10	1261	308	54	761
Massey, John, Manville, R. I. Hitching-post	458,737	Sept. 1	286	70	56	1120
Massey, Sarah R., et al., administrators. (See Massey, Gideon B.)						
Massignon, Jules, and E. Watel, Paris, France. Manufacture of chromates and hichromates	463,841	Nov. 24	2573	.....	57	1073
Massonne, George. (See Newman, Peter, assignor.)						
Mast, Peter, Waterville, Ohio. Wire fence	448,061	Mar. 10	1295	331	54	1371
Mast, Peter, Waterville, Ohio. Wire fence	449,373	Mar. 31	3427	861	54	1800
Masters, Joseph H., Chicago, Ill. Cable-grip	452,077	May 12	1019	257	55	775
Masters, Joseph H., Chicago, Ill. Cable-grip	452,078	May 12	1021	258	55	775
Masters, Miles, Sheffield, Ill. Belt-gearing	446,407	Feb. 10	1492	367	54	808
Masters, Thomas A., Chicago, Ill. Pressure-gage	464,576	Dec. 8	872	215	57	1311
Masterson, Levi J., assignor to himself and H. A. Firth, Philadelphia, Pa. Roller-skate	457,129	Aug. 4	296	77, 78	56	590
Matchett, Charles H., Brooklyn, N. Y. Cable-covering press	450,175	Apr. 14	775	196	55	157
Matchett, William C., et al. (See Paul, David S., assignor.)						
Matern, William J., Bloomington, Ill. Handle-bar for bicycles	461,356	Oct. 13	1256	320	57	252
Mather, Alexander C., Montreal, Canada. Vehicle-wheel	452,046	May 12	952	243	55	765
Mather, Alexander C., Montreal, Canada. Wheel	452,047	May 12	953	243	55	765
Mather, Allan G., Milwaukee, Wis. Grain-shoveling device	453,413	June 2	376	97	55	1218
Mather, Richard H., Windsor, Conn. Electric-arc lamp	446,108	Feb. 10	973	239	54	709
Mather, Richard H., Windsor, Conn. Arc light	446,109	Feb. 10	977	240	54	709
Mather, William T. (See Taintor and Mather.)						
Mathews, James H., Ludington, Mich. Bicycle	463,710	Nov. 24	2390	626	57	1037
Mathews, John E. (See Loy and O'Toole, assignors.)						
Mathews, Stillman E., Fullerville, N. Y. Martingale attachment for harness	444,648	Jan. 13	1041	270	54	214
Mathewson, Nathan F., assignor of one-half to J. A. Salisbury, Providence, R. I. Blind stop or pull	459,723	Sept. 15	1872	471	56	1443
Mathewson, William B. (See Houston, Charles A., assignor.)						
Mathias, David H., assignor of one-half to J. H. Simonson, Albany, N. Y. Washing-machine	457,452	Aug. 11	872	226	56	703
Mathiason, Peter B., St. Louis, Mo. Amalgamator	459,639	Sept. 15	1749	439	56	1419
Mathis, Ellis, Glasford, Ill. Horseshoe	458,181	Aug. 25	2036	528	56	941

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Mathison, Joseph, Somerville, Mass. Adding and recording machine	430,814	Apr. 21	1817	{ 440 441 }	55	369
Mathison, Joseph, Somerville, Mass. Attaching buttons	457,738	Aug. 11	1328	345	56	793
Mathison, Joseph, Somerville, Mass. Button	457,970	Aug. 18	1724	452	56	874
Mathushek, Victor H., New York, N. Y. Piano-forte	447,963	Mar. 10	1139	286	54	1340
Matot, John. (See Talbot and Matot.)						
Matrix Manufacturing Company. (See Beckwith and Street, assignors.)						
Matson, German J., and J. V. Phillips, New Buffalo, Mich. Latch	447,055	Feb. 24	2538	631	54	1031
Matson, Jephtha L., Dunbarton, Wis. Box-fastener	459,126	Sept. 8	918	121	56	1251
Mattan, John, Cincinnati, Ohio. Wrench	446,143	Feb. 10	1039	255	54	720
Mattes, William F., trustee. (See Mattes and Lewis, assignors.)						
Mattes, William F., and J. F. Lewis, Scranton, Pa., assignors to W. F. Mattes, trustee, West Superior, Wis. Lubricator	456,422	July 21	1783	472	56	356
Matteson, James A., River Point, R. I. Hanger for incandescent lamps	452,799	May 26	2189	549	55	1014
Matteson, James A., River Point, R. I. Hanger for incandescent lamps	460,178	Sept. 29	2574	642	56	1591
Matteson, James A., assignor of one-third to L. B. Whitaker, River Point, R. I. Hanging and adjusting device for cords	447,889	Mar. 10	1010	255	54	1316
Matthews, Alvin G. (See Chamblin, Charles M., assignor.)						
Matthews, Edwin S., Cincinnati, Ohio. Hydraulic valve-gear	446,836	Feb. 17	2153	535	54	953
Matthews, Edwin S., Cincinnati, assignor of one-half to J. L. Haven, Avondale, Ohio. Elevator-valve controller	450,965	Apr. 21	2055	506	55	414
Matthews, Edwin S., assignor of one-half to J. L. Haven, Cincinnati, Ohio. Hydraulic valve-gear	453,980	June 9	1209	315	55	1387
Matthews, Edwin S., assignor of one-half to J. L. Haven, Cincinnati, Ohio. Elevator	455,536	July 7	380	98	56	75
Matthews, Edwin S., assignor of one-half to J. L. Haven, Cincinnati, Ohio. Hydraulic valve	465,611	Dec. 22	2577	656	57	1653
Matthews, Frank A., Providence, R. I. Electro-magnetic apparatus for operating stop-watches	450,066	Apr. 21	2056	507	55	414
Matthews, Henry A., Waterbury, Conn. Knob	449,908	Apr. 7	397	100	55	78
Matthews, Hugh W. (See Sample, Henry C., assignor.)						
Matthews, Hugh W., Chicago, Ill. Electro-therapeutic truss	459,143	Sept. 8	939	226	56	1256
Matthews, Hugh W., Chicago, Ill. Electro-therapeutic belt	459,144	Sept. 8	940	226	56	1256
Matthews, James M., London, England. Latch	464,478	Dec. 1	723	176	57	1272
Matthews, James M., Asheville, N. C., and A. E. Francis, Cleveland, Ohio. Pick	461,083	Oct. 13	832	214	57	167
Matthews, John T., Annapolis, assignor to L. M. Levering, Baltimore, Md. Adjustable mast-support for vessels	457,323	Aug. 4	639	168	56	652
Matthews, Jose, and J. Gilmer, Savannah, Ga.; said Matthews assignor to said Gilmer. House-door letter-box	447,254	Feb. 24	2891	718	54	1099
Matthews, Oscar A., <i>et al.</i> (See Kueh, Fred, assignor.)						
Matthews, Seth. (See Olds, Henry H., assignor.)						
Matthews, Thomas J. (See Hitt, Marcellus M., assignor.)						
Matthews, Wilford L., Horton, Mich. Windmill-regulator	448,531	Mar. 17	2056	514	54	1528
Matthews & Willard Manufacturing Company. (See Stevens, Frederick M., assignor.)						
Matthies, Henry W., Newark, N. J. Wall hat-rack	457,163	Aug. 4	352	90	56	600
Matthies, Henry W., Newark, N. J. Hook	458,590	Sept. 1	67	15	56	1079
Matthiessen, Franz O. (See Goubert, Auguste A., assignor.)						
Matuska, Anton, Chicago, Ill. Folding bed	451,564	May 5	179	43	55	614
Matzeliger, Jan E., deceased; G. W. Moulton, executor, Lynn, Mass., assignor, by mesne assignments, to Consolidated Hand Method Lasting Machine Company, Nashua, N. H. Lasting-machine	459,899	Sept. 22	2153	{ 541 542 543 544 }	56	1404
Matzenauer, Edward, Chicago, Ill. Fish-bite alarm	461,586	Oct. 20	1700	415	57	340
Mauborgne, Francis J., New York, N. Y. Hair-carding machine	454,175	June 16	1492	391	55	1448
Mauck, Joseph F., White Cloud, Kans. Picket-feeder for fence-making machines	449,549	Mar. 31	3706	931	54	1855
Maul, Alvin, Pine Grove, Colo. Animal-trap setter	446,921	Feb. 24	2318	576	54	991
Maulden, Doctor C., South Sulphur, Tex. Twine-cutter	461,245	Oct. 13	1091	277	57	218
Mauldin, Columbus S., Hincley, Tex. Stalk-chopper and cotton-thinner	459,640	Sept. 15	1750	440	56	1419
Maule, Francis I., Philadelphia, Pa. Strainer	444,246	Jan. 6	430	108	54	84
Maule, John A., assignor of one-half to W. R. Gordon, Lafayette, Ind. Window or door blind	465,098	Dec. 15	1731	439	57	1484
Maupin, William H. A., <i>et al.</i> (See Bond, Elijah J., assignor.)						
Maurer, Louis C., Brooklyn, N. Y. Composition for sharpening razors	448,752	Mar. 24	2435		54	1607
Maurer, Martin, St. Louis, Mo. Device for blocking off artificial-stone pavements	460,644	Oct. 6	178	46	57	37
Maurer, Martin, St. Louis, Mo. Device for rounding and smoothing the edges of artificial-stone gutters	460,645	Oct. 6	179	46	57	37
Mausser, Paul. (See Meili, Jacob, assignor.)						
Mausser, Paul, assignor to Waffenfabrik Mauser, Oberndorf-on-the-Neckar, Germany. Safety-lock for breech-bolts of guns	449,352	Mar. 31	3382	852	54	1792
Mausser, Paul, assignor to Waffenfabrik Mauser, Oberndorf, Germany. Gun-barrel	451,768	May 5	501	124	55	673
Mausser, Paul, assignor to Waffenfabrik Mauser, Oberndorf-on-the-Neckar, Germany. Cartridge-stop for magazine-guns	455,514	July 7	338	87	56	67
Mawhood, Jonathan D., assignor to Richmond City Mill Works, Richmond, Ind. Grinding-mill	453,981	June 9	1213	316	55	1388
Maxedon, Thomas V., Crawfordsville, Ind. Curtain-roller	456,200	July 21	1416	376	56	288
Maxim Gun Company. (See Maxim, Hiram S., assignor.)						
Maxim, Hiram S., London, England. Process of and apparatus for hardening ordnance	446,532	Feb. 17	1693	{ 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000	54	861
Maxim, Hiram S., London, England. Automatic gun	447,524	Mar. 3	425	104	54	1198
Maxim, Hiram S., London, England. Automatic gun	447,525	Mar. 3	429	105	54	1198
Maxim, Hiram S., London, England. Automatic gun	447,836	Mar. 10	923	{ 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000	54	1300
Maxim, Hiram S., London, England. Automatic machine-gun	447,837	Mar. 10	927	{ 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302		

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Maxim-Nordenfelt Guns and Ammunition Company. (See Nordenfelt, Thorsten, assignor.)						
Maxon, David N., Brooklyn, N. Y. Brush	453,016	May 26	2540	643	55	1082
Maxon, Dow, Cedar Creek, Wis. Tank-wagon	453,358	June 2	276	73	55	1199
Maxon, Thomas, Dayton, Ohio. Lifting-jack	451,288	Apr. 28	2576	636	55	524
Maxon, Thomas, Dayton, Ohio. Drive-chain link	454,176	June 16	1494	392	55	1449
Maxson, Charles B., Westerly, R. I. Sheet-delivery for printing-presses	458,059	Aug. 18	1852	482 483	56	898
Maxson, Charles B., Westerly, R. I., and G. P. Fenner, New London, Conn. Printing-press	457,286	Aug. 4	567	150 151	56	638
Maxstadt, Francis W., Chicago, Ill. Fuse for electric circuits	449,289	Mar. 31	3361	827	54	1772
Maxwell, Calvin L. (See Gerow, Edward S., assignor.)						
Maxwell, Charles C., Watertown, S. D. Lawn-mower attachment	448,977	Mar. 24	2766	699	54	1671
Maxwell, David E., et al. (See Lasserre, Charles H., assignor.)						
Maxwell, George A. (See Dunlap, Edward W., assignor.)						
Maxwell, James M., Pittsburg, Pa. Draw-bar for cars	450,247	Apr. 14	910	225	55	181
Maxwell, William E., Wakefield, Pa. Pole-coupling	444,247	Jan. 6	431	108	54	84
May, Gordon A., Chicago, Ill. Stretcher for carpets	444,100	Jan. 6	189	47	54	39
May, Henry H., assignor to himself, W. Gillette, and L. Hays, New Albin, Iowa. Animal-trap	444,760	Jan. 13	1230	320	54	249
May, Mayer, Paris, France. Corset-fastening	448,820	Mar. 24	2527	633	54	1625
May, S. R. (See Wouacott, John R., assignor.)						
May, William D., Philadelphia, Pa. Piston-valve	453,017	May 26	2541	643	55	1082
Mayall, William, and T. Thomasson, Mosley, England. Automatic fire-extinguishing-sprinkler and alarm	454,914	June 30	2673	685	55	1685
Mayar, Louis, London, England. Reproducing oil paintings	450,702	Apr. 21	1644		55	336
Maybaum, Henry W. (See Farrel, John H., assignor.)						
Maybaum, Levy, et al. (See Beck, Joseph, assignor.)						
Maybaum, Levy, assignor to United States Credit System Company, Newark, N. J. Means for securing against excessive losses by bad debts	465,485	Dec. 22	2359	604 605	57	1613
Mayell, Tenbroeck B., assignor of one-half to M. A. Commerford, Albany, N. Y. Vehicle-spring support	463,293	Nov. 17	1704	445	57	898
Mayer, Benjamin, Philadelphia, Pa. Bag-frame	448,139	Mar. 10	1404	358	54	1394
Mayer, Carl A. (See Mohler and Mayer.)						
Mayer, Charles G., New York, N. Y. Apparatus for cooling and lubricating the working parts of pumps	450,517	Apr. 14	1321	324 325	55	260
Mayer, Charles G., New York, N. Y. Stuffing-box	450,518	Apr. 14	1324	325	55	261
Mayer, George, Orange, N. J. Drawing-pen	448,450	Mar. 17	1940	489	54	1506
Mayer, Louis. (See Schiff and Mayer.)						
Mayer, Louis, Mankato, Minn. Bush-hammer sharpener	464,577	Dec. 8	873	215	57	1311
Mayer, Max, assignor to Zucker & Levett Chemical Company, New York, N. Y. Dynamo-electric machine or motor	461,979	Oct. 27	2339	580	57	470
Mayer, William J., Chicago, Ill. Folding bed	462,846	Nov. 10	999	258	57	753
Mayfield, Daniel D., Sullivan, Ind. Gate	444,158	Jan. 6	295	71	54	60
Maynard, Alfred H., assignor to himself and C. B. Maynard, Worcester, Mass. Tool-handle	460,544	Sept. 29	3150	787	56	1703
Maynard, Charles B. (See Maynard, Alfred H., assignor.)						
Mayo, Edward D., assignor to Barnett & Record, Minneapolis, Minn. Double-swivel grain-distributing spout	464,101	Dec. 1	142	35	57	1164
Mayo, George D. (See Mayo, William H. and G. D.)						
Mayo, George D., assignor to Sulloway Mills, Franklin, N. H. Work-transferring mechanism for knitting-machines	453,494	June 2	502	129	55	1242
Mayo, Uriah K., Boston, Mass. Vessel for holding highly-compressed gases	453,265	June 2	134	36	55	1173
Mayo, Warren S. (See Sissons and Mayo.)						
Mayo, William H. and G. D., Lynn, Mass., assignors to Sulloway Mills, Franklin, N. H. Circular-knitting machine	461,357	Oct. 13	1257	320 321	57	252
Mayo, William H. and G. D., assignors to Sulloway Mills, Franklin, N. H. Circular-knitting machine	461,358	Oct. 13	1264	321 322	57	252
Mayor, Joseph. (See Shoefelt and Mayor.)						
Mayor, Thomas, Providence, R. I., assignor to G. Draper & Sons, Hopedale, Mass. Spindle-support for spinning and twisting machines	454,282	June 16	1647	432	55	1478
Mazroll, Joseph. (See Loggie and Mazroll.)						
McAdam, Alexander J., San Francisco, Cal. Hydraulic elevator	462,955	Nov. 10	1177	305	57	787
McAdams, John, New York, N. Y. Controlling device for elevators	460,675	Oct. 6	924	57	57	46
McAllister, Frank S., Boston, Mass. Caster	465,192	Dec. 15	1888	478	57	1512
McAllister, Charles A., City Island, N. Y. Circulator for boiler-furnaces	454,140	June 16	1439	376	55	1438
McAllister & Dall. (See Shengle, John B., assignor.)						
McAlpin, James W., Savannah, Ga. Transplanting-pot	451,064	Apr. 28	2201	544	55	451
McAlpine, George S., et al. (See McAlpine, James G., assignor.)						
McAlpine, James G., assignor of three-fourths to J. G., Jr., and G. S. McAlpine, Bakersfield, Cal. Wheel	447,893	Mar. 10	1018	256	54	1318
McAlpine, Louis A. (See McAlpine, Robert, assignor.)						
McAlpine, Robert, assignor to L. A. McAlpine, Marinette, Wis. Calendar-roll leader	449,353	Mar. 31	3384	852	54	1792
McAlpine, Wiley A., assignor of one-half to J. Q. Baggett, Forest, Miss. Planter	459,551	Sept. 15	1590	398	56	1389
McArdle, John, et al. (See Wood, William G., assignor.)						
McArthur, James. (See Horn and McArthur.)						
McArthur, James, assignor to Pullman Sash Balance Company, Rochester, N. Y. Sash-balance	462,725	Nov. 10	800	209	57	714
McArthur, Warren, Chicago, Ill., assignor to Steam Gauge and Lantern Company, Syracuse, and R. E. Dietz Company, New York, N. Y. Tubular lantern	445,187	Jan. 27	1952	505	54	405
McArthur, Warren, Chicago, Ill., assignor to R. E. Dietz Company, New York, and Steam Gauge and Lantern Company, Syracuse, N. Y. Tubular lantern	465,597	Dec. 22	2557	651	57	1650
McArthur, Warren, Chicago, Ill., assignor to R. E. Dietz Company, New York, and Steam Gauge and Lantern Company, Syracuse, N. Y. Tubular lantern	465,598	Dec. 22	2558	652	57	1650
McAuley, John E., assignor of one-half to T. F. Vaughn, Chicago, Ill. Electric-arc lamp	454,443	June 16	1899	494	55	1526
McAuley, Robert G., Pittsburg, assignor of one-fourth to F. T. Wilson, Jersey Shore, Pa. Feed-water heater	459,254	Sept. 8	1109	270	56	1288
McAnslan, William. (See Jaquet and McAnslan.)						
McAvity, George, et al. (See McShane, William, assignor.)						
McAvity, John A., et al. (See McShane, William, assignor.)						
McAvity, Thomas, et al. (See McShane, William, assignor.)						
McAvry, Joseph, Odon, Ind. Weed-turner	456,053	July 14	1197	315	56	236
McBeth, William H., St. Louis, Mo. Fire-escape	449,859	Apr. 7	328	84	55	66
McBride, James, Bavington, Pa. Churn	446,263	Feb. 10	1264	310	54	761
McBride, James, Bavington, Pa. Stanchion	446,264	Feb. 10	1266	310	54	762
McBride, James, Brooklyn, N. Y. Electric condenser-regulator	456,835	July 28	2469	649	56	494
McBride, James J., Storm Lake, Iowa. Clevis	455,108	June 30	3040	772	55	1756

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McBride, John F., Chicago, Ill. Picture-frame.....	448,821	Mar. 24	2528	633	54	1625
McBride, John J., Ridgefield Park, N. J., assignor to H. I. Coe, New York, N. Y. Hatchway for elevators.....	447,196	Feb. 24	2793	690	54	1079
McBride, John J., Ridgefield Park, N. J., assignor to H. I. Coe, New York, N. Y. Hatch-door.....	462,269	Nov. 3	76	18	57	566
McBride, John J., Ridgefield Park, N. J., assignor to H. I. Coe, St. Louis, Mo. Hatch-door.....	451,947	May 12	777	197	55	733
McBride, Martin A., Woodville, Tex. Lamp-wick raiser.....	462,573	Nov. 3	560	136	57	658
McBride, Thomas, Philadelphia, Pa., and E. Fisher, Kincardine, Canada. Spectacle-bridge.....	461,364	Oct. 13	1283	325	57	256
McBride, Thomas A., Seguin, Tex. Car-coupling.....	461,035	Oct. 13	763	{ 195 196 207 208 }	{ 57 57 54 }	{ 155 155 1282 }
McBride, Thomas J., Winnipeg, Canada. Observatory-car.....	447,785	Mar. 10	832	{ 207 208 }	{ 54 }	{ 1282 }
McCabe, Edward T., assignor of two-thirds to C. H. Fleming and W. J. Loth, Richmond, Va. Detachable heating-drum for stoves.....	450,635	Apr. 21	1542	370	55	317
McCabe, Thomas W. R., assignor to F. D. Allen, Philadelphia, Pa. Hoisting block and tackle.....	462,501	Nov. 3	438	{ 107 108 }	{ 57 }	{ 634 }
McCabe, William, Pittsburg, Pa. Counter-balance for hinged covers.....	461,485	Oct. 20	1539	377	57	310
McCahey, John H. (See McDonagh, Charles, assignor.)						
McCahey, John, assignor to New England Butt Company, Providence, R. I. Wire-covering machine.....	445,598	Feb. 3	122	31, 32	54	535
McCahey, John, assignor to New England Butt Company, Providence, R. I. Wire-covering machine.....	455,970	July 14	1078	282	56	213
McCall, Ambrose K., et al. (See McCall, William W., assignor.)						
McCall, Joseph W., et al. (See McCall, William W., assignor.)						
McCall, Robert S., et al. (See McCall, William W., assignor.)						
McCall, William H. (See Milliken, George, assignor.)						
McCall, William W., assignor of three-fifths to A. K., J. W., and R. S. McCall, Kansas City, Mo. Advertisement-wagon.....	460,537	Sept. 29	3138	{ 784 785 }	{ 56 }	{ 1700 }
McCallen, Albert D., Effingham, Ill. Clothes-line.....	444,123	Jan. 6	233	56	54	48
McCallister, William M., Owensboro, Ky. Wheel-plow.....	463,535	Nov. 17	2023	548	57	971
McCallum, Brown. (See McLean, Silamon, assignor.)						
McCallum, Irving, Philadelphia, Pa. Woven fabric.....	453,288	June 2	166	47	55	1179
McCallum, Irving, Philadelphia, Pa. Woven fabric.....	453,289	June 2	168	47	55	1179
McCammon, John, East Melbourne, Victoria. Velocipede.....	465,140	Dec. 15	1810	{ 458 459 }	{ 57 }	{ 1498 }
McCandless, James W., Florence, Colo. Clothes-drier.....	459,644	Sept. 15	1755	441	56	1420
McCann, Edward. (See Hussey and McCann.)						
McCann, Walter R., and S. S. Creider, Sterling, Ill. Electric-light signal.....	447,894	Mar. 10	1019	{ 256 257 }	{ 54 }	{ 1318 }
McCann, Walter R., and S. S. Creider, Sterling, Ill. Annunciator.....	457,454	Aug. 11	877	227	56	703
McCann, William A., Jacksonville, Fla. Lock.....	448,986	Mar. 24	2777	702	54	1673
McCann, William D., San Francisco, Cal. Powder-distributor.....	462,986	Nov. 10	1220	318	57	796
McCanna, Benjamin T. (See McCanna, John F., assignor.)						
McCanna, John E., Baltimore, Md. Molding-machine.....	448,987	Mar. 24	2779	703	54	1673
McCanna, John E., Baltimore, Md. Centrifugal core-making machine.....	463,536	Nov. 17	2085	{ 548 549 }	{ 57 }	{ 971 }
McCanna, John F., assignor of one-half to B. T. McCanna, Chicago, Ill. Lubricator.....	453,372	June 2	295	78	55	1203
McCarter, Marshall J., Norristown, Pa. Gage-cock.....	445,474	Jan. 27	2359	613	54	486
McCarthy, James, Marinette, Wis. Automatic railway-switch.....	457,547	Aug. 11	1026	263	56	732
McCarthy, John I., assignor of one-half to S. E. Young, Olean, N. Y. Hammock-holder.....	448,584	Mar. 17	2134	535	54	1543
McCarthy, Laurence A., Brooklyn, N. Y. Electric-railway car.....	444,539	Jan. 13	880	228	54	183
McCarthy, Laurence A., Brooklyn, N. Y. Armature for dynamo-electric machines.....	458,236	Aug. 25	2131	{ 552 553 }	{ 56 }	{ 959 }
McCarthy, Louis, Boston, Mass. Insulator.....	449,943	Apr. 7	445	111	55	87
McCarthy, Mitchell F., assignor to United States Fire Proofing Company, Chicago, Ill. Fire-proof building.....	455,687	July 7	626	{ 165 166 }	{ 56 }	{ 122 }
McCarthy, Mitchell F., assignor to United States Fire Proofing Company, Chicago, Ill. Building appliance.....	460,213	Sept. 29	2626	656	56	1601
McCarthy, Mitchell F., assignor to United States Fire Proofing Company, Chicago, Ill. Wire fabric for fire-proof structures.....	460,214	Sept. 29	2627	656	56	1601
McCarthy, Mitchell F., assignor to United States Fire Proofing Company, Chicago, Ill. Hollow-tile flooring.....	461,960	Oct. 27	2311	573	57	465
McCarthy, Oliver, assignor to Meriden Britannia Company, Meriden, Conn. Coffin-handle.....	446,689	Feb. 17	1927	481	54	905
McCarthy, Patrick, Kansas City, Mo. Curtain-fixture.....	454,491	June 23	1971	513	55	1548
McCarthy, Richard. (See Morgan and McCarthy.)						
McCarty, Robert A., Detroit, Mich., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, Boston, Mass. Store-service apparatus.....	465,967	Dec. 29	3135	804	57	1771
McCarthy, Stephen, U. S. Navy. Cartridge.....	457,658	Aug. 11	1191	305	56	764
McCarthy, Timothy F. (See Murphy and McCarthy.)						
McCarthy, William, assignor of one-half to H. Garono, Buffalo, N. Y. Adjustable hinge.....	444,455	Jan. 13	741	193	54	155
McCartney, Edward A., New York, N. Y. Disinfectant-holder.....	457,659	Aug. 11	1192	305	56	764
McCartney, James H., et al. (See Munger, Lyman F., assignor.)						
McCarty, Charles, Fall River, assignor to G. Draper & Sons, Hopedale, Mass. Spinning-ring coupler.....	459,255	Sept. 8	1110	271	56	1228
McCarty, George W. (See Smith, William B., assignor.)						
McCarthy, Thomas, Charlton, Mass. Picker-staff-operating device for looms.....	447,841	Mar. 10	936	234	54	1302
McCash, James A., Carthage, Ohio. Support for bicycles.....	466,020	Dec. 29	3248	827	57	1792
McCaskey, John L., Waynesboro, Pa. Electric programme-clock.....	463,843	Nov. 24	2575	671	57	1073
McCaul, James L., Abilene, Tex. Cotton-chopper.....	464,179	Dec. 1	257	63	57	1184
McCauley, George L., Pleasant Plains, Ark. Wrench.....	449,257	Mar. 31	3207	809	54	1763
McChesney, Bert T., Worthington, Minn. Washing-machine.....	458,293	Aug. 25	2238	547	56	978
McClain, Edward L., et al. (See Head, Joseph A., assignor.)						
McClain, Edward L., Greenfield, Ohio. Harness-pad cap.....	454,656	June 23	2250	578	55	1597
McClain, Edward L., Greenfield, Ohio. Animal-trap.....	454,657	June 23	2251	578	55	1597
McClain, Rufus N., and J. H. Caldwell, Wellford, S. C. Seed planter and cultivator.....	455,236	June 30	3251	825	55	1796
McClaghry, Charles C. (See Anderson and McClaghry.)						
McClay, David G., Santa Ana, Cal. Fruit-gatherer.....	464,380	Dec. 1	581	143	57	1244
McClary, Lee, and J. Stone, Schaller, Iowa. Adjustable wheel colter for plows.....	464,439	Dec. 1	664	163	57	1261
McClellan, Ezra S., Paterson, N. J. Air-valve for drain-pipes.....	415,534	Dec. 22	2453	625	57	1630
McClellan, Lavinia H., Bristol, Tenn. Window-sash.....	449,692	Mar. 31	3723	935	54	1858
McClendon, Abram E., Chambers county, Ala. Harrow and cultivator.....	465,193	Dec. 15	1889	479	57	1513
McClendon, John J., assignor of one-third to R. E. Milam, Leesburg, Fla. Orange-sizer.....	458,061	Aug. 18	1855	483	56	899

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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McClintock, Frank, Grand Junction, Colo. Dissolving-view magic lantern	450,815	Apr. 21	1821	442	55	369
McClintock, Orville N., Topeka, Kans. Combined letter-copying press and book	444,204	Jan. 6	368	91	54	74
McCloskey, William, assignor of one-half to C. J. Hoyt, New Orleans, La. Letter-box	448,062	Mar. 10	1296	331	54	1371
McCloskie, John, assignor of one-half to J. W. McClymonds and W. F. Ricks, Massillon, Ohio. Pottery-kiln	457,465	Aug. 11	895	231	56	706
McClure, Alfred S., and T. Boggs, Clay Centre, Kans. Lister-cultivator	450,915	Apr. 21	1968	482	55	398
McClure, Almer S., and C. E. Fri, Elkhart, Mo. Corn-harvester	456,657	July 28	2171	575	56	440
McClymonds, J. W., <i>et al.</i> (See McCloskie, John, assignor.)						
McCollin, Thomas H., Lansdowne, Pa. Artificial light for photography	445,188	Jan. 27	1953	505	54	405
McColloch, Simon L., Wheeling, W. Va. Grain-binding machine	458,261	Aug. 25	2174	532 533 534	56	967
McColm, Frank G., Forestburg, S. D. Locking device for shafts	448,725	Mar. 24	2388	598	54	1598
McComb, James, W. L. Hook, J. McComb, and R. Gillespie, Corning, Ohio. Car-coupling	455,237	June 30	3252	825	55	1797
McComb, John. (See McComb, Hook, McComb, and Gillespie.)						
McComb, John W. (See Kaylor, McComb, and Daniel.)						
McComb, Walter, <i>et al.</i> (See Speaker, Charles E., assignor.)						
McCombs, George F., Allegheny, Pa. Wrapping-machine	466,120	Dec. 29	3392	868 869 870	57	1822
McCombs, Robert, assignor to H. N. Taylor, Fairfield, Me. Belt-fastener	453,019	May 26	2545	641	55	1083
McConaughy, Edwin L., Philadelphia, Pa. Pneumatic billiard-table	460,592	Oct. 6	75	20	57	17
McConaughy, Edwin L., Philadelphia, Pa. Pneumatic game-board	460,593	Oct. 6	76	21	57	17
McConaughy, Edwin L., Philadelphia, Pa. Game-board	464,887	Dec. 8	1350	339	57	1402
McConn, Harry D., Fort Madison, Iowa. Hand-harrow	462,726	Nov. 10	802	209	57	714
McConnaughey, David S., Washington, Iowa. Suture-instrument	462,270	Nov. 3	78	19	57	566
McConnell, Drusilla C., Williamston, S. C. Fender for plows	464,102	Dec. 1	143	36	57	1164
McConnell, James, <i>et al.</i> (See Gray, James D., assignor.)						
McConnell, John A. (See Bryce, Andrew, assignor.)						
McConnell, Virgil H., Buffalo, N. Y. Feed-water heater and purifier	445,933	Feb. 3	679	166	54	644
McConnell, Virgil H., Buffalo, N. Y. Feed-water heater and purifier	445,934	Feb. 3	681	166	54	645
McConway, William, Pittsburg, Pa. Car-coupling	446,602	Feb. 17	1787	442 443	54	879
McConway, William, Pittsburg, Pa. Car-coupling	447,969	Mar. 10	1156	293	54	1343
McCool, William A., Beaver Falls, Pa. Machine for straightening and polishing metal bars, &c.	445,571	Feb. 3	79	18, 19	54	527
McCool, William A., Beaver Falls, Pa. Die for making links for sprocket-chains	461,268	Oct. 13	1119	286	57	223
McCord, Alvin C., Minneapolis, Minn. Car-coupling	454,406	June 16	1843	482	55	1515
McCord, J. A., <i>et al.</i> (See Jackson, William, assignor.)						
McCord, James R., Jackson, Ga. Fertilizer-distributor	450,598	Apr. 14	1435	353	55	282
McCord, John, <i>et al.</i> (See Green, John, assignor.)						
McCord, William J., Chicago, Ill. Rail-joint	459,045	Sept. 8	786	190	56	1226
McCorkindale, Duncan L., Childs, Md. Slitter for paper-cutting machines	453,655	June 9	753	194 195	55	1298
McCormack, William, and C. E. Craig, Otwell, Ind. Wire-fence-making implement	456,093	July 14	1246	328	56	245
McCormick, James F., assignor of one-half to R. A. Magee, Marion, Iowa. Automatic light-extinguisher	458,660	Sept. 1	177	42	56	1099
McCormick, Charles W., Emporia, Kans. Store-service apparatus	455,903	July 14	975	254 255	56	195
McCormick, George E., and W. B. McLean, Jamestown, N. D. Spring-seat	451,291	Apr. 28	2580	637	55	525
McCormick Harvesting Machine Company. (See Haskins, James H., assignor.)						
McCormick Harvesting Machine Company. (See Kingwill, John F., assignor.)						
McCormick Harvesting Machine Company. (See Macphail, James, assignor.)						
McCormick Harvesting Machine Company. (See Pridmore, Henry E., assignor.)						
McCormick, John M. (See Blue, John, assignor.)						
McCormick, Michael. (See Whitfield and McCormick.)						
McCornaek, Herbert, McQueen, Ill. Nailing implement	462,848	Nov. 10	1001	259	57	754
McCornaek, Herbert, McQueen, Ill. Roof-scaffold	462,849	Nov. 10	1004	259	57	754
McCory, Edward R., Elkhart, Mo. Combined fork and rake	453,776	June 9	946	245	55	1335
McCowatt, David, Chicago, Ill. Hot-air furnace	458,477	Aug. 25	2536	617	56	1034
McCoy, Alonzo B., Burlington, assignor of one-half to H. B. Anthony, Camden, N. J. But-ton-marker for shoe-uppers	455,759	July 14	754	198 199	56	154
McCoy, Daniel H., Darby, Pa. Stirring-machine	452,973	May 26	2476	626	55	1069
McCoy, Elijah, Detroit, Mich. Lubricator	465,875	Dec. 29	2977	761	57	1741
McCoy, Elijah, assignor to H. C. and C. C. Hodges, Detroit, Mich. Dope-cup	460,215	Sept. 29	2628	656	56	1602
McCoy, John, York, Pa. Machine for making card-board	448,063	Mar. 10	1297	331	54	1371
McCoy, John A. (See Keller and McCoy.)						
McCoy, Melvin S., Monticello, Ill. Band-cutter and feeder for thrashers	461,036	Oct. 13	764	196	57	155
McCoy, Thomas T., Pittsburg, Pa. Tool for threading bottle-necks	463,575	Nov. 17	2156	569	57	985
McCracken, Edwin D., Alpine, N. J. Insulated electric conductor	456,120	July 14	1289	338	56	254
McCracken, Edwin D., Alpine, N. J., assignor to Norwich Insulated Wire Company, New York, N. Y. Insulated electric conductor	454,060	June 16	1322	345	55	1416
McCracken, Edwin D., Alpine, N. J., assignor to Norwich Insulated Wire Company, New York, N. Y. Insulated electrical conductor	455,904	July 14	979	255	56	196
McCracken, Edwin D., Alpine, N. J., assignor to Norwich Insulated Wire Company, New York, N. Y. Electric conductor	459,378	Sept. 8	1312	327	56	1329
McCracken, William D. (See Hart, Isaac C., assignor.)						
McCray, Joseph A., New York, N. Y. Car-replacer	457,972	Aug. 18	1727	452	56	874
McCray, Thomas H., Chicago, Ill. Belt-gearing	449,166	Mar. 31	3059	774	54	1735
McCray, Thomas H., assignor to L. L. Bond, Chicago, Ill. Belt-gearing	465,141	Dec. 15	1812	459	57	1498
McCray, Thomas H., assignor to L. L. Bond, Chicago, Ill. Link-belt chain	465,142	Dec. 15	1813	459	57	1498
McCready, David, Perysville, Ohio. Thill-coupling	447,786	Mar. 10	834	209	54	1283
McCready, William F., Homewood, Pa. Burglar or animal trap	463,537	Nov. 17	2086	549	57	971
McCready Electrical Specialty Company. (See Phillips, John O., assignor.)						
McCreedy, Franklin W. B., New York, N. Y. Paper-bag machine	458,914	Sept. 1	572	139	56	1175
McCreedy, Jonas E., Chicago, Ill. Steam-boiler and furnace	451,504	May 5	94	23	55	597
McCreight, M. I., <i>et al.</i> (See Powers, Charles M., assignor.)						
McCroory, Joseph C., <i>et al.</i> (See Green, David S., assignor.)						
McCrossie, James, New Iberia, La. Vermifuge	453,063	May 26	2619	.....	55	1097
McCruden, James, Flint, Mich. Thill-iron	464,983	Dec. 15	1510	378	57	1443
McCulloch, Archibald, assignor of one-half to A. Vinett, Pittsfield, Mass. Combined step and fender for vehicles	449,084	Mar. 24	2932	742	54	1703
McCulloch, Robert, and J. Volk, St. Louis, Mo.; said Volk assignor to said McCulloch. Cable-lifter	460,484	Sept. 29	3036	761	56	1679

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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McCulloch, Thomas. (See Armit, Robert H., assignor.)						
McCullough, Alexander C. (See Chaddock, Sutton, and McCullough.)						
McCullough, George C., assignor of one-half to W. P. Cook and W. A. Baumer, Richmond, Ind. Galvanic battery	451,948	May 12	779	198	55	734
McCully, Robert, Philadelphia, Pa. Crusher and pulverizer	458,638	Sept. 1	136	30 31 32	56	1092
McCully, Robert, Philadelphia, Pa. Crushing-machine	463,162	Nov. 17	1502	389 390 391	57	859
McCully, Robert, Philadelphia, Pa. Crushing and pulverizing machine	463,538	Nov. 17	2087	550 551	57	972
McCully, Robert, Philadelphia, Pa. Crushing-machine	463,539	Nov. 17	2091	551 552	57	972
McCully, Robert, Philadelphia, Pa. Stone-breaker	463,911	Nov. 24	2703	702	57	1096
McCully, Robert, Philadelphia, Pa. Crushing and pulverizing machine	464,463	Dec. 1	696	171	57	1267
McCully, William H., et al. (See Wyeth, David G., assignor.)						
McCully, William M. (See Wyeth and McCully.)						
McCune, Jeff T., et al. (See Pugh, Cortez V., assignor.)						
McCune, Joseph B., Everett, Mass. Pneumatic tire	456,771	July 28	2370	623	56	476
McCurdy, George. (See Kinney, Elisha P., assignor.)						
McCurdy, John W. C., Mansfield, Pa. Safety rail-brake	461,486	Oct. 20	1540	377	57	310
McCutchen, Charles W. (See Van Alen and McCutchen.)						
McCutchen, Charles W., Peekskill, N. Y. Gas-stove	444,056	Jan. 6	114	28	54	25
McCutchen, John, assignor to J. E. McCutchen, Rochester, N. Y. Truss	457,747	Aug. 11	1344	348	56	797
McCutchen, John E. (See McCutchen, John, assignor.)						
McCutcheon, Alexander, Emporia, Kans. Filter	460,984	Oct. 13	692	179	57	142
McCutcheon, William J., Jr., Pittsburg, Pa. Incandescent double-key lamp-socket	461,706	Oct. 20	1896	469	57	376
McCutcheon, William J., Jr., Pittsburg, Pa. Key-socket for double-filament incandescent lamps	462,574	Nov. 3	560	136	57	658
McDaniel, Albert G., Hannibal, Mo. Lamp	444,278	Jan. 6	471	120	54	93
McDaniel, Charles W., assignor of one-half to J. A. Burleigh, Lake Village, N. H. Furnace-mouth	461,504	Oct. 20	1566	384	57	316
McDaniel, George W. (See Kirkpatrick and McDaniel.)						
McDaniel, Hardy, Donaldson, Ark. Seeder and planter	459,762	Sept. 22	1934	487	56	1461
McDaniel, Hiram G., Archbold, Ohio. Fence-wire tightener	449,563	Mar. 31	3725	935	54	1858
McDaniel, Samuel W. (See Berry, Ellen A., assignor.)						
McDermaid, John, Rockford, Ill. Locking attachment for churn-heads	459,145	Sept. 8	942	226 227	56	1256
McDermott, George C. (See Mills, John D., assignor.)						
McDermott, George C. (See Mills and McDermott.)						
McDermott, James, Louisville, Ky., and L. Kahn, Hamilton, Ohio; said McDermott assignor to said Kahn. Chill-core for molding leg-sockets for stoves	453,373	June 2	298	78	55	1203
McDonagh, Charles, assignor of one-half to J. McCaffrey, Toledo, Ohio. Flower-pot machine	444,009	Jan. 6	42	12	54	11
McDonald, Alexander J., Chicago, Ill. Railway-gate	447,080	Feb. 24	2578	640	54	1039
McDonald, Alexander J., and R. B. Brent, assignors to Pneumatic Power and Railroad Gate Company, Chicago, Ill. Motor for railway-gates	447,079	Feb. 24	2577	639	54	1039
McDonald, Alfred M., assignor to S. W. Kirkland, Brattleborough, Vt. Coat-hanger	453,586	June 2	639	163	55	1268
McDonald, Angus J., Blaine, Wash. Household article	461,842	Oct. 27	2119	522	57	427
McDonald, Charles, Norwalk, Ohio, and F. C. McDonald, Chicago, Ill. Mop-wringer	441,279	Jan. 6	473	120	54	93
McDonald, Edward H., Wytheville, Va. Rotary steam-engine	465,194	Dec. 15	1889	479	57	1513
McDonald, Edwin, Willow, Cal. Thrashing-machine	446,234	Feb. 10	1193	292 293	54	748
McDonald, Fred C. (See McDonald, Charles and F. C.)						
McDonald, George N., McDonald, Fla. Bath-tub lining	455,429	July 7	213	54	56	44
McDonald, George R. (See Graham and McDonald.)						
McDonald, Hugh, et al. (See Burling, Benjamin H., assignor.)						
McDonald, Hugh, Williamsport, Pa. Furniture-caster	454,284	June 16	1652	433	55	1479
McDonald, James R. (See Stebbins and McDonald.)						
McDonald, James R., Chicago, Ill. Bridle-bit	455,049	June 30	2938	748 379 380 381 382	55	1735
McDonald, James R., and T. Stebbins, assignors to National Folding and Enveloping Company, Chicago, Ill. Machine for making envelopes	464,984	Dec. 15	1511	383	57	1443
McDonald, John, Tokio, Japan. Locomotive sand-box	456,054	July 14	1198	315	56	236
McDonald, John B., Chicago, Ill. Electrode for secondary batteries	460,235	Sept. 29	2655	661	56	1807
McDonald, Joseph, Harrison, N. J. Washing-machine	461,505	Oct. 30	1567	384	57	316
McDonald, Marshall, assignor to Automatic Filter Company, Washington, D. C. Filter	455,573	July 7	443	117	56	85
McDonald, Marshall, assignor to Automatic Filter Company, Washington, D. C. Method of and means for cleaning filtering-surfaces	455,574	July 7	445	118	56	86
McDonald, Samuel, Dunkirk, Ind. Holdback for vehicles	451,160	Apr. 28	2352	584	55	482
McDonald, Samuel J., Gallatin, Mo. Road-cart	444,456	Jan. 13	742	194	54	155
McDonald, Theodore R., assignor of one-half to H. R. Bolander, Marion, Ohio. Grain-binder	452,980	May 26	2485	628 629 630	55	1071
McDonald, Thomas, Jr., Allegheny, Pa. Nut-lock	464,758	Dec. 8	1167	291	57	1366
McDonald, Thomas F., Waterbury, Conn. Beer-faucet	464,318	Dec. 1	495	118	57	1228
McDonald, William, Albany, N. Y. Gas station-meter	460,154	Sept. 29	2540	633	56	1584
McDonald, William M. (See Wight, Ronell L. and H. F., assignors.)						
McDonnell, Patrick E., assignor of one-half to L. H. Wilson, Chicago, Ill. Method of and apparatus for transportation	446,786	Feb. 17	2066	515	54	934
McDonnell, Vincent J., Philadelphia, Pa. Monkey-wrench	449,129	Mar. 31	3009	761	54	1736
McDonough, Frank, Eau Claire, Wis. Self-feeding rip-saw machine	452,110	May 12	1075	272 273	55	785
McDonough, Frank, Eau Claire, Wis. Band-saw machine	457,055	Aug. 4	181	45	56	568
McDonough, James W., New York, N. Y. Telephone transmission	446,188	Feb. 10	1120	274	54	733
McDougall, Alexander, Duluth, Minn. Apparatus for loading and unloading vessels	453,155	May 26	2772	697 698	55	1126
McDougall, Alexander, Duluth, Minn. Frame-work for vessels	456,586	July 28	2049	541 542	56	415
McDougall, Alexander, Duluth, Minn. Jury-mast	456,587	July 28	2051	542 543	56	416

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McDougall, Alexander, Duluth, Minn., assignor to American Steel Barge Company, of New York. Anchor	445,816	Feb. 3	510	133	54	611
McDowell, Albert, New York, N. Y. Adjustable pattern for drafting trousers	459,856	Sept. 22	2079	522	56	1490
McDowell, Alexander, Lynn, Mass. Heel-seat trimmer	455,884	July 14	950	248	56	191
McDowell, Anthony B., Edna, Tex. Sewing-machine attachment	465,722	Dec. 22	2734	697	57	1684
McDowell-Guajardo, José A., Saltillo, Mexico. Lubricating device for the top rolls of spinning or like frames	457,877	Aug. 18	1559	405	56	843
McDowell, John M. (See Kyle, George S., assignor.)						
McDowell, Thomas, Niagara Falls, N. Y. Printing-machine	456,368	July 21	1688	{ 444 445 }	56	339
McElhiney, Harrison H., Nebraska City, Nebr. Flower-pot	446,460	Feb. 17	1582	389	54	839
McElroy, Charles E., <i>et al.</i> (See Rogers, Charles C., assignor.)						
McElroy, James E., <i>et al.</i> (See Mitchell, Augustus P., assignor.)						
McElroy, James F., assignor to Consolidated Car Heating Company, Albany, N. Y. Temperature-regulator	445,378	Jan. 27	2222	576	54	460
McElroy, James F., assignor to Consolidated Car Heating Company, Albany, N. Y. Car-heater	452,349	May 12	1467	363	55	859
McElroy, James F., assignor to Consolidated Car Heating Company, Albany, N. Y. Hose-coupling	454,287	June 16	1657	435	55	1480
McElroy, James F., assignor to Consolidated Car Heating Company, Albany, N. Y. Pipe-coupling	458,793	Sept. 1	366	89	56	1135
McElroy, James F., assignor to Consolidated Car Heating Company, Albany, N. Y. Electric regulator	460,059	Sept. 22	2386	596	56	1547
McElroy, James F., assignor to Consolidated Car Heating Company, Albany, N. Y. Car-heater	462,502	Nov. 3	440	108	57	634
McElroy, James F., Albany, N. Y., assignor to Consolidated Car Heating Company, Wheeling, W. Va. Water-heater	452,145	May 12	1134	287	55	795
McElroy, James F., Albany, N. Y., assignor to Consolidated Car Heating Company, Wheeling, W. Va. Steam-heating apparatus	454,285	June 16	1653	{ 433 434 }	55	1480
McElroy, James F., Albany, N. Y., assignor to Consolidated Car Heating Company, Wheeling, W. Va. Steam-heating system for railway-cars	454,286	June 16	1656	434	55	1480
McElroy, James F., Albany, N. Y., assignor to Consolidated Car Heating Company, Wheeling, W. Va. Steam-trap	458,792	Sept. 1	365	89	56	1135
McElroy, James F., Albany, N. Y., assignor to Consolidated Car Heating Company, Wheeling, W. Va. Temperature-regulator	462,503	Nov. 3	441	108	57	634
McElroy, John P., <i>et al.</i> (See Bliss, Henry S., assignor.)						
McElroy, Joseph F., assignor of one-fourth to J. T. Delaney, San Francisco, Cal. Desk and seat support	452,527	May 19	1763	443	55	922
McElroy, Josiah B., Charlestown, W. Va. Meridian drawing-board	449,049	Mar. 24	2876	730	54	1692
McElroy, Patrick J., <i>et al.</i> (See Chevers, Aurion V., assignor.)						
McElroy, Samuel, Brooklyn, N. Y. Fish-preserve dam	450,490	Apr. 14	1283	314	55	252
McElwee, Bernard F., Dunmore, W. Va. Cutter-bar	453,203	June 2	32	10	55	1155
McEntee, Patrick, Montgomery, Minn. Car-coupling	451,505	May 5	96	24	55	597
McEntee, Thomas, Jersey City, N. J. Oil-cup	453,911	June 9	1118	292	55	1369
McEntee, William, Erin, Minn. Cartridge-belt	453,156	May 26	2774	698	55	1126
McEntyre, Robert. (See Stuard, Charles D., assignor.)						
McEwen, Allen W., <i>et al.</i> (See Waterbury and Rankin, assignors.)						
McEwan, William W. (See Hull and McEwan.)						
McEwen, James H., and B. E. Cartwright, said Cartwright assignor of two-fifths to D. Robertson, Ridgeway, and S. Hines, Scranton, Pa. Coal-cutting machine	450,971	Apr. 21	2063	509	55	416
McFadden, Bernard A., St. Louis, Mo. Attachment for shoes, gloves, &c	449,564	Mar. 31	3726	936	54	1858
McFadden, Francis, Baltimore, Md. Piston-packing	455,989	July 14	1104	290	56	218
McFalls, David H., Ellensburg, Wash. Carpet-stretcher	444,503	Jan. 13	828	216	54	173
McFarland, Edwin C., Everett, assignor to Boston Type Foundry, Boston, Mass. Clutch-ing and releasing mechanism	454,141	June 16	1440	{ 376 377 }	55	1438
McFarland, John, Dedham, Iowa. End-gate	448,249	Mar. 17	1590	406	54	1439
McFarland, Samuel G., assignor to N. O. Nelson Manufacturing Company, St. Louis, Mo. Urinal and water-closet	460,485	Sept. 29	3037	761	56	1679
McFarlane, Hugh, <i>et al.</i> (See Chine, Frederick N., assignor.)						
McFarlane, Robert. (See Fisher and McFarlane.)						
McFarlane, William A., and S. A. Barrett, San Bernardino, Cal. Water-gage	452,678	May 19	1992	499	55	967
McFarlane, William T., Stockton, Utah. Girth-fastener	449,492	Mar. 31	3624	912	54	1840
McFarren, George F. (See Green, John H., assignor.)						
McFee, George, <i>et al.</i> (See Rockwell, Warren C., assignor.)						
McFerran, Joseph A., Philadelphia, Pa. Pill-machine	449,424	Mar. 31	3520	{ 886 887 }	54	1819
McGaffey, Ives W., assignor of one-half to W. D. Allen, Chicago, Ill. Lawn-sprinkler	454,288	June 16	1658	435	55	1481
McGahan, Fred. L. (See Abrams and McGahan.)						
McGahan, Fred. L., Indianapolis, Ind. Locomotive feed-water heater	456,676	July 28	2200	{ 583 584 }	56	446
McGahan, Fred. L., Indianapolis, Ind. Apparatus for condensing exhaust-steam	462,271	Nov. 3	81	19, 20	57	567
McGahan, Fred. L., Indianapolis, Ind. Exhaust mechanism	462,272	Nov. 3	83	20	57	567
McGahan, Fred. L., Indianapolis, Ind. Feed-water regulator	462,273	Nov. 3	84	20	57	567
McGahan, Fred. L., Indianapolis, Ind. Steam-condenser	462,274	Nov. 3	85	20	57	567
McGahan, Fred. L., Indianapolis, Ind. Exhaust-steam purifier	462,275	Nov. 3	85	21	57	567
McGahan, Fred. L., Indianapolis, assignor of three-fourths to H. C. Bailey, Edinburg, Ind. Commutator-oiler	461,105	Oct. 13	858	221	57	172
McGahan, Frederick L., <i>et al.</i> (See Mettler, Eugene G., assignor.)						
McGahan, Frederick L., Indianapolis, Ind. Electric motor	455,109	June 30	3041	773	55	1756
McGahan, Frederick L., Indianapolis, Ind. Electric motor	455,110	June 30	3043	{ 773 774 }	55	1757
McGahan, Frederick L., Indianapolis, Ind. Friction-gearing for dynamos	455,488	July 7	297	75	56	60
McGahan, Frederick L., Indianapolis, Ind. Armature for dynamos	455,971	July 14	1080	282	56	213
McGarvey, John, Allegheny, Pa. Regrinding-tool for valve-seats	460,380	Sept. 29	2887	721	56	1651
McGarvey, John, Allegheny, Pa. Condenser	460,398	Sept. 29	2912	727	56	1655
McGary, Marcellus, Crawford Station, Mo. Mole-trap	463,736	Nov. 24	2427	636	57	1044
McGeary, Charles J. (See Olsen, Adolph, assignor.)						
McGee, Albert M. (See Newton, William H., assignor.)						
McGee, Augustus M., Cleveland, Ohio. Making stove-scrappers	455,441	July 7	227	58	56	46
McGee, Dennis A., Mount Carmel, Pa. Measuring-vessel	453,936	June 9	1151	300	55	1375
McGee, James L. (See Roberts and McGee.)						
McGee, William F., Jackson, Mich. Corset-fastening	451,506	May 5	97	24	55	597
McGehe, William J., Bushnell, Ill. Rotary grinding-machine	452,004	May 12	870	222	55	751

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McGenniss, David, Amsterdam, N. Y. Commutator-truer	448,540	Mar. 17	2067	518	54	1530
McGhee, John F., Guthrie Centre, Iowa. Grain-car door	464,078	Dec. 1	111	27	57	1158
McGibony, William R., Monroe, Ga. Railway-switch	451,507	May 5	98	24	55	597
McGill, George W., New York, N. Y. Suspending device for curtains or other drapery	452,974	May 26	2477	627	55	1070
McGill, George W., New York, N. Y. Device for hanging curtains	453,126	May 26	2724	686	55	1118
McGill, Hugh. (See Clewley, Frank, assignor.)						
McGill, James, assignor to Richmond Manufacturing Company, Lockport, N. Y. Brand- duster	461,388	Oct. 13	1325	334	57	264
McGill, James, and T. Ryan, assignors to Richmond Manufacturing Company, Lockport, N. Y. Grain-separator	460,691	Oct. 6	261	64	57	52
McGill, James W., Peoria, Ill. Car-coupling	463,687	Nov. 24	2350	616	57	1030
McGill, William C., Washington, D. C. Cash register and indicator	446,925	Feb. 24	2322	577	54	991
McGilliendy, John F., et al. (See Taylor, Norton B., assignor.)						
McGillivroy, Minnie, Vancouver, Canada. Hair-tonic	451,508	May 5	98		55	598
McGinnis, William. (See Jordan and Eller, assignors.)						
McGirr, Joseph B., Washington, D. C. Paper-clamp	448,822	Mar. 24	2529	634	54	1625
McGlinchey, Charles E., assignor to C. F. Stokes, Chicago, Ill. Velocipede-saddle	455,474	July 7	275	70	56	56
McGlinchey, Charles E., assignor to C. F. Stokes, Chicago, Ill. Velocipede-saddle	460,279	Sept. 29	2736	680	56	1622
McGlinchey, Charles E., assignor to C. F. Stokes, Chicago, Ill. Velocipede	465,599	Dec. 22	2559	652	57	1650
McGlinchey, Charles E., assignor of two-thirds to C. H. Dunham and F. Brady, Chicago, Ill. Velocipede	445,125	Jan. 20	1839	476	54	374
McGlinn, John F. (See Seiders, William R., assignor.)						
McGlothlen, Francis M., Sioux City, Iowa. Type-writing machine	464,985	Dec. 15	1524	384	57	1445
McGouldrick, Edward A., St. Paul, Minn. Thill-support	454,878	June 30	2601	668	55	1671
McGowan, John C., assignor of one-half to W. D. Colt, Washington, D. C. Sewerage sys- tem	448,988	Mar. 24	2781	703	54	1674
McGowan, John H., Cincinnati, Ohio. Back-pressure valve	446,002	Feb. 10	809	196	54	678
McGowan, John H., Cincinnati, Ohio. Finisher-press	447,003	Feb. 24	2439	606	54	1013
McGowan, Mark J., assignor of two-thirds to F. B. Morrow and J. Hartnett, Toronto, Can- ada. Car-coupler	465,675	Dec. 22	2674	682	57	1672
McGowan, Michael. (See Coupe, William, assignor.)						
McGowan, Thomson, Cleveland, Ohio. Apparatus for distilling	454,061	June 16	1323	345	55	1416
McGrath, John. (See Smith and McGrath.)						
McGrath, John, assignor to G. N. Lyman, Sr., Minneapolis, Minn. Gill-hackle for draw- ing and roving	460,649	Oct. 6	183	47	57	38
McGrath, John, and G. Y. Smith, assignors to G. N. Lyman, Sr., Minneapolis, Minn. Separ- ating fiber and apparatus therefor	456,155	July 21	1345	357	56	275
McGrath, John, and G. Y. Smith, assignors to G. N. Lyman, Sr., Minneapolis, Minn. Fiber- separating machine	456,156	July 21	1348	358	56	275
McGrath, John, and G. Y. Smith, assignors to G. N. Lyman, Sr., Minneapolis, Minn. Flax- scutcher	460,303	Sept. 29	2767	689	56	1628
McGrath, John F., Taunton, Mass. Ratchet-drill	465,647	Dec. 22	2630	671	57	1664
McGrath, Michael, Toledo, Ohio. Self-acting switch-lock	457,999	Aug. 18	1762	462	56	881
McGrath, Robert, Brooklyn, N. Y. Expansion-bolt	456,588	July 28	2053	543	56	416
McGregory, William W., Pasadena, Cal. Reamer	460,444	Sept. 29	2969	742	56	1666
McGrew, Carrie, Cincinnati, Ohio. Card-holding attachment for type-writing machines	452,547	May 19	1792	450	55	927
McGrew, Janus I. (See Smith, George W., assignor.)						
McGriff, Thomas K. S., Chicago, Ill. Copy-holder	444,612	Jan. 13	988	256	54	204
McGroory, Thomas, Philadelphia, Pa. Heating railway-cars	463,405	Nov. 17	1898	495	57	934
McGuire, Elwood W. (See Dille and McGuire.)						
McGuire, Frank J., Allegheny, Pa. Pipe-coupling	419,293	Mar. 31	3266	828	54	1773
McHale, John, and V. C. Dillmann, Kansas City, Mo. Hydrocarbon-burner	448,064	Mar. 10	1298	332	54	1372
McHugh, Hugh, New Bedford, assignor of one-half to G. H. Bush, Fall River, Mass. Mach- ine for molding or embossing plastic materials	459,817	Sept. 22	2023	507	56	1478
McHugh, Timothy, Wakefield, assignor of one-half to Smith & Anthony Stove Company, Boston, Mass. Clamp for pipes and mains	444,235	Jan. 6	413	103	54	81
McHugh, Timothy, Wakefield, assignor of one-half to Smith & Anthony Stove Company, Boston, Mass. Water-supply apparatus for water-closet tanks	449,944	Apr. 7	446	111	55	87
McHugh, Timothy, Wakefield, assignor of one-half to Smith & Anthony Stove Company, Boston, Mass. Valve-operating mechanism for water-closet supply-tanks	466,103	Dec. 29	3369	860	57	1817
McIlhenry, James S., and J. C. Davison, Washington, D. C. Safety-rack	450,419	Apr. 14	1183	289	55	232
McIlvain, Alfred H., Philadelphia, Pa. Hydraulic pipe	459,227	Sept. 8	1069	260	56	1279
McIlvaine, John S., Chambersburg, Pa. Spring-scale	452,278	May 12	1342	335	55	836
McIlvay, George D., Carrollton, Mo. Washing-machine	457,428	Aug. 11	835	216	56	696
McIlvried, John, assignor of three-fourths to S. H. Chisholm, Cleveland, Ohio. Reel for coiling wire	452,889	May 26	2330	588	55	1041
McIlwaine, James R., et al. (See Speaker, Charles E., assignor.)						
McIndoe, George F. and J. W., Boston, Mass. Machine for stamping cigars	455,820	July 14	863	226	56	173
McIndoe, James W. (See McIndoe, George F. and J. W.)						
McIntire, Joseph H., Galion, Ohio. Weather-strip	446,609	Feb. 17	1796	444	54	881
McIntire, William C., et al. (See Truesdell, George, assignor.)						
McIntire, William C., Washington, D. C., assignor to Iron Clad Manufacturing Company, New York, N. Y. Sheet-metal vessel	451,410	Apr. 28	2749	680	55	557
McIntosh, Campbell A., Vancouver, Canada. Wrench	455,238	June 30	3253	825	55	1797
McIntosh, Harry A. (See McIntosh, Theodore, assignor.)						
McIntosh, Lyman D., Ravenswood, Ill. Vaginal syringe	447,410	Mar. 3	228	59	54	1160
McIntosh, Lyman D., Chicago, Ill. Millampere-meter	460,650	Oct. 6	185	48	57	39
McIntosh, Milton J. (See Stroh and McIntosh.)						
McIntosh, Theodore, assignor of one-half to H. A. McIntosh, Brownsville, Ind. Two- wheeled vehicle	459,967	Sept. 22	2248	565	56	1521
McIntosh, William, Winona, Minn. Lubricator for locomotive-trucks	447,081	Feb. 24	2580	640	54	1039
McIntyre, Frank, assignor to Eagle Pencil Company, New York, N. Y. Combined rubber tip and tape-measure	462,151	Oct. 27	2598	647	57	520
McIntyre, Frank, assignor to Eagle Pencil Company, New York, N. Y. Pen-holder	462,446	Nov. 3	360	89	57	619
McIntyre, Frank F., assignor of one-half to A. A. Guigues, Philadelphia, Pa. Boot or shoe heel	456,677	July 28	2202	584	56	446
McIntyre, James. (See Sherlock and McIntyre.)						
McIntyre, John M. (See Helming and McIntyre.)						
McIsaac, John, Malden, Mass. Lineman's vise	464,034	Dec. 1	42	12	57	1144
McIver, James A., Enders, Ark. Plow	449,563	Mar. 31	3727	936	54	1858

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McKae, William D. (See Roberts, Dugald H., assignor.)						
McKaig, Thomas B., <i>et al.</i> (See Werner, John C., assignor.)						
McKain, Allen. (See Kirby and McKain.)						
McKay, Alexander, Vancouver, Canada. Machine for manufacturing panel-doors.	464,581	Dec. 8	879	216	57	1312
McKay, Andrew B. (See Drader and McKay.)						
McKay & Copeland Lasting Machine Company. (See Brock, Matthias, assignor.)						
McKay & Copeland Lasting Machine Company. (See McKay and Fairfield, assignors.)						
McKay, Frederick S., Hatley, Canada. Clothes-line	451,065	Apr. 28	2202	544	55	451
McKay, Gordon, Newport, R. I., and H. P. Fairfield, Medford, Mass., assignors to McKay & Copeland Lasting Machine Company, Portland, Me. Lasting-machine	458,000	Aug. 18	1763	463	56	881
McKay, Gordon, Newport, R. I., and H. P. Fairfield, Medford, Mass., assignors to McKay & Copeland Lasting Machine Company, Portland, Me. Lasting-machine	458,001	Aug. 18	1771	463	56	883
McKay, John L., King's Mountain, N. C. Sash-fastener	461,037	Oct. 13	765	196	57	155
McKay, John R., <i>et al.</i> (See Osborn, Luke W., assignor.)						
McKay, John W., Lynchburg, Va., assignor to McKay Plant Setter Manufacturing Company of Virginia. Combined plant-setter and seed-planter	450,946	Apr. 21	2006	494	55	405
McKay, Joseph, Troy, N. Y. Ironing-machine	456,658	July 28	2172	576	56	440
McKay Metallic Fastening Association. (See Goddu, Louis, assignor.)						
McKay Plant Setter Manufacturing Company of Virginia. (See McKay, John W., assignor.)						
McKay, Robert B., Logansport, La., assignor of one-half to B. A. Roper, Tenaha, Tex. Plow	457,893	Aug. 18	1589	413	56	848
McKechnie, Thomas F. (See Hunt and McKechnie.)						
McKee, Charles H., St. Louis, Mo. Shears	452,716	May 19	2060	518	55	981
McKee, Charles H., St. Louis, Mo. Pen-holder	458,062	Aug. 18	1756	484	56	900
McKee, Charles H., St. Louis, Mo. Electric-wire crossing	458,063	Aug. 18	1857	484	56	900
McKee, George H., Darlington, S. C., assignor of one-half to G. B. Howle and A. S. Harrell. Calendar	463,070	Nov. 10	1347	349	57	821
McKee, Roberts, <i>et al.</i> (See Minich, Daniel, assignor.)						
McKee, Robert, Meeker, Colo. Drill-bit	451,292	Apr. 28	2581	637	55	525
McKee, S. G., <i>et al.</i> (See Sylvester, Cyrus O., assignor.)						
McKee, William J. (See Blades and McKee.)						
McKeen, Thomas L., New York, N. Y., assignor to Thurmond Car Coupling Company, of West Virginia. Car-coupling	445,817	Feb. 3	511	123	54	611
McKeen, Thomas L., New York, N. Y., assignor to Thurmond Car Coupling Company, of West Virginia. Lever-bracket for car-couplings	447,578	Mar. 3	503	124	54	1212
McKeen, Thomas L., New York, N. Y., assignor to Thurmond Car Coupling Company, of West Virginia. Coupling for locomotives	447,579	Mar. 3	504	124	54	1212
McKeen, Thomas L., New York, N. Y., assignor to Thurmond Car Coupling Company, of West Virginia. Carrying-iron for car-couplings	454,754	June 23	2392	614	55	1627
McKeen, Thomas L., New York, N. Y., assignor to Thurmond Car Coupling Company, of West Virginia. Locomotive-coupling	464,381	Dec. 1	582	143	57	1245
McKeggie, James H., <i>et al.</i> (See Bunker, Harman, assignor.)						
McKeggie, John C., <i>et al.</i> (See Bunker, Harman, assignor.)						
McKelvey, Samuel P., St. Louis, Mo. Clamp for molding a combined curb and gutter	458,915	Sept. 1	574	139	56	1175
McKemmie, John. (See Dunham and McKemmie.)						
McKenna, James, Martinez, Cal. Feed-cutter	456,425	July 21	1795	475	56	358
McKenney, Charles F. L. (See Jones, Alonzo, assignor.)						
McKenney, Frank, <i>et al.</i> (See Herson, John, assignor.)						
McKenney, Fred B., Lincoln, Me. Rope-clamp	464,942	Dec. 8	1431	360	57	1419
McKenney, James H., <i>et al.</i> (See Herson, John, assignor.)						
McKeneey, Joel, Chelsea, Mass. Bridle-bit	453,414	June 2	378	97	55	1218
McKenzie, Charles J., and D. M. Mikesell, Wauseon, Ohio. Pump	455,636	July 7	548	142	56	106
McKenzie, George R., London, England. Parquetry	457,788	Aug. 18	1406	364	56	815
McKenzie, George W., Boston, Mass. Vise	447,580	Mar. 3	506	124	54	1212
McKenzie, W. A. (See Ink, Theron H., assignor.)						
McKenzie, William, Boston, Mass. Dust-guard for car-axes	446,003	Feb. 10	810	196	54	678
McKenzie, William D. (See Geiger, McKenzie, and Cross.)						
McKenzie, William D., <i>et al.</i> (See Cross, Gerome L., assignor.)						
McKeon, James, Oakland, Cal. Preserving timber	461,365	Oct. 13	1284		57	256
McKeown, Samuel W. (See Arnold, Samuel S., assignor.)						
McKethan, John G., Arcadia, La. Hand fertilizer-distributor	446,787	Feb. 17	2069	515	54	935
McKibben, Joseph F., Farmer's Station, Ohio. Stop-hinge	458,727	Sept. 1	274	66	56	1118
McKim, George W., Martin's Ferry, Ohio. Wire-nail-making attachment	447,895	Mar. 10	1022	257 } 258 }	54	1319
McKim, James T., Thorntown, Ind. Game-board	459,158	Sept. 8	966	235 } 410 }	56	1260
McKinlay, Edward S. and W. A., South Pueblo, Colo. Mining-machine	457,887	Aug. 18	1578	411 } 412 }	56	846
McKinlay, William A. (See McKinlay, Edward S. and W. A.)						
McKinley, Fred, Acme, Wash. Culinary boiler	461,120	Oct. 13	875	225	57	176
McKinnan, John, Spokane Falls, Wash., and A. Jameson, Missoula, Mont. Clothes-drier	452,233	May 12	1271	320 } 321 }	55	823
McKinnell, Thomas S., National Military Home, Ohio. Railway-switch	457,004	Aug. 4	113	28	56	355
McKinney, Americus G., assignor of one-half to H. Fessler, Canton, Ohio. Car-replacer	444,783	Jan. 13	1258	326	54	253
McKinnon, John, Moscow, Idaho. Clothes-drier	463,540	Nov. 17	2097	532	57	973
McKinnon, Michael J., Salem, Oreg. Tire-tightener	453,204	June 2	33	10	55	1155
McKivitt, William E., St. Paul, Minn., assignor to Western Electric Company, Chicago, Ill. Multiple system for telephone-exchanges	461,887	Oct. 27	2188	539 } 540 }	57	442
McKnight, Levi G., West Gardner, Mass. Feed-roller	445,123	Jan. 20	1837	475	54	374
McLain, William R., Des Moines, Iowa. Automatic circuit-breaker	465,046	Dec. 15	1637	417	57	1467
McLanahan, Samuel C., and W. F. Kirk, Hollidaysburg, Pa. Ore-washer	445,430	Jan. 27	2305	598	54	476
McLandsborough, Joseph, Station Fifteen, Ohio. Post-driver	448,140	Mar. 10	1404	359	54	1394
McLane, Hiram H. (See Hurd and McLane.)						
McLane, John, Milford, N. H. Combination-lock	458,404	Aug. 25	2425	590	56	1014
McLaughlin, William D., assignor of one-half to A. Phillips, Corunna, Mich. Low-water alarm and boiler-feeder	458,794	Sept. 1	368	89	56	1136
McLaughlin, James F., Philadelphia, Pa. Friction-clutch	451,653	May 5	320	78	55	640
McLaughlin, James F., Philadelphia, Pa. Electrical type-writing machine	453,430	June 2	407	105 } 106 }	55	1224
McLaughlin, James F., Philadelphia, Pa. Armature for electric motors or generators	458,856	Sept. 1	476	114 } 115 }	56	1157
McLaughlin, William F., Chicago, Ill. Coffee-cabinet	448,453	Mar. 17	1944	489	54	1506

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McLaurin, John F., and D. L. Whitaker, McColl, S. C. Fertilizer-distributor	445,189	Jan. 27	1954	505	54	405
McLaurin, John J., <i>et al.</i> (See Kellberg, John C., assignor.)						
McLaury, Robert W., Walton, N. Y. Stable-floor	456,274	July 21	1532	407	56	310
McLean, Daniel H., Ilion, N. Y. Game-board	457,618	Aug. 11	1137	290	56	754
McLean, Embury. (See Ellis, Jonathan T., assignor.)						
McLean, Herbert H., L'Etéte, New Brunswick, Canada. Hook	450,181	Apr. 14	783	198	55	159
McLean, Silamon, assignor of one-half to B. McCallum, Mineral Springs, S. C. Combined plow and fertilizer-distributor	446,389	Feb. 10	1453	356	54	801
McLean, William B. (See McCormick and McLean.)						
McLeary & Fleming. (See Gillespie, Lewis, assignor.)						
McLennan, William, Port Angeles, Wash. Pump	454,180	June 16	1500	393	55	1450
McLonghlin Brothers. (See Boynton, Edward S., assignor.)						
McLoughlin Brothers. (See Cromwell, Albert, assignor.)						
McLoughlin Brothers. (See Hoyt, Charles N., assignor.)						
McLonghlin, John, New York, N. Y. Picture-book	462,956	Nov. 10	1179	305	57	787
McMahon, Cormick. (See Mosher and McMahon.)						
McMahon, James, assignor to D. C. & H. C. Reed & Company, Kalamazoo, Mich. Wheel- cultivator	451,443	Apr. 28	2811	695	55	569
McMahon, John P., Jersey City, N. J. Electrical alarm system	459,591	Sept. 15	1656	414	56	1402
McMahon, Patrick, Manchester, Mich. Shield for ordnance	453,088	May 26	2661	671	55	1105
McMahon, Patrick, Whitestone, N. Y., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	451,878	May 5	653	164	55	703
McMahon, Patrick J., New Orleans, La. Apparatus for making anhydrous ammonia	445,331	Jan. 27	2158	559	54	447
McMahon, Robert, assignor of one-half to H. Gaston, Seattle, Wash. Car-coupling	447,737	Mar. 3	736	185	54	1257
McMahon, William, Rahway, N. J. Reproducer for phonographs	454,947	June 30	2749	701	55	1698
McManus, Dennis. (See Duncan and McManus.)						
McMaster, Alonzo J., Lockport, N. Y. Railway-car	451,510	May 5	100	25	55	598
McMaster, Alonzo J., Lockport, N. Y. Camping-vehicle	453,205	June 2	35	10	55	1156
McMaster, Joseph M., Rochester, N. Y. Toy	447,411	Mar. 3	230	59	54	1160
McMaster, Joseph M., Rochester, N. Y. Car-coupling	451,898	May 5	681	172	55	708
McMaster, Joseph M., Rochester, N. Y. Sand-driver	463,722	Nov. 24	2409	631	57	1041
McMaster, Marion E., Quincy, Ill. Corner-strap	450,472	Apr. 14	1255	306	55	245
McMaster, Marion E., Quincy, Ill. Bed-slat support	461,687	Oct. 20	1862	461	57	370
McMaster, Rufus W., Buffalo, Mo. Sash-fastener	466,253	Dec. 29	3603	923	57	1861
McMaster, Theodore, Central Bridge, N. Y. Vehicle-pole	462,058	Oct. 27	2452	607	57	492
McMenamin, Peter, Jersey City, N. J. Vehicle axle-arm	455,239	June 30	3255	826	55	1797
McMichael, Abner, assignor to McMichael & Wildman, Norristown, Pa. Cylinder for knitting-machines	456,496	July 21	1899	502	56	379
McMichael, Abner, and F. B. Wildman, Norristown, Pa. Knitting-machine	453,290	June 2	169	47	55	1180
McMichael, George C., St. Paul, Minn. Car-coupling	453,127	May 26	2725	687	55	1118
McMichael & Wildman. (See McMichael, Abner, assignor.)						
McMillan, John L., Ilion, N. Y. Type-distributor	464,163	Dec. 1	233	57, 58	57	1180
McMillan, John L., Ilion, N. Y. Type-setting machine	465,876	Dec. 29	2978	761	57	1741
McMillan, John L., Ilion, N. Y. Type-justifying machine	465,877	Dec. 29	2988	762	57	1743
McMillan, William S., Avoca, Pa. Toaster	456,275	July 21	1533	407	56	310
McMillen, Robert, Pittsburg, Pa. Sash-balance	461,506	Oct. 20	1568	385	57	316
McMorries, James, Thorp Spring, Tex. Horse-detacher	451,131	Apr. 28	2303	570	55	471
McMullin, Frank E., Hastings, Iowa. Metallic box or attachment for cultivators	444,844	Jan. 20	1360	352	54	282
McMunn, Harry W. (See Jarrell, Edwin, assignor.)						
McMurray, Alexander B., <i>et al.</i> (See Weeden, Charles L., assignor.)						
McMurray, Henry B., Burgetstown, Pa. Traction-engine	455,240	June 30	3256	826	55	1798
McMurray, James A., <i>et al.</i> (See Weeden, Charles L., assignor.)						
McMurray, Thomas J., and O. A. Busard, Marion, Ohio. Weight-pocket for sulkies	462,575	Nov. 3	562	137	57	659
McMurtry, Lillian L. W., Mattawa, Canada. Pen-bolder	445,622	Feb. 3	163	43	54	543
McMyrt, John. (See Ziegler, Frank C., assignor.)						
McNab, John H. (See Park and McNab.)						
McNab, Robert, Paterson, N. J. Clothes-line support	463,163	Nov. 17	1507	390	57	860
McNabb, John R., Kalamazoo, Mich. Bending-machine	457,789	Aug. 18	1407	365	56	815
McNair, Jonas B., Willow Hill, Ill. Bridle-bit	453,846	June 9	1031	269	55	1352
McNair, Milton H., assignor of one-half to E. Smith, Meadville, Pa. Pipe-wrench	449,627	Mar. 31	3852	964	54	1882
McNamara, James. (See Clinton and McNamara.)						
McNamara, John C., Troy, N. Y. Pulley-block	446,461	Feb. 17	1583	389	54	840
McNaughton, Richard D. (See Ferguson, Byron A., assignor.)						
McNeal, William A., assignor of two-thirds to H. M. Hartleb and C. Cheltra, Bath, Me. Thill-coupling	446,837	Feb. 17	2156	535	54	953
McNear, George W., Oakland, Cal. Electric railway	462,014	Oct. 27	2366	591	57	479
McNear, George W., Oakland, Cal. Car construction	463,071	Nov. 10	1349	349	57	822
McNeely, William C., Sacramento, Cal. Riding-pad	449,860	Apr. 7	329	84	55	66
McNeely, William T., Reno, Ill. Ditching-machine	453,089	May 26	2662	671	55	1105
McNeil, Chester, assignor to Union Special Sewing Machine Company, Chicago, Ill. Seam for fabrics	466,139	Dec. 29	3435	879	57	1830
McNeil, John. (See McNeil and Merrie.)						
McNeil, John, Cincinnati, Ohio. Ball-cock	457,005	Aug. 4	114	28	56	555
McNeil, Murdock, assignor to Empire Steam Gauge Company, Boston, Mass. Pressure- gauge	445,355	Jan. 27	2198	570	54	455
McNeil, Thomas and J., and H. Merrie, Cincinnati, Ohio. Fluid-pressure regulator	457,056	Aug. 4	182	45	56	588
McNeill, Charles D., Victoria, Tex., assignor of one-half to I. F. Kibbe. Hay-press	456,633	July 28	2129	563	56	431
McNott, Abner, Sodus Point, N. Y. Lubricator	458,813	Sept. 1	395	95	56	1141
McNott, Lyman F. (See Turley, Mary A., assignor.)						
McNevin, John, Brooklyn, N. Y., assignor of one-half to J. I. C. Clarke, New York, N. Y. Transparent picture	454,560	June 23	2079	966	55	1568
McNiece, Thomas B., and W. H. Bloom, Mansfield, Ohio. Lubricator	449,634	Mar. 31	3860	966	54	1883
McNiel, Daniel T., Kokomo, Ind. Split pulley	453,937	June 9	1151	301	55	1375
McPardland, James H., Houlton, Me. Hydraulic fire-escape and extension-ladder	456,382	July 21	1721	455	56	345
McPherson, Alexander, Oxford, Canada, assignor of one-half to Hutchinson & Huestis, Providence, R. I. Steam-engine	446,838	Feb. 17	2157	536	54	953

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McPherson, George, Lynn, Mass., assignor, by mesne assignments, to National Lasting Machine Company, Kittery, Me. Lasting-machine	459,165	Sept. 8	974	{ 237 238 239 }	{ 56 }	1262
McPherson, James A., South Mills, N. C. Corn or cotton planter and fertilizer-distributor.	466,181	Dec. 29	3494	892	57	1841
McPherson, John, Wellsville, N. Y. Device for cleaning cuspidors.	444,710	Jan. 13	1134	292	54	232
McQueen, Daniel P., assignor to S. M. McQueen, Schenectady, N. Y. Steam-boiler	463,804	Nov. 24	2521	658	57	1062
McQueen, Daniel P., assignor to S. M. McQueen, Schenectady, N. Y. Steam-boiler	463,805	Nov. 24	2523	658	57	1063
McQueen, Sarah M. (See McQueen, Daniel P., assignor.)						
McQueney, Cornelius. (See McQueney, Peter, assignor.)						
McQueney, Peter, East Akron, Ohio, assignor of one-half to C. McQueney, Clinton, Mo. Combined wall-paper clamp and brush.	451,879	May 5	654	165	55	703
McQuillan, John, Hecker, Ill. Car-coupling	453,738	June 9	881	228	55	1323
McQuillan, John, Hecker, Ill. Car-replacer.	462,152	Oct. 27	2599	647	57	520
McQuire Machinery Company. (See Nolan, Bernard, assignor.)						
McRae, John D., Baldwinsville, N. Y. Hose-clamp.	453,359	June 2	277	74	55	1200
McRae, John D., Baldwinsville, N. Y. Automatic valve.	464,582	Dec. 8	880	217	57	1313
McRoberts, Mortimer, Chicago, Ill. Lamp-hanger	444,920	Jan. 20	1527	393	54	314
McShaue, William, assignor to T. J. A., and G. McAvity, St. John, New Brunswick, Canada. Safety-valve.	448,065	Mar. 10	1300	332	54	1372
McSherry, Daniel E., Dayton, Ohio. Grain-drill	458,371	Aug. 25	2370	578	56	1003
McSherry, Edward. (See Winlund and McSherry.)						
McTavish, Duncan A., assignor of one-half to J. A. Gregg, West Bay City, Mich. Wagon-jack	465,386	Dec. 15	2209	566	57	1573
McTear, John S., Belfast Ireland. Calendar puzzle.	454,831	June 23	2523	{ 649 650 }	{ 55 }	1649
McVicker, Matthew, Philadelphia, Pa. Reversible sash	460,342	Sept. 29	2833	{ 704 705 }	{ 56 }	1641
McVitty, Richard A., Snohomish, Wash. Tool for miners' and blasters' use.	463,912	Nov. 24	2706	702	57	1096
McWhirter, John H., G. W. Langley, and J. B. Upton, Moody, Mo. Tanning	451,385	Apr. 28	2707		55	549
McWhirter, Robert B., assignor of one-fourth to J. Y. Burgoyne, Lima, Ohio. Locomotive-gearing	448,160	Mar. 10	1437	{ 367 368 }	{ 54 }	1400
Mead, Birdsell H., Cleveland, Ohio. Till-lock	444,708	Jan. 13	1131	292	54	232
Mead, Charles E., Chicago, Ill. Cuff-holder	453,199	June 2	29	9	55	1154
Mead, Charles E., and J. W. Albert, Onida, N. Y. Chnck.	455,003	June 30	2861	{ 727 728 }	{ 55 }	1721
Mead, Edward C., Elkhart, Ind. Wrench.	445,185	Jan. 27	1948	503	54	404
Mead, Edwin D., Shortsville, N. Y. Combined grain-drill and fertilizer-distributor.	455,048	June 30	2936	747	55	1735
Mead, John A., Rutland, Vt. Hand-truck	461,522	Oct. 20	1605	{ 392 393 }	{ 57 }	322
Mead, Theodore H., et al. (See Crowell, Luther C., assignor.)						
Mead, William H. (See Kleppinger and Mead.)						
Mead, William T. (See Sims, Cortland, assignor.)						
Meade, A. N. (See Hobbs, Davis D. and J. T., assignors.)						
Meador, George, Fowler, Ind. Corn-harvester	461,246	Oct. 13	1092	{ 277 278 }	{ 57 }	218
Meador, George, Coventry, assignor to T. Middlemore, Birmingham, England. Velocipede-saddle	457,654	Aug. 11	1178	302	56	762
Meadley, Jabez B., Davenport, Iowa. Stock-car	460,977	Oct. 13	681	176	57	140
Meador, Jesse M., New Concord, Ky. Broom.	449,550	Mar. 31	3707	931	54	1855
Meadowcroft, John R., assignor to J. W. Allison and H. Prevost, Montreal, Canada. Station-indicator.	454,559	June 23	2078	536	55	1568
Meadows, Henry L., Wexford, Ireland. Shelter for watchmen on vessels	447,193	Feb. 24	2788	690	54	1078
Meadville Vise Company. (See Barrett, James O., assignor.)						
Meady, Albert C., Somerville, Mass. Muffled pop safety-valve	452,230	May 12	1268	320	55	823
Meader, Dennis A., et al. (See Cleveland, Lewis W., assignor.)						
Meaker, John W., assignor to Meaker Manufacturing Company, Chicago, Ill. Fare-register.	454,370	June 16	1779	{ 463 464 465 }	{ 55 }	1503
Meaker Manufacturing Company. (See Meaker, John W., assignor.)						
Meals, Ezra S., Harrisburg, Pa. Roofer's seaming-tongs	444,498	Jan. 13	820	214	54	172
Meals, Ezra S., Harrisburg, Pa. Car-coupling	463,768	Nov. 24	2470	645	57	1052
Means, Charles J., Boston, Mass. Coin-controlled indicating striking-machine	447,890	Mar. 10	1011	255	54	1316
Means, Jennie L., Nicholasville, Ky. Ironing-board	451,945	May 12	776	196	55	733
Means, W. J., et al. (See Bntler, Howard H., assignor.)						
Meany, John, and C. H. Bodie, Santa Barbara, Cal. Self-closing faucet	444,912	Jan. 20	1514	389	54	312
Mears, Camden, Bloomsburg, Pa. Churn	461,247	Oct. 13	1094	279	57	218
Meats, John T., Taunton, Mass. Quilling-machine	444,499	Jan. 13	821	{ 214 215 }	{ 54 }	172
Meats, John T., Taunton, Mass. Stopping mechanism for carding-machines	461,171	Oct. 13	957	247	57	190
Mechanical Fabric Company. (See Blundstone, Benjamin, assignor.)						
Mechanical Specialties Manufacturing Company. (See Clark, Frank M., assignor.)						
Mechanic's Machine Company. (See Dalin, Gust, assignor.)						
Mecke, Frederick T. (See Sanderson, Mecke, and Landis.)						
Mecum, Francis M., Chico, Cal. Gang-plow	459,524	Sept. 15	1549	386	56	1381
Medart, Frederick, St. Louis, Mo. Exercising apparatus	448,353	Mar. 17	1789	452	54	1477
Medart, Frederick, St. Louis, Mo. Vaulting-horse	455,819	July 14	862	225	56	173
Medart, Philip, assignor of one-half to W. Medart, St. Louis, Mo. Belt-tightening mechanism	448,583	Mar. 17	2133	535	54	1542
Medart, Philip, assignor of one-half to W. Medart, St. Louis, Mo. Belt-pulley	458,634	Sept. 1	132	29	56	1092
Medart, Philip, assignor of one-half to W. Medart, St. Louis, Mo. Belt-pulley	458,635	Sept. 1	133	30	56	1092
Medart, Philip, assignor of one-half to W. Medart, St. Louis, Mo. Friction-clutch	459,458	Sept. 15	1440	362	56	1362
Medart, William. (See Medart, Philip, assignor.)						
Medbery, Horace J., Ballston, N. Y. Conduit for underground trolley-wires	447,338	Mar. 3	94	26	54	1136
Medbery, Horace J., Ballston, N. Y., assignor, by mesne assignments, to J. Brownell. Pail-making machine	450,590	Apr. 14	1415	349	55	279
Medbery, Horace J., Ballston, assignor to S. C. Medbery, Ballston Spa, N. Y. Machine for forming seamless tubes from pulp. (Reissue.)	11,176	July 7	709	{ 186 187 }	{ 56 }	137
Medbery, Stephen C. (See Medbery, Horace J., assignor.) (Reissue.)						
Meddick, Sanford C., Ovid, N. Y. Veterinary instrument.	462,385	Nov. 3	271	66	57	602
Mee, Charles, Cortland, N. Y. Lounge	446,874	Feb. 24	2227	554	54	976
Meech, Alfred H., Chatham, N. Y. Carpet-lining	448,978	Mar. 24	2767	699	54	1671
Meech, Alfred H., Chatham, N. Y. Carpet-lining, &c.	448,979	Mar. 24	2767	699	54	1671
Meech, Harrison B., Chicago, Ill. Electric lighting apparatus	462,444	Nov. 3	358	88	57	619

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Meehan, Edward H., assignor to O. W. Bullock & Co., Springfield, Mass. Folding tool or implement	456,221	July 21	1446	383	56	293
Meeker, George E., Meriden, Conn. Adjustable pitman	453,599	June 2	657	169	55	1272
Meeker, George E., Meriden, Conn. Spreading device for liquid blacking	457,826	Aug. 18	1466	382	56	826
Meeker, Lorenzo, assignor to Union Manufacturing and Plating Company, Chicago, Ill. Lifting-jack	454,441	June 16	1896	494	55	1526
Meeker, Stephen J., Newark, N. J., assignor to Smillie Coupler and Manufacturing Company, of New Jersey. Car-coupling	461,906	Oct. 27	2227	550	57	449
Meeker, Walter C., Jersey City, N. J. Railway-switch stand	453,245	June 2	102	28	55	1167
Meeker, William H., South Norwalk, Conn. Roof-fitting for soil-pipes	464,578	Dec. 8	875	215	57	1312
Meese, Johann, Leer, Prussia, Germany. Composition for treating the surfaces of metals	445,320	Jan. 27	2143		54	443
Megill, Edward L., Brooklyn, N. Y. Gripper-finger	448,753	Mar. 24	2435	609	54	1607
Megill, Edward L., Brooklyn, N. Y. Feed-gage for printing-presses	449,290	Mar. 31	3262	827	54	1772
Megill, Edward L., Brooklyn, N. Y. Feed-gage for printing-presses	449,909	Apr. 7	398	100	55	78
Mehaffey, Asa A., Poplar Bluff, Mo. Cnff-holder	448,532	Mar. 17	2058	515	54	1528
Méhay, Victor, Brussels, Belgium. Apparatus for opening doors	445,614	Feb. 3	150	39	54	540
Mehner, Hermann, Hackettstown, N. J. Transforming heat into mechanical energy	456,831	July 28	2456	647 648	56	493
Meier, Andrew J., Detroit, Mich. Handle for children's carriages	465,702	Dec. 22	2710	691	57	1680
Meier, Joseph, Newark, N. J. Means for transmitting power	457,206	Aug. 4	430	112	56	614
Meigs, Montgomery C., Washington, D. C. File-case	451,599	May 5	231	56	55	623
Meili, Jacob, Hemishofen, Switzerland, assignor to P. Mauser, Oberndorf am Neckar, Germany. Machine for winding springs	458,034	Aug. 18	1817	474	56	891
Meilink, Charles P., and E. H. Wadsworth, Toledo, Ohio. Hose-coupling	458,636	Sept. 1	134	30	56	1092
Meinhardt, Fredrick J., Milwaukee, Wis. Fish-hook	465,940	Dec. 29	3089	791	57	1763
Meinhardt, Wendel. (See Ford, Robert P., assignor.)						
Meinicke, Carl A. E., Clausthal, Prussia, Germany. Sizing apparatus for slime, &c	446,149	Feb. 10	1049	258	54	722
Meinzer, Fred., Cleveland, Ohio. Clothes-line reel	452,275	May 12	1337	334	55	835
Meinzer, Fred., Cleveland, Ohio. Hawser-guide	458,855	Sept. 1	475	114	56	1156
Meiring, Bernard. (See Hill and Meiring.)						
Meise, Eduard, Pittsburg, Pa. Seal-lock	445,597	Feb. 3	120	30	54	535
Meisel, Francis, Boston, Mass. Coin-operated machine for furnishing toilet-paper	459,252	Sept. 8	1106	270	56	1287
Meisenbach, Julius C., Freeport, Ill. Show-case or window-display stand	463,667	Nov. 24	2316	608	57	1024
Meisle, George, Philadelphia, Pa. Box	453,844	June 9	1029	269	55	1352
Meisler, Louis. (See Simon, Morris, assignor.)						
Meisselbach, August F. and W., Newark, N. J. Net-frame	452,381	May 19	1518	377	55	878
Meisselbach, August F. and W., Newark, N. J. Fishing-reel	462,360	Nov. 3	231	57	57	594
Meisselbach, William. (See Meisselbach, August F. and W.)						
Meister, Christian A., Allentown, Pa. Dental matrix	452,231	May 12	1269	320	55	823
Meister, Christian A., Allentown, Pa. Rubber-dam clamp	465,716	Dec. 22	2727	696	57	1683
Meister, David A. (See Oulton and Meister.)						
Meister, Robert, Carthage, and M. Remmel, Cincinnati, Ohio. Hame-tug	462,498	Nov. 3	434	106	57	633
Meitzler, George R., assignor to J. H. Foote, Cincinnati, Ohio. Reflecting money-till	445,566	Feb. 3	71	17	54	526
Meitzler, George R., and J. H. Foote, Cincinnati, Ohio; said Foote assignor to said Meitzler. Sanitary and protecting hoof-pad	461,160	Oct. 13	934	242	57	186
Melaas, Andrew O., Door Creek, Wis. Appliance for regulating the action of windmill-pumps	446,410	Feb. 10	1498	369	54	809
Melançon, Oscar, Davenport, Fla. Shingle-machine	458,775	Sept. 1	342	82, 83	56	1131
Melcher, John and J., Menasha, Wis. Trestle	453,290	June 2	29	9	55	1155
Melcher, Joseph. (See Melcher, John and J.)						
Melchior, Edward. (See Schmitz, Ernst, assignor.)						
Melchior, George F., Bellevue, Miss. Safety-cap for cotton-condensers	459,298	Sept. 8	1176	286	56	1302
Meldrum, James J. and T. F., Manchester, England. Furnace	447,891	Mar. 10	1013	255 256	54	1317
Meldrum, Thomas F. (See Meldrum, James J. and T. F.)						
Melendy, George H., assignor of one-half to Bennett Brothers, San Francisco, Cal. Plane attachment	464,701	Dec. 8	1077	267	57	1349
Melger, Joseph, et al. (See Gutte, William F., assignor.)						
Mellet, Lemuel, Somerville, Mass. Electric stop mechanism	463,198	Nov. 17	1558	405 406	57	870
Mellin, Carl J., Richmond, Va. Gridiron-valve	454,875	June 30	2598	667	55	1670
Mellin, Goodman J., and W. H. Hendrick, assignors to N. O. Nelson Manufacturing Company, St. Louis, Mo. Hydrant	461,359	Oct. 13	1268	322	57	253
Mellinger, Isaiah G., Stephenson, Va. Machine for plucking poultry	456,201	July 21	1417	376	56	228
Mellitzer, Mathias, San Francisco, Cal. Hat-pressing machine	460,395	Sept. 29	2908	726	56	1654
Mellor, John E., New York, N. Y. Door check and closer	446,548	Feb. 17	1718	421	54	866
Melloy, James B., Philadelphia, Pa. Wood-cased oil-can	460,145	Sept. 29	2527	629	56	1551
Melton, Archibald D. (See Ashby and Melton.)						
Melville, George W., Washington, D. C., assignor to W. H. Sayen and J. S. Austin, Philadelphia, Pa. Composition of matter	454,489	June 23	1969		55	1548
Memmel, Martin D. (See Sander, Hermann W., assignor.)						
Memminger, Allard, assignor of one-half to A. I. Smythe and M. E. Lopez, Charleston, S. C. Making acid phosphates	445,567	Feb. 3	72		54	526
Mende, Carl F. (See Snow, Henry E., assignor.)						
Mendelson, David, Eureka, Utah Ter. Jeweler's forceps	459,641	Sept. 15	1751	440	56	1419
Mendenhall, Amos, Unionport, Ind. Tricycle	453,151	May 26	2763	696	55	1124
Mendenhall, Charles E., and F. E. Pugh, Vermont, Ill. Bridge for guitars, &c	462,869	Nov. 10	1036	268	57	760
Mendenhall, John C. (See Williams, William, assignor.)						
Mendenhall, John C., assignor of one-half to W. Williams, Indianapolis, Ind. Collar-pad fastener	452,079	May 12	1023	258	55	775
Mendenhall, John W., assignor of one-half to G. B. Ligon, Fort Worth, Tex. Window-curtain	454,876	June 30	2599	667	55	1671
Mendenhall, Walter P. (See Rudd and Mendenhall.)						
Mendham, William. (See Chambers, Mendham, and Damborg.)						
Meneely, Charles D., Albany, N. Y. Roller-bearing	445,680	Feb. 3	277	73, 74	54	567
Meneely, Charles D., Albany, N. Y. Roller-bearing	462,719	Nov. 10	789	206	57	711
Meneely, Charles D., Albany, and J. Gibbons, assignors to Meneely Hardware Company, West Troy, N. Y. Roller-bearing	445,679	Feb. 3	275	72, 73	54	567
Meneely Hardware Company. (See Meneely and Gibbons, assignors.)						
Menge, Joseph, New Orleans, La. Rotary pump. (Reissue)	11,214	Dec. 29	3704	946	57	1880
Mengel, Charles C., Sr., Bay City, Mich. Refining crude petroleum	452,578	May 19	1837	461	55	936
Mengel, Charles C., Sr., Bay City, Mich. Refining petroleum and analogous oils	465,703	Dec. 22	2711		57	1680
Menges, Charles J., Kansas City, Mo. Sampler	444,887	Jan. 20	1463	379	54	302

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Menges, Charles J., Kansas City, Mo. Means for propelling vessels	457,426	Aug. 11	832	{ 215 216 }	56	696
Menns, Walter K., and W. J. Dudley, Everett, Mass., assignors to Waltham Electric Clock Company, of New Hampshire. Electric clock	457,030	Aug. 4	147	36	56	562
Menown, Frank, Kansas City, Mo. Compound for coating roasted coffee	448,660	Mar. 24	2279	439	54	1577
Mense, Joseph, Bordeaux, France. Self-acting lubricator	455,570	July 7	439	116	56	85
Mentel, Ferdinand L., Cincinnati, Ohio. Flushing-tank for water-closets	448,800	Mar. 24	2500	626	54	1620
Mentha, Eugène, assignor to Badische Anilin and Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Dihydroxynaphthalene	449,551	Mar. 31	3708	286	54	1855
Mentzel, Henry D., Baltimore, Md. Mechanical movement	447,964	Mar. 10	1140	{ 287 288 }	54	1340
Menze, Theodor, St. Louis, Mo. Device for slicing and grating vegetables	463,525	Nov. 17	2056	539	57	967
Menzie, John W., Huron, S. D. Speed-measure	455,571	July 7	440	117	56	85
Menzies, William J., St. Helen's, England. Sizing paper	452,143	May 12	1131	690	55	794
Mercadier, Ernest J. P., Paris, France. Telephone	447,194	Feb. 24	2789	375	54	1078
Mercadier, Ernest J. P., Paris, France. Bi-telephone	454,138	June 16	1436	539	55	1437
Mercer, Alfonso. (See Williams, John W., assignor.)						
Mercer, Edward B. S., Cape Town, South Africa. Game-board	462,870	Nov. 10	1037	269	57	760
Mercer, Robert, St. Johns, Newfoundland. Stand for printers' cases	461,360	Oct. 13	1270	322	57	253
Mercer, William F., assignor of one-half to J. A. Pfeifer, Columbus, Ohio. Wrench	455,225	June 30	3237	823	55	1794
Mercer, William R., Terre Haute, Ind. Conveyer for grain-harvesters	457,827	Aug. 18	1467	382	56	826
Mercer, William R., Terre Haute, Ind. Bicycle	460,784	Oct. 6	400	97	57	79
Mercereau, James R., Rochester, N. Y. Road-cart	456,581	July 28	2038	539	56	414
Mercury Type Writing Machine Company. (See Myers, Frederick, assignor.)						
Merredith, Edmund, assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa. Gas and air mixer	447,784	Mar. 10	830	{ 206 207 }	54	1282
Mergenthal, John A. (See Lawton and Mergenthal.)						
Meriden Britannia Company. (See McCarthy, Oliver, assignor.)						
Meriden Bronze Company. (See Johnson, Nis, assignor.)						
Meriden Bronze Company. (See Miller, John C., assignor.)						
Meriden Silver Plate Company. (See Stapley, William S., assignor.)						
Merk, Martin, Brooklyn, N. Y. Holder for Christmas-trees, &c.	458,756	Sept. 1	317	77	56	1126
Merkle, Oscar T. (See Wallace, Henry, assignor.)						
Merkle, Richard, <i>et al.</i> (See Heidel, Gustavos, assignor.)						
Merklen, Benjamin, assignor to Merklen Brothers, New York, N. Y. Lathe for making fluted wooden bodies	447,965	Mar. 10	1142	{ 288 289 }	54	1340
Merklen Brothers. (See Merklen, Benjamin, assignor.)						
Merralls, William A., Kansas City, Mo. Settling and amalgamating pan for machinery for extracting gold or other precious metals	449,552	Mar. 31	3709	{ 931 932 }	54	1855
Merralls, William A., Kansas City, Mo. Conveyer and separator-apron for mining machinery	449,942	Apr. 7	443	110	55	87
Merrall, Daniel B., Canandaigua, N. Y. Manure-spreader	448,884	Mar. 24	2631	661	54	1644
Merrall, Daniel B., Canandaigua, assignor of one-half to M. E. Benedict, Perry, N. Y. Potato-digger	449,127	Mar. 31	3005	760	54	1726
Merrall, Gaius L., Syracuse, assignor to Burt Manufacturing Company, Rochester, N. Y. Machine for cleaning the tops of cans. (Reissue)	11,175	July 7	707	{ 185 186 }	56	136
Merrall, George R., New Boston, Ill. Bow-facing oar	457,655	Aug. 11	1180	303	56	762
Merrall, Isaac L., San Francisco, Cal. Fire-proof paint	446,922	Feb. 24	2319	54	991	
Merrall, Thomas, Hindsborough, Ill. Rat-trap	450,176	Apr. 14	777	196	55	158
Merriam, Edwin G. (See Kenney, John C., assignor.)						
Merriam, Frederick J., Escanaba, Mich. Apparatus for deepening and cleaning waterways	454,877	June 30	2600	668	55	1671
Merriam, Frederick W., North Adams, Mass. Hygienic stove	444,841	Jan. 20	1356	351	54	281
Merriam, Henry P., New York, N. Y. Explosive shell	444,536	Jan. 13	875	{ 227 228 }	54	182
Merriam, Henry P., New York, N. Y. Shell for high explosives	444,537	Jan. 13	877	228	54	183
Merriam, Iram Z., Whitewater, Wis. Device for repairing broken slats	458,319	Aug. 25	2276	556	56	985
Merriam, Joseph P., Sandusky, Ohio. Machine for driving and pulling stakes and handling the same	449,374	Mar. 31	3429	862	54	1801
Merrick, George H., assignor to himself and G. Nowell, San Francisco, Cal. Faucet	450,696	Apr. 21	1634	392	55	335
Merrick, Henry C. (See Spencer, Charles F., assignor.)						
Merrick Manufacturing Company. (See Hatch, Charles, Jr., assignor.)						
Merridith, Melvin H. (See Merridith, Samuel H. and M. H.)						
Merridith, Samuel H. and M. H., West Liberty, Iowa. Machine for wiring wood fencing	451,500	May 5	89	22, 23	55	596
Merrie, Hugh. (See McNeill and Merrie.)						
Merrifield, Stephen, Bloomingdale, Mich. Wheelbarrow	458,182	Aug. 25	2037	528	56	941
Merrill, Anson P., Fall River, Mass. Bicycle-stand	458,974	Sept. 1	662	162	56	1194
Merrill, Anson P., assignor of one-half to C. A. Hicks, Fall River, Mass. Drive-chain	455,226	June 30	3239	823	55	1794
Merrill, Anson P., assignor of one-half to C. A. Hicks, Fall River, Mass. Shutter-fastener	459,512	Sept. 15	1527	382	56	1378
Merrill, Anson P., assignor of one-half to C. A. Hicks, Fall River, Mass. Shutter-spring	460,646	Oct. 6	180	46	57	38
Merrill, Anson P., assignor of one-half to C. A. Hicks, Fall River, Mass. Lock	465,941	Dec. 29	3090	792	57	1763
Merrill Brothers. (See Merrill and Bass, assignors.)						
Merrill, Charles A., and F. Stowe, Kansas City, Mo. Shoe	444,888	Jan. 20	1465	379	54	303
Merrill, Edward. (See Allain, Peter, assignor.)						
Merrill, Edward W., <i>et al.</i> (See Barclay, Robert L., assignor.)						
Merrill, Edward W., <i>et al.</i> (See Bass, James, assignor.)						
Merrill, Edward W., and J. Bass, assignors to Merrill Brothers, Brooklyn, N. Y. Making turn-buckles	462,499	Nov. 3	436	106	57	633
Merrill, Edwin C., Allegheny, Pa. Thermostatic regulator	446,583	Feb. 17	1764	435	54	875
Merrill, Edwin C., Allegheny, Pa. Burner for gas-consuming furnaces	466,174	Dec. 29	3483	889	57	1839
Merrill, Emory, Geneva, Nebr. Harrow	456,153	July 21	1342	356	56	274
Merrill, Frank H., Bound Brook, N. J. Water-raising apparatus	461,192	Oct. 13	992	254	57	197
Merrill, Frederick P., Hornellsville, N. Y. Hand-board for laying off and finishing gloves	460,023	Sept. 22	2326	583	56	1536
Merrill, Hollis W., Lynn, assignor to American Shoe Tip Company, Boston, Mass. Shoe-tip	448,247	Mar. 17	1587	405	54	1439
Merrill, Isaac C., Lewiston, Me., assignor of one-half to H. A. White, Plainville, Conn. Thill-lug	465,186	Dec. 15	1880	476	57	1511
Merrill, Manning, <i>et al.</i> (See Barclay, Robert L., assignor.)						
Merrill, Manning, <i>et al.</i> (See Bass, James, assignor.)						
Merrill, Parker, St. Louis, Mich. Railway cattle-guard	446,601	Feb. 17	1786	442	54	879
Merrill, Stephen A., Cambridge, assignor of one-half to A. S. Locke, Lowell, Mass. Culinary fork	448,155	Mar. 10	1426	364	54	1395

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Merrill, William, East Saginaw, Mich. Barrel-machine.....	454,915	June 30	2675	685 686 687 688	55	1685
Merriman, Perry P., Hardeeville, S. C. Railway-frog.....	464,032	Dec. 1	40	11	57	1144
Merriman, Seymour V., Syracuse, N. Y. Door.....	460,323	Sept. 29	2800	698	56	1635
Merriman, Willeve T., Minneapolis, Minn. Automatic street-railway switch.....	460,146	Sept. 29	2528	629	56	1581
Merritt, Amos C., Allentown, N. Y. Car-coupling.....	463,866	Nov. 24	2627	685	57	1083
Merritt, Benjamin, Newton, Mass. Cork-wiring machine.....	451,062	Apr. 28	2197	543 544	55	450
Merritt, Charles E. (See Yost and Merritt.)						
Merritt, Charles C., <i>et al.</i> (See Rogers; Charles C., assignor.)						
Merritt, Charles E., Springfield, Mass., assignor to Yost Writing Machine Company. Type-writing machine.....	448,248	Mar. 17	1589	406	54	1439
Merritt, Charles E., deceased, Springfield, Mass.; F. L. Merritt and J. G. Dunning, executors, and assignors to A. Densmore, New York, N. Y. Type-writing machine.....	465,565	Dec. 22	2503	639	57	1640
Merritt, Charles E., deceased; F. L. Merritt and J. G. Dunning, executors, and assignors to Merritt Manufacturing Company, Springfield, Mass. Type-writing machine.....	465,486	Dec. 22	2361	605	57	1614
Merritt, Charles H. (See Newman, Samuel T., assignor.)						
Merritt, Charles H. (See Starr, Frank M., assignor.)						
Merritt, Charles H., <i>et al.</i> (See Barnum and Oakley, assignors.)						
Merritt, Charles H., <i>et al.</i> (See Newman and Oakley, assignors.)						
Merritt, Fannie L., <i>et al.</i> , executors. (See Merritt, Charles E.)						
Merritt, James S. (See Tuck and Merritt.)						
Merritt, Joseph E., assignor of one-third to A. H. Parker, Bangor, Me. Twist-drill.....	451,896	May 5	678	172	55	707
Merritt Manufacturing Company. (See Merritt, Charles E., assignor.)						
Merritt, Mortimer G., Springfield, Mass., assignor to Yost Writing Machine Company, New York, N. Y. Type-writing machine.....	444,889	Jan. 20	1465	379	54	303
Merritt, William C., Washingtonville, N. Y. Wagon-jack.....	451,501	May 5	92	23	55	597
Merritt, William H. (See Armitstead, Thomas E., assignor.)						
Merritt, William H. (See Chapman, George T., assignor.)						
Merritt, William H., and J. F. Taylor, Brandon, Canada. Combined bureau and commode.....	455,883	July 14	949	248	56	191
Merrrow, Joseph M., Merrrow, Conn. Feeding mechanism for crochet-machines.....	448,722	Mar. 24	2383	597	54	1597
Merrrow, Oscar L., and A. E. Sanborn; said Merrrow assignor and said Sanborn assignor of one-half to D. and J. O'Shea, Jr., Laconia, N. H. Stocking and making the same.....	445,352	Jan. 27	2195	569	54	454
Merry, Daniel B., and W. M. Shelman, East Las Vegas, N. Mex. Ter. Spring-motor.....	414,073	Jan. 6	150	37	54	32
Merry, George G., Pawtucket, R. I., assignor to I. E. Williams, Woburn, Mass., and J. C. Dickerson, Brooklyn, N. Y. Coin-operated weighing-scale.....	453,787	June 9	965	251	55	1339
Mershon, Edward C., and H. D. Richters, East Saginaw, Mich. Pulley.....	456,131	July 28	2291	606	56	462
Mershon, Stephen L., Chicago, Ill. Drawing wire.....	460,726	Oct. 6	312	-----	57	61
Mersman, Joseph, Ottawa, Ohio. Lining for butter-tubs.....	453,495	June 2	504	129	55	1243
Mertens, Louis, Erie, Pa. Hydrant.....	453,816	June 9	1000	261	55	1345
Merunka, August. (See Schmidt, Merunka, and Werner.)						
Merz, Anton, Chicago, Ill. Shutter-worker.....	454,371	June 16	1787	466	55	1504
Merz Capsule Company. (See Heineman, Solomon E., assignor.)						
Mesker, Bernard T., and T. O. Arbegust, assignors to Mesker & Brother, St. Louis, Mo. Building-front.....	460,478	Sept. 29	3029	758	56	1677
Mesker & Brother. (See Mesker and Arbegust, assignors.)						
Mesker, Frank, St. Louis, Mo. Building-front column.....	449,553	Mar. 31	3713	932	54	1856
Mesker, Frank, St. Louis, Mo. Building-front column.....	449,554	Mar. 31	3713	932	54	1856
Mesker, Frank, assignor to Mesker & Brother, St. Louis, Mo. Building-front column.....	460,481	Sept. 29	3032	759	56	1678
Mesker, Frank, and T. O. Arbegust, St. Louis, Mo. Window-sash.....	448,354	Mar. 17	1790	452	54	1477
Mesker, Frank, and T. O. Arbegust, St. Louis, Mo. Window-frame.....	448,355	Mar. 17	1791	452	54	1477
Mesker, Frank, and T. O. Arbegust, assignors to Mesker & Brother, St. Louis, Mo. Window-frame.....	450,081	Apr. 7	639	160 161	55	125
Mesker, Frank, and T. O. Arbegust, assignors to Mesker & Brother, St. Louis, Mo. Window-frame.....	450,082	Apr. 7	640	161 162	55	125
Mesker, Frank, and T. O. Arbegust, assignors to Mesker & Brother, St. Louis, Mo. Window-frame.....	451,874	May 5	650	163	55	702
Mesker, Frank, and T. O. Arbegust, assignors to Mesker & Brother, St. Louis, Mo. Window-frame.....	451,875	May 5	651	163	55	702
Mesker, Frank, and T. O. Arbegust, assignors to Mesker & Brother, St. Louis, Mo. Window-frame.....	451,876	May 5	651	164	55	703
Mesker, Frank, and T. O. Arbegust, assignors to Mesker & Brother, St. Louis, Mo. Window-frame.....	451,877	May 5	652	164	55	703
Mesker, Frank, and T. O. Arbegust, assignors to Mesker & Brother, St. Louis, Mo. Window-sash.....	460,479	Sept. 29	3030	759	56	1677
Mesker, Frank, and T. O. Arbegust, assignors to Mesker & Brother, St. Louis, Mo. Window-frame construction.....	460,480	Sept. 29	3031	759	56	1678
Messaz, John, Geneva, Switzerland. Lapidary's tool.....	457,866	Aug. 18	1535	399	56	839
Messer, Charles, Beloit, Wis. Saw-set.....	455,581	Dec. 22	2530	644	57	1645
Messer, Frederick A., and W. F. Thorpe, London, England. Cash indicator and register.....	453,122	May 26	2714	684 685	55	1116
Messer, Frederick A., and W. F. Thorpe, London, England. Means for checking and recording money payments.....	463,526	Nov. 17	2058	539 540 541	57	967
Messer, Frederick A., and W. F. Thorpe, London, England. Means for checking and recording money payments.....	463,527	Nov. 17	2063	541 542 543 544	57	968
Messer, Horace W., Galt, Canada. Shirt.....	456,999	Aug. 4	108	27	56	554
Messina, Felix, New Orleans, La. Life-boat.....	453,048	May 26	2590	654	55	1092
Messina, John A., and P. Burgos, Key West, Fla. Cigar-maker's gage.....	452,187	May 12	1206	305	55	809
Messina, John A., and C. S. B. Moffat, Key West, Fla. Lamp-chimney cleaner.....	453,316	June 2	212	56	55	1187
Messinger, Josef, and G. Vortmann, Aix-la-Chapelle, assignors, by mesne assignments, to E. N. Dickerson, New York, N. Y. Compound of iodine with thymol.....	447,875	Feb. 24	2238	-----	54	976
Messinger, William T., Boston, Mass. Pipe-coupling and valve.....	444,451	Jan. 13	730	191	54	153
Messinger, William T., Boston, assignor to G. D. Wildes, Ipswich, Mass. Pipe-coupling and check-valve.....	455,633	July 7	542	141	56	105
Messmer, Andrew, Cincinnati, Ohio. Candle-holder.....	447,339	Mar. 3	96	26	54	1136
Metal Base Electrotpe Company. (See Wolfe, Jacob C., assignor.)						
Metallic Drawing Roll Company. (See Dunham and McKemie, assignors.)						
Metcalf, Arthur S. E., Amberg, Wis. Bread-board.....	457,052	Aug. 4	175	44	56	567

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Metcalf, Charles A. (See Tyson, Bryan, assignor.)						
Metcalf, Foster M., assignor to Battle Creek Machinery Company, Battle Creek, Mich. Steam, water, and fluid valve	452,312	May 12	1388	345	55	844
Metcalfe, Alexander R. (See Cochran, Edward A., assignor.)						
Metcalfe, William S. (See Dennis, Metcalfe, and Sherman.)						
Metherell, John, assignor to himself and C. O. Thomas, Sr., Murfreesborough, Tenn. Machine for scalping and bolting flour	457,656	Aug. 11	1181	{ 303 304 }	56	762
Metric Metal Company. (See Stidham and Wallace, assignors.)						
Mets, John D., Dubuque, Iowa. Flat-opening book	453,123	May 26	2718	685	55	1117
Mettler, Eugene G., assignor of one-half to F. L. McGahan, Indianapolis, and H. C. Bailey, Edinburg, Ind. Electric signaling apparatus	461,104	Oct. 13	857	221	57	172
Mettler, Samuel, et al. (See Moore, Marion, assignor.)						
Metts, Oliver V. (See Heath and Metts.)						
Metz, Andrew. (See Fitch, William L., assignor.)						
Metz, Bernhard, assignor of one-third to E. D. Graff, New York, N. Y. Type-writing machine	457,563	Aug. 11	1049	269	56	737
Metz, Julius, assignor of three-fourths to J. W. Mitchell and H. L. Aulls, Denver, Colo. Necktie-fastener	450,248	Apr. 14	911	225	55	181
Metz, Robert P., Philadelphia, Pa. Cover for commodes or other pails	459,253	Sept. 8	1108	270	56	1288
Metzger, Charles E., Williamsport, Pa. Umbrella or parasol	460,791	Oct. 6	408	99	57	81
Metzger, Edward. (See Peters, James, assignor.)						
Metzger, Edward J., Elmira, N. Y. Scraping implement	462,445	Nov. 3	359	89	57	619
Metzler, Paul G. (See Harper and Metzler.)						
Mewes, Richard W., Newcastle-upon-Tyne, England. Valve for reversing engines	456,832	July 28	2465	648	56	493
Mey, Frederick H. C., Buffalo, N. Y. Grain-drier	456,732	July 28	2293	{ 606 607 }	56	463
Meyberg, Max, Los Angeles, Cal. Chandelier-display hanger	464,284	Dec. 1	444	106	57	1219
Meyenberg, Franz P., assignor to United States Fire Proofing Company, Chicago, Ill. Fire-proof structure	460,209	Sept. 29	2621	655	56	1600
Meyenberg, Franz P., assignor to United States Fire Proofing Company, Chicago, Ill. Fire-proof building	460,210	Sept. 29	2623	655	56	1600
Meyer, August, St. Louis, Mo. Street-lamp	448,533	Mar. 17	2059	515	54	1528
Meyer, Bernhard H., and P. Huppman-Gerard, assignors of one-third to F. A. Ford, New York, N. Y. Cigar-mold	446,000	Feb. 10	807	195	54	678
Meyer, Charles J. L., Fond du Lac, Wis. Matching-machine	462,097	Oct. 27	2507	{ 623 624 }	57	502
Meyer, Charles J. L., Fond du Lac, Wis. Matching-machine	462,098	Oct. 27	2512	624	57	504
Meyer, Ferdinand C., Prairie Town, Ill. Device for winding barb-wire	465,281	Dec. 15	2029	518	57	1539
Meyer, Frederick, Chicago, Ill. Car-brake	456,674	July 28	2198	{ 582 583 }	56	445
Meyer, Frederick, assignor to Duplex Rotary Engine Company, Chicago, Ill. Rotary engine	461,130	Oct. 13	887	230	57	178
Meyer, Frederick, assignor to Duplex Rotary Engine Company, Chicago, Ill. Rotary steam-engine	464,285	Dec. 1	445	{ 106 107 }	57	1219
Meyer, Frederick, Englewood, J. S. Kiehl, Chicago, and A. Grant, Riverdale, assignors to Duplex Rotary Engine Company, Chicago, Ill. Rotary steam-engine	461,161	Oct. 13	936	{ 242 243 }	57	186
Meyer, Georg F., Brunswick, Germany. Apparatus for extracting salt from meats	444,500	Jan. 13	823	215	54	172
Meyer, George A. (See Fickermann, William, assignor.)						
Meyer, George U., Providence, R. I. Seamless plated wire	445,814	Feb. 3	509	122	54	611
Meyer, George U., assignor to Burdon Seamless Filled Wire Company, Providence, R. I. Ingot for plated wire	460,920	Oct. 6	598	151	57	117
Meyer, George U., assignor to Burdon Seamless Filled Wire Company, Providence, R. I. Making ingots for seamless plated wire	460,921	Oct. 6	599	152	57	117
Meyer & Hofman. (See Ritter, Otto, assignor.)						
Meyer, John A., Chicago, Ill. Table	451,946	May 12	776	197	55	733
Meyer, John P., St. Louis, Mo. Construction and paving block	452,412	May 19	1573	390	55	889
Meyer, John W., Rock Island, Ill. Window-shade or map exhibitor	446,743	Feb. 17	2010	501	54	922
Meyer, John W., Rock Island, Ill., assignor to T. J. Rodman. Machine for making paste	457,616	Aug. 11	1135	{ 289 290 }	56	753
Meyer, Julius, New York, N. Y., and C. Binder, Chicago, Ill. Pole for electric wires	449,375	Mar. 31	3430	862	54	1801
Meyer-Kreis, Alfred, St. Gall, Switzerland. Embroidered fabric	452,579	May 19	1838	461	55	936
Meyer, Leonhart. (See Missel and Meyer.)						
Meyer, Otto, New York, N. Y. Producing surprise pictures	456,047	July 14	1190	.....	56	234
Meyer, Paul, Pittsburg, Pa. Pliers	460,590	Oct. 6	73	20	57	16
Meyer-Sniffen Company. (See Bunting, William, Jr., assignor.)						
Meyer, William. (See Bertling, Wockenfuss, and Meyer.)						
Meyrhofer, Tobias. (See Clover, Seth, assignor.)						
Meyers, Ernest, Taunton, Mass. Die-milling machine	453,018	May 26	2542	643	55	1082
Meyers, Frank B., Fort Plain, N. Y. Hydrocarbon-burner	455,634	July 7	543	142	56	105
Meyerson, Albert. (See White, Louis H., assignor.)						
Meylan, Eugene, and W. C. Reckniewski, assignors to R. Heurtey, Paris, France. Electric meter	457,453	Aug. 11	874	{ 226 227 }	56	703
Meyrowitz, Emil B., Ridgefield, N. J., and F. Buchhop, New York, N. Y.; said Buchhop assignor to said Meyrowitz. Electric motor	447,734	Mar. 3	731	183	54	1256
Mica Asbetite Insulating Company. (See Kimble, Smith W., assignor.)						
Michael, Lewis O., Birmingham, England. Boot-block	463,404	Nov. 17	1898	495	57	934
Michalitschke, Anton and J., San Francisco, Cal. Bundle-wrapper for cigars	462,099	Oct. 27	2516	625	57	504
Michalitschke, Joseph. (See Michalitschke, Anton and J.)						
Michaud, Gilbert, New York, N. Y. Sleeper-clamp	466,308	Dec. 29	3694	943	57	1878
Michaud, Jules, Paris, France. Chromatic-printing machine	449,128	Mar. 31	3007	{ 760 761 }	54	1726
Michaud, Jules, Paris, France. Stop-cylinder printing-machine	455,901	July 14	972	253	56	195
Michels, Michel, and J. Pauly, Chicago, Ill. Alarm-lock	459,069	Sept. 8	820	199	56	1232
Michels, Michel, and J. Pauly, Chicago, Ill. Feed-bag	459,759	Sept. 22	1929	486	56	1461
Michels, Michel, and J. Pauly, Chicago, Ill. Wheel	460,211	Sept. 29	2624	655	56	1601
Michelson, Albert A., Worcester, Mass. Optical telemeter	452,060	May 12	980	{ 249 250 }	55	770
Michener, James B., and T. L. Varus, Kokomo, Ind. Grain-meter	444,709	Jan. 13	1133	292	54	232
Michigan Stove Company. (See Keep, William J., assignor.)						
Michl, Franz, New York, N. Y. Coin-holder	462,220	Oct. 27	2714	684	57	542
Mick, John E., Portsmouth, Ohio. Hitching-buckle	450,674	Apr. 21	1602	3-5	55	329
Mick, Leonard L., M. Kursteiner, and E. Ianzén, Paris, France. Embroidering-machine	451,831	May 5	586	145	55	691
Mickel, Edward P., Lincoln, Nebr. Stereotype plate and base	465,532	Dec. 22	2449	624	57	1629

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Mickel, Orin E. (See Dodge, William L. and W. C., assignors.)						
Mickle, James, assignor of one-half to J. F. Harris, Fort Edward, N. Y. Anti-interfering device for horses	460,396	Sept. 29	2909	727	56	1655
Middlebrook, Charles, Bromley, England. Coin-operated machine	453,496	June 2	505	129 130	55	1243
Middlebrooke, Hobart C., Rock Rapids, Iowa. Banjo	463,952	Nov. 24	2762	716	57	1108
Middlebrooke, Hobart C., Rock Rapids, Iowa. Banjo	463,953	Nov. 24	2763	716	57	1108
Middlebrooke, Hobart C., Rock Rapids, Iowa. Finger-board for stringed instruments	463,954	Nov. 24	2764	716	57	1109
Middlekauff, Ellsworth D., Minneapolis, Minn. Ice-cream freezer	458,119	Aug. 18	1939	504	56	916
Middlekauff, Ellsworth D., Stockton, Cal. Sickle-grinder	460,212	Sept. 29	2625	655	56	1601
Middlemore, Thomas. (See Brooks, Frederick, assignor.)						
Middlemore, Thomas. (See Meader, George, assignor.)						
Middleton, Abram, assignor of two-thirds to L. J. Haworth and W. H. Bishop, Russiaville, Ind. Spring-saw helper	457,000	Aug. 4	109	27	56	554
Middleton, Arthur. (See Proctor, Fraser, Carter, and Middleton.)						
Middleton, Charles S. (See Curtiss and Middleton.)						
Middleton, Robert, and H. T. Jones, Manchester, England. Selvage of cotton pile goods	445,228	Jan. 27	2014	519	54	417
Middleton, William B., Lebanon, Pa. Turn-buckle	447,077	Feb. 24	2575	639	54	1088
Middleton, William B., Lebanon, Pa. Rolls for rolling turn-buckle blanks	447,237	Feb. 24	2868	712	54	1094
Middleton, William B., Lancaster, Pa. Treating steel	448,534	Mar. 17	2060		54	1528
Middletown Plate Company. (See Lewis, Charles R., assignor.)						
Midgley, Thomas. (See Emerson, James E., assignor.)						
Midgley, Thomas. (See Emerson and Midgley.)						
Midgley, Thomas. (See Lynch and Midgley.)						
Mieding, William, New Orleans, La. Lubricator	464,799	Dec. 8	1230	306	57	1378
Mieg, Armand, Leipsic, Germany. Projectile	463,528	Nov. 17	2069	544	57	968
Miessner, August. (See Miessner, Charles, A., and W.)						
Miessner, Charles, A., and W., Huntingburg, Ind. Rotary steam-engine	453,935	June 9	1149	300	55	1375
Miessner, William. (See Miessner, Charles, A., and W.)						
Mighell, Frank E., Aurora, Ill. Clothes-pounder	446,625	Feb. 17	1823	450	54	886
Mighell, Franklin P., Sugar Grove, Ill. Clothes-pounder	449,555	Mar. 31	3714	933	54	1856
Mikesell, David M. (See McKenzie and Mikesell.)						
Miklas, Alois, Vienna, Austria-Hungary, assignor to G. Borgfeldt & Co., New York, N. Y. Toy	453,201	June 2	31	9	55	1155
Miksch, Wenzel A., Philipsburg, assignor to Dixon-Woods Company, Pittsburg, Pa. Manufacture of enameled brick	461,980	Oct. 27	2340		57	471
Milam, Robert R. (See McClendon, John J., assignor.)						
Milam, William A. (See Frazier and Milam.)						
Milbradt, Gustave A., assignor of one-half to C. Treadwell, St. Paul, Minn. Cash-carrier	449,082	Mar. 24	2925	742	54	1701
Milburn, James A., assignor to himself and W. W. Vick, Etbridge, Tenn. Bolt-holder	455,721	July 7	688	181	56	132
Milburn, John H., Schuylerville, N. Y. Poise and price scale attachment for weighing-scales	460,689	Oct. 6	257	63	57	51
Miles, Don D., Aurora, Ill. Grain-car door	463,637	Nov. 24	2270	598	57	1016
Miles, Edward D., Iconium, Mo. Combined pocket-knife and physician's scale	460,147	Sept. 29	2529	629	56	1581
Miles, Francis A., Wyminswold, and A. C. Arter, Barham, England. Potato-planter	459,966	Sept. 22	2246	564 565	56	1521
Miles, George, Wellesley, Mass. Balanced three-way valve	461,981	Oct. 27	2341	580 581	57	471
Miles, George, Wellesley, Mass. Pneumatic carrier	462,266	Nov. 3	72	17, 18	57	565
Miles, John, et al. (See Gooch, Mike M., assignor.)						
Miles, Luella, Lawrence, Mass. Ointment	451,307	Apr. 28	2601		55	529
Miles, Purches, Brooklyn, N. Y. Wire lathing	445,353	Jan. 27	2196	570	54	455
Miles, Purches, Brooklyn, N. Y. Machine for making wardrobe-hooks	452,715	May 19	2052	515 516 517 518	55	980
Miles, Purches, Brooklyn, N. Y. Wire lathing	459,014	Sept. 8	732	178	56	1216
Miles, Purches, Brooklyn, N. Y. Making fencing	462,500	Nov. 3	437	107	57	633
Miles, Samuel J., assignor to F. Siegel, Chicago, Ill. Grate for burning hard-coal slack	454,490	June 23	1970	513	55	1548
Miles, Sidney S. (See Amos, George W., assignor.)						
Miley, William H., assignor to Fall River Machine Company, Fall River, Mass. Ring-rail for spinning-machines	459,760	Sept. 22	1930	486	56	1461
Millan, Henry, et al. (See Wells, James E., assignor.)						
Millard, Edward F., Jackson, Mich. Producing ground wood pulp	449,586	Mar. 31	3765		54	1865
Millard, Edward F., Jackson, Mich. Machine for separating ground wood pulp into different grades	457,089	Aug. 4	246	64	56	580
Millen, George H., D. Casey, and J. H. Manton, Hull, Canada. Machine for filling match-racks	449,376	Mar. 31	3431	863	54	1801
Millen, George H., D. Casey, and J. H. Manton, Hull, Canada. Machine for removing matches from dipping-racks	449,377	Mar. 31	3433	864	54	1802
Millen, James H., Bloomington, Ind. Filter	445,568	Feb. 3	73	17	54	526
Miller, Albert F., Pittsburg, Kans. Brick-machine	459,642	Sept. 15	1752	440 441	56	1419
Miller, Amanuel M., Fairfield, Tex. Attachment for plows	465,187	Dec. 15	1881	477	57	1511
Miller, Amos P., El Dorado, Ohio. Straw-stacking attachment for thrashing-machines	449,556	Mar. 31	3715	933	54	1856
Miller, Andrew C., Auburn, N. Y. Machine for balling twine	462,984	Nov. 10	1216	317	57	795
Miller, Andrew C., Auburn, N. Y. Machine for balling cord, &c	465,282	Dec. 15	2031	518 519	57	1539
Miller, Andrew C., and G. F. Wells, Auburn, N. Y. Dental engine	462,267	Nov. 3	74	18	57	566
Miller, Annie J., Dansville, N. Y. Catamental sack	458,035	Aug. 18	1818	474	56	892
Miller, Arthur W., Capon Road Depot, Va. Wagon-brake	457,001	Aug. 4	110	27	56	554
Miller, August. (See Feine, Koch, and Miller.)						
Miller, August H., Cleveland, Ohio. Machine for cutting oval holes in marble slabs	459,787	Sept. 22	1969	496	56	1468
Miller, Benjamin F. D., Wooster, Ohio. Music-leaf turner	463,529	Nov. 17	2070	544 545	57	968
Miller, Cassius M., Canton, Ohio. Duplex steam-pump	448,356	Mar. 17	1791	435	54	1478
Miller, Charles, Washington, Mo. Pipe-wrench	461,032	Oct. 13	760	195	57	154
Miller, Charles, assignor to C. Wheeler, Jr., Auburn, N. Y. Clothes-wringer	459,341	Sept. 8	1248	307	56	1316
Miller, Charles A., and A. M. Griswold, Monaca, Ill. Ball-bearing for vehicle-axles	460,878	Oct. 6	524	134	57	103
Miller, Charles B., et al. (See Miller, Henry L., assignor.)						
Miller, Charles B., New York, N. Y. Anti-friction alloy	456,898	July 28	2571		56	512
Miller, Charles F., Lancaster, Pa. Refrigerating apparatus	462,904	Nov. 10	1092	283	57	771
Miller, Charles F., and A. W. Carlile, Lancaster, Pa.; said Carlile assignor to said Miller. Refrigerator	453,651	June 9	746	192	55	1297

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Miller, Charles H., Erie, Pa. Stove or range door opening and closing mechanism. (Reissue)	11,174	July 7	705	185	56	136
Miller, Charles H., Fort Wayne, Ind. Fishing-reel	463,319	Nov. 17	1749	458	57	906
Miller, Charles W., Canton, Ohio. Burnishing-machine	446,923	Feb. 24	2319	576	54	991
Miller, Christopher J., Marion, Ohio. Slaw and ensilage cutter	459,459	Sept. 15	1442	362	56	1362
Miller & Company, E. (See Johnson, John I., assignor.)						
Miller & Company, Edward. (See Rhind, Frank, assignor.)						
Miller Company, William P. (See Miller, William P., assignor.)						
Miller, Cornelius, Warwick, assignor of one-half to G. W. Pettus, Providence, R. I. Reservoir-brush	451,974	May 12	818	208	55	741
Miller, David C., et al. (See Rogers, George R., assignor.)						
Miller, David M. (See White and Miller.)						
Miller, David W., assignor of one-half to F. J. Miller, Marion, Iowa, W. J. Markham, Sionx Falls, S. D., and M. E. Robinson, Chicago, Ill. Railway-rail joint	452,939	May 26	2424	612	55	1059
Miller, Dewitt C. (See Pedersen and Miller.)						
Miller, Edgar, Chattanooga, Tenn. Street vending-cabinet	462,320	Nov. 3	162	41	57	581
Miller, Edward B., et al. (See Krotz, Alvaro S., assignor.)						
Miller, Edward C., et al. (See Miller, Henry L., assignor.)						
Miller, Edward L., and J. J. Roshong, Canton, Ohio. Permutation-lock	463,685	Nov. 24	2347	615	57	1029
Miller, Edwin F., Williamsburg, Mass. Wire-tightener	446,688	Feb. 17	1926	480	54	905
Miller, Ferdinand C., and J. H. Walker, Oregon City, Oreg. Middlings-purifier and dust-collector	446,876	Feb. 24	2229	554 555 556	54	976
Miller, Florence S., Sibley, Ill. Dish-washer	455,988	July 14	1103	290	56	218
Miller, Flory, Napoleon, Ohio. Wind-wheel	449,489	Mar. 31	3621	911	54	1839
Miller, Frank. (See Seaton and Miller.)						
Miller, Frank, Cleveland, Ohio. Friction-clutch	457,440	Aug. 11	852	320	56	699
Miller, Frank, Stamford, Conn. Spring-frame for bicycles	460,179	Sept. 29	2575	642	56	1591
Miller, Frank, Stamford, Conn. Spring-fork for bicycles	460,180	Sept. 29	2576	642	56	1592
Miller, Frank, assignor of one-half to W. J. Shively and J. R. Keenan, Batesville, Ohio. Car-coupling	449,633	Mar. 31	3858	966	54	1883
Miller, Frank M., Morristown, N. J., assignor to Ideal Sanitary Company, of New York. Feculent receiver	453,152	May 26	2766	696 697	53	1125
Miller, Frank M., Morristown, N. J., assignor to Ideal Sanitary Company, of New York. Feculent receiver	453,153	May 26	2768	697	53	1125
Miller, Fred J., et al. (See Miller, David W., assignor.)						
Miller, Fred J., Plainfield, N. J., and J. A. Hill, New York, N. Y. Link-valve-motion model	461,772	Oct. 20	2003	494 495	57	397
Miller, Fred W., Caledonia, N. Y. Bean-harvester	452,440	May 19	1618	401	55	897
Miller, Frederick. (See Coyan, Milton S., assignor.)						
Miller, Frederick C., Leadville, Colo. Ore-washer	451,989	Apr. 28	2577	636	55	524
Miller, Frederick H., Newport, Ky. Cigar-bunching machine	465,283	Dec. 15	2033	519	57	1540
Miller, George E., Lynn, Mass. Electric signaling apparatus	464,979	Dec. 15	1504	377	57	1442
Miller, George E., Lynn, assignor of one-fourth to W. D. Northend, Salem, Mass. Railway-crossing gate	464,461	Dec. 1	694	170	57	1267
Miller, George F., assignor of one-half to C. F. Warriner, Jacksonville, Fla. Machine for the extraction of fibers	451,063	Apr. 28	2200	544	55	451
Miller, George W., Meriden, Conn. Jaw for clamping-tools	448,451	Mar. 17	1942	489	54	1506
Miller, George W., Meriden, Conn. Hand-vise	448,452	Mar. 17	1942	489	54	1506
Miller, George W., Lexington, Nebr. Measuring-faucet	451,129	Apr. 28	2300	570	55	471
Miller, Harry. (See Knoepfel and Miller.)						
Miller, Harvey, Waterloo, Iowa. Fly-brush	451,290	Apr. 28	2379	636	55	525
Miller, Henry, Chappaqua, N. Y. Folding chair	444,101	Jan. 6	190	47	54	39
Miller, Henry J., Goshen, N. Y. Road-cart	459,098	Sept. 8	874	210 211	56	1243
Miller, Henry J., Providence, R. I. Pencil-sharpener	460,753	Oct. 6	352	86	57	69
Miller, Henry L., assignor to himself, C. B. and E. C. Miller, Chicago, Ill. Loose-pulley lubricator	450,519	Apr. 14	1325	325	55	261
Miller, Herbert W., London, England. Electric meter	452,276	May 12	1338	334	55	835
Miller, Hezekiah, Brayton, assignor of one-half to J. B. Hash, Exira, Iowa. Fence-wire-spool carrier and winder	450,030	Apr. 7	569	142	56	110
Miller, Hinson V., Jonesville, Mich. Spring-tooth harrow	444,248	Jan. 6	431	108	54	85
Miller, Isaac N., Cincinnati, Ohio. Electrical protector	448,980	Mar. 24	2768	700	54	1671
Miller, Jacob B., McCune, Kans. Churn-motor	464,226	Dec. 1	346	83, 84	57	1199
Miller, Jacob C. (See Manchester and Miller.)						
Miller, Jacob W., assignor of one-half to F. Retterer, Marion, Ohio. Gate	454,802	June 23	2467	634	55	1640
Miller, James, Detroit, Mich. Car-door	460,309	Sept. 29	2778	692	56	1630
Miller, James A., Chicago, Ill. Mail-pouch	459,761	Sept. 22	1931	487	56	1461
Miller, James B., Kent, Ohio. Permutation-lock	446,071	Feb. 10	919	224	54	698
Miller, James B., Kent, Ohio. Permutation-lock	447,575	Mar. 3	500	123	54	1211
Miller, James B., assignor of one-half to E. R. Robinson, A. Oliver, D. E. Carleton, and G. F. Hix, Rockland, Me. Shackle for vessel-chains	466,080	Dec. 29	3333	851	57	1810
Miller, James K., Emporia, Kans. Rope-hook	447,618	Mar. 3	568	140	54	1225
Miller, James K., Emporia, Kans. Shock-compressor	447,619	Mar. 3	569	141	54	1225
Miller, James K. P. (See Collier and Miller.)						
Miller, James S., assignor to Stearns Manufacturing Company, Erie, Pa. Lumber-edging machine	462,213	Oct. 27	2700	680	57	538
Miller, Joel, Philadelphia, Pa. Horseshoe	465,674	Dec. 22	2673	682	57	1672
Miller, John. (See Harper, Lawrence A., assignor.)						
Miller, John, assignor of one-half to J. G. Oberneyre, Cincinnati, Ohio. Composition for coating bricks	446,877	Feb. 24	2237		54	977
Miller, John A., St. Louis, Mo. Vehicle-wrench	445,451	Jan. 27	2334	606	54	481
Miller, John A., St. Louis, Mo. Wrench	454,222	June 16	1560	410	55	1462
Miller, John C., assignor to Thomas Manufacturing Company, Springfield, Ohio. Clutch	449,378	Mar. 31	3433	864	54	1802
Miller, John C., assignor to Meriden Bronze Company, Meriden, Conn. Wick-raiser for central-draft lamps	456,334	July 21	1632	432	56	329
Miller, John E. A., San Francisco, Cal. Annunciator and indicator system	447,195	Feb. 24	2791	690	54	1079
Miller, John H., Millersburg, Ind. Gate	462,985	Nov. 10	1219	318	57	795
Miller, John H., Newark, Ohio. Baking-oven	463,067	Nov. 10	1344	348	57	821
Miller, John J., Pittsburg, Pa. Conduit for underground or subway electric systems	454,177	June 16	1495	392	55	1449
Miller, John J., Pittsburg, Pa. Motor-car for underground electric systems	454,178	June 16	1497	392	55	1449
Miller, John J., Pittsburg, Pa. Rail and road-bed for traction-roads	454,179	June 16	1499	393	55	1449
Miller, Joseph P., Haddonfield, N. J. Brick-machine	451,714	May 5	411	100	55	657

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Miller, Katie V., Lewisburg, Ohio. Telegraph-table	462,720	Nov. 10	790	206	57	712
Miller Knoblock Wagon Company. (See Rowman, Frederick E., assignor.)						
Miller, Lee, Elizabeth, N. J. Egg-cell case	465,065	Dec. 15	1669	425	57	1472
Miller, Levi H., assignor of one-half to W. P. Rose, Dublin, Tex. Tobacco substitute	448,925	Mar. 24	2690		54	1656
Miller, Lewis, Akron, Ohio. Finger-bar and guard-finger	449,802	Apr. 7	246	62	55	49
Miller, Lewis, Akron, Ohio. Grain-binding harvester	451,975	May 12	818	208	55	741
Miller, Lewis, Mexico, N. Y. Spring-vehicle	458,791	Sept. 1	364	88	56	1135
Miller, Lewis, Philadelphia, Pa. Hydraulic press	466,175	Dec. 29	3484	890	57	1839
Miller, Lewis and L. J., Philadelphia, Pa. Hydraulic press	466,176	Dec. 29	3486	890	57	1839
Miller, Lewis J. (See Miller, Lewis and L. J.)						
Miller, Lewis J., Philadelphia, Pa. Hydraulic press	459,816	Sept. 22	2021	506	56	1478
Miller, Lewis W., Bear, Ark. Ironing-table	448,661	Mar. 24	2279	571	54	1577
Miller, Luther A., Weatherford, Tex. Vibrating churn	454,752	June 23	2389	613	55	1626
Miller, Marcus A., St. Louis, Mo., assignor of one-half to G. E. Green, Binghamton, N. Y. Memorandum-book	465,412	Dec. 15	2245	576	57	1580
Miller, Martin B., assignor of one-half to T. Cornman, Carlisle, Pa. Well-drilling machine	444,221	Jan. 6	390	97, 98	54	78
Miller Match Company. (See Pitt and Neef, assignors.)						
Miller, May H. (See Leighton, James H., assignor.)						
Miller, Nathan H., Rushville, Ohio. Hay-rake	461,765	Oct. 20	1989	491	57	395
Miller, Oliver A. (See Gordon, William, assignor.)						
Miller, Oliver D. (See Bishop and Miller.)						
Miller, Peter I., Cleveland, Ohio. Hot-air register	458,403	Aug. 25	2423	590	56	1013
Miller, R. W., et al. (See Jackson, William, assignor.)						
Miller, Robert S., assignor of one-half to J. W. Carrier, Wilmington, Del. Coating composition for the covering of steam-pipes	465,717	Dec. 22	2728		57	1683
Miller, Robert S., assignor of one-half to J. W. Carrier, Wilmington, Del. Boiler and pipe covering	465,718	Dec. 22	2729		57	1683
Miller, Rosalie, New York, N. Y. Preserve-jar lifter	462,361	Nov. 3	233	57	57	595
Miller, Samuel, assignor to E. Glover, Buxton, England. Galvanic battery	466,177	Dec. 29	3487	890	57	1840
Miller, Sidney W., Pasadena, Cal. Flush-tank	449,083	Mar. 24	2929	891	54	1702
Miller, Simon. (See MacLaughlin, John R., assignor.)						
Miller, Simon, Philadelphia, Pa. Shirt	444,525	Jan. 13	857	223	54	179
Miller, Thomas, Salt Lake City, Utah Ter. Flux for smelting or reducing ores	456,311	July 21	1596		56	322
Miller, Thomas S., New York, N. Y. Rope transmission	444,919	Jan. 20	1526	392	54	314
Miller, Thomas S., New York, N. Y. Hoisting and conveying apparatus	447,892	Mar. 10	1015	256	54	1317
Miller, Thomas S., New York, N. Y. Conveying apparatus	458,183	Aug. 25	2038	528	56	941
Miller, Viola A., Aurora, Mo. Floor-scrubber	464,376	Dec. 1	578	141	57	1244
Miller, William A., New York, N. Y. Ink-well	444,365	Jan. 6	594	153	54	118
Miller, William F., Evanston, Ill. Automatic draw-bridge gate	462,012	Oct. 27	2384	591	57	479
Miller, William H., South Bend, Ind. Nozzle for street-sprinklers	456,767	July 28	2364	622	56	475
Miller, William O., Quincy, Ill. Harness-saddle	444,761	Jan. 13	1232	320	54	249
Miller, William O., Quincy, Ill. Adjustable harness-tree	444,762	Jan. 13	1232	320	54	249
Miller, William P., assignor to W. P. Miller Company, Brooklyn, N. Y. Lubricator	448,785	Mar. 24	2481	620	54	1616
Miller, William P., assignor to T. D. Richardson, Philadelphia, Pa. Stand for displaying boxes, &c.	462,084	Oct. 27	2483	616	57	498
Millerick, John F. A., San Francisco, Cal. Gate	447,013	Feb. 24	2458	612	54	1016
Milles, George W. (See Hamilton, Frank C., assignor.)						
Millet, John W., assignor to A. Dolge, Dolgeville, N. Y. Fulling-machine	448,535	Mar. 17	2061	515	54	1528
Millet, John W., assignor to A. Dolge, Dolgeville, N. Y. Fulling-machine	448,536	Mar. 17	2062	515	54	1529
Millet, John W., assignor to A. Dolge, Dolgeville, N. Y. Fulling-machine	448,537	Mar. 17	2063	516	54	1529
Millier, John W., assignor to A. Dolge, Dolgeville, N. Y. Fulling-machine				517		
Milliser & Co., M. (See Cussen, William J., assignor.)						
Milliard, Anda, assignor to himself and W. H. Parkhurst, Buffalo, N. Y. Truss	456,495	July 21	1898	502	56	379
Milligan, John F. (See Fosburgh and Milligan.)						
Milliken, Annie B., Chicago, Ill. Brace for folding seats	464,511	Dec. 8	781	191	57	1293
Milliken, Foster, New York, N. Y. Electric-railway pole	451,832	May 5	588	145	55	691
Milliken, Foster, New York, N. Y. Derrick	453,087	May 26	2660	671	55	1104
Milliken, George, Oneco, assignor of one-half to W. H. McCall, Yellow Creek, Ill. Printer's quoin	458,426	Aug. 25	2454	597	56	1019
Milliken, George F., assignor to Gamewell Auxiliary Fire Alarm Company, Boston, Mass. Fire-alarm telegraph	453,982	June 9	1215	316	55	1388
Milliken, John A., Brooklyn, assignor of one-half to M. Rubens, New York, N. Y. Ticket printing and registering machine	457,207	Aug. 4	431	112	56	614
Milliron, Samuel F., Baltimore, Md. Adjustable attachment for reins	466,102	Dec. 29	3368	860	57	1817
Mills, Henry L., trustee. (See Appleyard, Arthur E., assignor.)						
Mills, Charles, assignor to E. & H. T. Anthony & Company, New York, N. Y. Photographic camera	458,128	Aug. 18	1953	507	56	919
Mills, Charles, assignor to E. & H. T. Anthony & Company, New York, N. Y. Lens-supporter for photographic cameras	464,462	Dec. 1	695	170	57	1267
Mills, Gasper B., Rochester, N. Y., assignor of one-half to G. W. Ireland, Philadelphia, Pa. Elevator	456,048	July 14	1191	313	56	235
Mills, Isaac, Hamilton, Canada. Fire-escape	460,647	Oct. 6	181	46	57	38
Mills, John, Newark, N. J. Mat	463,702	Nov. 24	2378	622	57	1035
Mills, John, and C. W. Zimmerman, Brewton, Ala. Log-turner	448,662	Mar. 24	2280	573	54	1577
Mills, John D., assignor to G. C. McDermott, Cincinnati, Ohio. Pencil-sharpener	448,723	Mar. 24	2385	597	54	1598
Mills, John D., and G. C. McDermott, Cincinnati, Ohio; said Mills assignor to said McDermott. Pencil-sharpener	459,180	Sept. 8	1002	244	56	1266
Mills, John H., Boston, Mass. Sectional boiler	449,379	Mar. 31	3434	864	54	1802
Mills, Joseph S., Union, Ill. Regulator for feed-boxes	453,817	June 9	1001	261	55	1346
Mills, Lloyd M., Grand Rapids, Mich. Check-punch	450,913	Apr. 21	1964	481	55	397
Mills, Lorenzo C., Stony Brook, N. Y. Thill-coupling	444,299	Jan. 6	499	130	54	100
Mills, Mary L., et al. (See Parker, William S., assignor.)						
Mills, Mary L., et al. (See Jackson, Ezra W., assignor.)						
Mills, Mortimer B., Chicago, Ill. Coin-actuated vending apparatus	450,336	Apr. 14	1049	257	55	208
Mills, Mortimer B., assignor to Bogue & Mills Manufacturing Company, Chicago, Ill. Track-pump apparatus	447,576	Mar. 3	501	123	54	1211

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Mills, Mortimer B., assignor to Bogue & Mills Manufacturing Company, Chicago, Ill. Lock for railway-gates	454,983	June 30	2817	717	55	1712
Mills, Stephen G., Wichita, Kans. Pump	459,299	Sept. 8	1178	286	56	1302
Mills, Thomas, Charterstowers, Queensland. Propelling vessels	457,361	Aug. 11	739	189	56	676
Mills, Thomas C. (See Osborn, Luke W., assignor.)						
Mills, William, assignor of one-half to E. M. Cooper, Philadelphia, Pa. Machine for sewing on buttons	463,294	Nov. 17	1705	445	57	898
Milne, Alexander. (See Jeffery and Giering, assignors.)						
Milne, Alexander, assignor to Newark Watch Case Material Company, Newark, N. J. Watch-case spring	453,202	June 2	32	10	55	1155
Milne, James T., assignor to Waterous Engine Works Company, Limited, Brantford, Canada. Band-saw mill	455,635	July 7	545	142	56	105
Milne, John. (See Mitchell and Milne.)						
Milovanovitch-Koka, Kosta R., Vienna, Austria-Hungary. Cartridge-feed case for magazine-guns	447,577	Mar. 3	502	123	54	1211
Milovanovitch-Koka, Kosta R., Vienna, Austria-Hungary. Magazine-gun	453,303	June 2	185	51	55	1182
Miltenberger, Thomas, Bellefontaine, Ohio. Horse hay-rake	457,091	Aug. 4	249	64, 65	56	581
Milton Bradley Company. (See Hill, Thomas, assignor.)						
Milton, Thomas M., assignor of one-half to L. C. Pierce, Brewerton, N. Y. Smoothing-machine	456,366	July 21	1685	444	56	339
Milwaukee Brass and Copper Works. (See Sceets, George N., assignor.)						
Milwaukee Carving Company. (See Smith, Thomas L., assignor.)						
Milwaukee Gas Stove Company. (See Detwiler, Alfred E., assignor.)						
Milwaukee Harvester Company. (See Latimer, John W., assignor.)						
Milwaukee Harvester Company. (See Martincourt, Charles, assignor.)						
Milwaukee Hay Tool Company. (See Gutenkunst, William, assignor.)						
Mimard, Etienne. (See Blachon and Mimard.)						
Mimmack, Bernard P., Washington, D. C. Guard for shutter-fasteners	464,713	Dec. 8	1097	272	57	1353
Minehart, Charles A., California, Pa. Buckle	464,885	Dec. 8	1348	339	57	1402
Miner, Uriah D., Starke, Fla. Watch-maker's punch	450,520	Apr. 14	1326	326	55	261
Miner, William H., Chicago, Ill. Draft-rigging for cars	461,443	Oct. 20	1412	356	57	287
Mineralized Rubber Company. (See Dodge, George P., assignor.)						
Minges, Adam G., St. Louis, Mo. House-door letter-box	453,124	May 26	2719	686	55	1117
Minges, George E., Atlanta, Cal. Chaff-separator for thrashers	448,357	Mar. 17	1792	453	54	1478
Minich, Daniel, assignor of two-thirds to J. Yates and R. McKee, Philadelphia, Pa. Spike	464,980	Dec. 15	1506	378	57	1442
Minisini, Gaspare, Turin, Italy. Automatic pouch for cartridges	457,053	Aug. 4	176	44	56	567
Minix, John H., Eaton, Ohio. Door-check	446,760	Feb. 17	2038	507	54	928
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Machine for spinning circular forms of metal	451,159	Apr. 28	2348	583 584	55	481
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener	454,827	June 23	2516	647	55	1648
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener	456,899	July 28	2572	676	56	513
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener	456,900	July 28	2573	676	56	513
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener	456,901	July 28	2574	676	56	513
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener	456,902	July 28	2575	676	56	513
Mink, Fritz, Philadelphia, Pa., assignor to Keystone Watch Case Company, of Pennsylvania. Watch-bow fastener	460,074	Sept. 22	2409	603	56	1552
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener	460,879	Oct. 6	525	134	57	103
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener	461,798	Oct. 20	2048	505	57	405
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Apparatus for forming hinge-flats upon watch-cases	462,803	Nov. 10	923	240 241	57	739
Mink, Fritz, assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-bow fastener	466,278	Dec. 29	3641	931	57	1869
Minneapolis Harvester Works. (See Courtney, John J., assignor.)						
Minneapolis Improved Typewriter Company. (See Lowe, Austin, assignor.)						
Minnemeyer, Edward G., Peoria, Ill. Washing-machine	456,222	July 21	1447	383	56	294
Minnesota Patent Sewer Pipe Company. (See Hargrave, Thomas C., assignor.)						
Minnich, Mary C. (See Minnich, Simon B., assignor.)						
Minnich, Simon B., assignor to M. C. Minnich, Landisville, Pa. Compensating bit-holder	460,922	Oct. 6	600	152	57	117
Minnick, Albert, Colton, assignor to himself, and M. Blanchard, San Bernardino, Cal. Ventilating device for railway-cars	461,361	Oct. 13	1272	323	57	254
Minnick, Edward, Spring Hills, Ohio. Fence-post	444,781	Jan. 13	1256	325	54	253
Minns, William C., Great Yarmouth, England. Machine for cutting glazier's window-lead	446,878	Feb. 24	2237	556	54	977
Minor, Alfred A., Egg Harbor, Wis. Vehicle-wheel hub	461,033	Oct. 13	760	195	57	154
Minor, Peter W., Springville, N. Y. Belt guide and tightener	463,686	Nov. 24	2349	615 616	57	1030
Minor, William S., Northville, N. Y. Excelsior-machine	463,530	Nov. 17	2072	545	57	969
Minton, A. G. (See Abbott, Levi, assignor.)						
Minturn, Joseph A. (See Allen and Minturn.)						
Mirfield, Samuel, Toronto, Canada. Bread-cutting machine	452,610	May 19	1885	474	55	946
Mirkil, Thomas H., Jr., assignor to Southwark Foundry and Machine Company, Philadelphia, Pa. Stuffing-box for steam-hammers	447,340	Mar. 3	97	26	54	1136
Misener, William D., Watertown, Canada. Horseshoe-nail clincher	462,268	Nov. 3	76	18	57	566
Mishawaka Woolen Manufacturing Company. (See Beiger and Eberhart, assignors.)						
Misic, Michael, and E. Schweizer, Brooklyn, N. Y. Valve-gear for pumping-engines	461,640	Oct. 20	1873	440	57	356
Missel, Elias, Stuttgart, and L. Meyer, Feuerbach, Germany. Packing	463,531	Nov. 17	2073	545	57	969
Missimer, Jacob G., assignor to J. W. Queen & Co., Philadelphia, Pa. Rimless spectacles or eyeglasses	450,177	Apr. 14	778	197	55	158
Missouri Iron Roofing and Corrugating Company. (See Couch, Rue L., assignor.)						
Mistelski, Theodor, Allegheny, Pa. Sand-molding machine	450,521	Apr. 14	1327	326	55	261
Mitchell, Albion L. F., Lynn, Mass. Heel-burnishing machine	452,033	May 12	922	236	55	760
Mitchell, Albion L. F., assignor of two-thirds to W. Shute, T. D. Nutting, J. R. and W. J. Mitchell, Lynn, Mass. Heel-burnisher	452,032	May 12	919	234 235	55	759
Mitchell, Alexander L., Great Barrington, Mass. Cloth-measuring machine	451,697	May 5	388	95	55	653
Mitchell, Andrew W., Boston, Mass. Guard for electric-railway trolleys	449,226	Mar. 31	3153	795	54	1753
Mitchell, Andrew W., Boston, Mass. Guard for electric-railway trolleys	449,490	Mar. 31	3622	911	54	1839
Mitchell, Aroline C., Ennis, Mont. Mixer or beater	466,178	Dec. 29	3490	891	57	1840

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Mitchell, Augustus P., St. Paul, Minn., assignor of one-half to J. E. McElroy and R. L. Crescy, Chicago, Ill. Car-axle lubricator	461,151	Oct. 13	921	238	57	184
Mitchell, Charles, Poughkeepsie, N. Y. Water-heater	456,582	July 28	2039	539	56	414
Mitchell, Clifford, assignor of two-thirds to P. S. Rountree and S. R. Jewett, Chicago, Ill. Producing press copies from ink impressions	444,180	Jan. 6	332	.....	54	67
Mitchell, Edward W., Spokane Falls, Wash., assignor of one-fourth to R. Parker, J. H. Stearns, and B. F. Sutton, Brooklyn, N. Y. Conductor for electric railways	452,611	May 19	1888	475	55	947
Mitchell, Elma M. (See Mitchell, John E. and E. M.)						
Mitchell, Frederic M., Peru, Ohio. Thill-coupling	460,830	Oct. 6	458	116	57	91
Mitchell, George P., assignor of two-thirds to C. H. Perkins and E. W. Smith, Newark, N. Y. Dinner-pail	445,961	Feb. 3	727	177	54	655
Mitchell, J. W., <i>et al.</i> (See Metz, Julius, assignor.)						
Mitchell, James C., Lancaster, assignor of two-thirds to W. C. Smith, Berlin Falls, N. H., and F. B. Bridges, Bethel, Me. Railway-car seat	444,132	Jan. 6	255	61	54	52
Mitchell, James H., Philadelphia, Pa. Treating cakes, &c.	447,966	Mar. 10	1144	289	54	1341
Mitchell, James M., Lawrenceville, assignor of one-half to W. A. Camp, Green Way, Ga. Wind apparatus for generating electricity and charging secondary batteries	452,546	May 19	1789	450	55	927
Mitchell, James M., Lawrenceville, assignor of one-half to W. A. Camp, Green Way, Ga. Wind apparatus for generating electricity and charging secondary batteries	457,657	Aug. 11	1188	{ 304 } { 305 }	{ 56 }	763
Mitchell, James R., <i>et al.</i> (See Mitchell, Albion L. F., assignor.)						
Mitchell, James T., Monticello, N. Y. Rocking chair	465,719	Dec. 22	2730	696	57	1683
Mitchell, James V., Martinsville, Ind. Toe-weight	463,638	Nov. 24	2271	598	57	1016
Mitchell, John, assignor to Clark's Coking and Smokeless Furnace Company, Rochester, N. Y. Furnace	461,444	Oct. 20	1414	357	57	288
Mitchell, John E. and E. M., Salem, Iowa. Plow	448,740	Mar. 24	2414	603	54	1603
Mitchell, Kerr M., St. Joseph, Mo. Combined chute and hopper for charging retorts	444,249	Jan. 6	432	109	54	85
Mitchell, Kerr M., St. Joseph, Mo. Retort-charging device	444,268	Jan. 6	458	{ 116 } { 117 }	{ 54 }	91
Mitchell, Kerr M., St. Joseph, assignor of one-half to R. P. Greer, St. Louis, Mo. Dehydrater. Mitchell, Leander C. (See Peet, John, assignor.)	453,125	May 26	2722	686	55	1117
Mitchell, Martin V., Columbus, Ohio. Bag-lock	454,058	June 16	1318	344	55	1415
Mitchell, Nathan J., assignor of one-half to N. M. Leathers, Philadelphia, Pa. Paint	444,842	Jan. 20	1358	.....	54	282
Mitchell, Nathaniel C., Philadelphia, Pa., assignor of one-half to R. A. Loewenthal, New York, N. Y. Production of waste rubber goods	454,442	June 16	1898	.....	55	1536
Mitchell, Oliver F., assignor of three-fourths to W. A. Scott, P. B. Champagne, and J. N. Cotter, Merrell, Wis. Door-plate and letter-slip	445,068	Jan. 20	1756	453	54	359
Mitchell, Richard V., J. W. Peck, and W. H. Mitchell, Rome, Ga. Car-coupling	458,812	Sept. 1	394	95	56	1141
Mitchell, Robert, and C. Lawson, Montreal, Canada. Gas-meter	447,693	Mar. 3	609	167	54	1245
Mitchell, Sophia H., West Troy, N. Y. Cooking-vessel	457,208	Aug. 4	435	114	56	614
Mitchell, Thomas, Brooklyn, and J. Milne, Long Island City, N. Y. Type-mold	450,083	Apr. 7	641	162	55	126
Mitchell, Thomas A. (See Edwards, Edward R., assignor.)						
Mitchell, Walter H. (See Mitchell, Peck, and Mitchell.)						
Mitchell, William H., Smith's Cross Roads, Ky. Saw-mill dog	458,912	Sept. 1	569	138	56	1174
Mitchell, Willis, Malden, Mass. Electrically-heated oven	457,745	Aug. 11	1341	347	56	796
Mitchell, Willis, Malden, assignor of three-fourths to E. Jewell, Boston, L. L. Parsons and A. B. Smith, Saugus, Mass. Electric switch	453,888	June 9	1087	284	55	1362
Mitchell, Willis, Malden, Mass., assignor to Butterfield-Mitchell Electric Heating Company. Electric smoothing-iron	457,164	Aug. 4	353	90	56	600
Mitchell, Willis, Malden, Mass., assignor to Butterfield-Mitchell Electric Heating Company. Electric steam generator and heater	457,362	Aug. 11	739	189	56	677
Mitchell, Willis, Malden, Mass., assignor to Butterfield-Mitchell Electric Heating Company. Electrically-heated writhand-ironer	459,070	Sept. 8	821	199	56	1232
Mitchell, Willis, Malden, assignor to Butterfield-Mitchell Electric Heating Company, Boston, Mass. Electric soldering-iron	460,978	Oct. 13	683	177	57	140
Mitchell, Willis, Malden, assignor to Butterfield-Mitchell Electric Heating Company, Boston, Mass. Electric soda-fountain	460,979	Oct. 13	684	177	57	140
Mitchell, Willis, Malden, assignor to Butterfield-Mitchell Electric Heating Company, Boston, Mass. Electric heating-core for smoothing-irons	460,980	Oct. 13	686	{ 177 } { 178 }	{ 57 }	141
Mitchell, Winfield J., <i>et al.</i> (See Mitchell, Albion L. F., assignor.)						
Mitscherlich, Alexander, Freiburg, Germany. Pulverizing wood	459,589	Sept. 15	1654	.....	56	1402
Mitting, Ebenezer K. (See Hagemann and Mitting.)						
Mitting, Ebenezer K., Chicago, Ill. Making nitro-glycerine	457,002	Aug. 4	111	.....	56	555
Mix, Frank W., New Britain, Conn. Padlock	445,121	Jan. 20	1334	475	54	373
Mix, Frank W., New Britain, Conn. Key-guide for locks	448,981	Mar. 24	2769	700	54	1671
Mix & Genest. (See Miller, August C. F., assignor.)						
Mixer, William D. (See Murphy and Mixer.)						
Moats, George N., and C. R. Crawshaw, Ironton, Ohio. Railway-frog	445,839	Feb. 3	542	132	54	617
Moats, Ortus E., assignor to F. C. Austin, Chicago, Ill. Road-scraper	460,511	Sept. 29	3092	773	56	1690
Mock, Samuel T., Milwaukee, Wis. Switch	457,839	Aug. 18	1489	388	56	831
Modern Tobacco Barn Company. (See Snow, William H., assignor.)						
Moe, Theodore M. (See Brown, Fred. H., assignor.)						
Moeckel, Ernst. (See Moser and Moeckel.)						
Moeckel, Ernst, <i>et al.</i> (See Doenitz, August, assignor.)						
Moeble, Gustav K., Arrow Rock, Mo. Reversible friction-gear	463,532	Nov. 17	2074	545	57	969
Moening, Emil F., and K. A. W. Haessler, San Francisco, Cal. Safety device for elevators	458,765	Sept. 1	324	79	56	1127
Moeschler, Sosthenes, Riceville, Va. Adjustable singletree	460,443	Sept. 29	2968	742	56	1666
Moeser, Albert H. (See Moeser and Moeckel.)						
Moeser, Henry, assignor of one-third to A. H. Moeser, Allegheny, Pa. Tunnel	447,735	Mar. 3	733	{ 183 } { 184 }	{ 54 }	1256
Moffat, Charles S. B. (See Messina and Moffat.)						
Moffatt, Ansel, Indianapolis, Ind. Composition of matter	445,815	Feb. 3	509	.....	54	611
Moffatt, George, and S. Stuttaford, assignors to Vulcan Patent Smoke Consumer and Fuel Economizer Corporation, Limited, London, England. Apparatus for consuming smoke and saving fuel in furnaces	448,156	Mar. 10	1427	364	54	1399
Moffatt, Richard R., New York, assignor to himself, and S. Chichester, Brooklyn, N. Y. Magnetic separator	449,610	Mar. 31	3798	953	54	1872
Moffatt, Richard R., New York, and S. Chichester, Brooklyn, N. Y. Electro-magnetic separator	462,321	Nov. 3	163	42	57	582
Moffatt, Richard R., New York, and S. Chichester, Brooklyn, N. Y. Electro-magnetic separator	462,322	Nov. 3	166	42	57	582
Moffett, Charles J. (See Davis, John T., assignor.)						
Moffitt, Arthur A., McComb, Ohio. Book or music holder	464,512	Dec. 8	782	192	57	1294
Moh, Oswald, G6rlitz, Germany. Preparing photograph-plates	457,817	Aug. 18	1454	56	823

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Mohawk and Hudson Manufacturing Company. (See Waldron, Asa T., assignor.)						
Mohland, Charles H., and L. Kerber, Sigourney, Iowa. Grubbing-machine.	444,843	Jan. 20	1358	352	54	282
Mohler, Johannes, and C. A. Mayer, assignors to L. Durand, Huguenin & Co., Basle, Switzerland. Blue dye.	444,538	Jan. 13	878	.....	54	183
Mohler, Johannes, and C. A. Mayer, assignors to L. Durand Huguenin & Co., Basle, Switzerland. Blue dye.	451,502	May 5	92	.....	55	597
Mohme, Henry J., Sigourney, Iowa. Stump-puller.	457,054	Aug. 4	180	45	56	568
Mohn, Christian B., Christiania, Norway. Shaft-governor for steam-engines.	450,249	Apr. 14	912	226	55	181
Mohn, George F., Los Angeles, Cal. Electric uthertine supporter.	458,536	Aug. 25	2627	639	56	1053
Moir, Henry C., Sydney, New South Wales. Fire-escape.	444,670	Jan. 13	1080	280	54	221
Moise, Leonard C., Houma, La. Turn-table.	455,346	July 7	70	19	56	18
Molander, Swan B. (See Sundeen, Molander, Anderson, and Carlsen.)						
Mole, James R., Janesville, Wis. Transplanting-machine.	461,920	Oct. 27	2253	557	57	454
Moler, William C., Claggett's Station, Md. Thill-coupling.	450,418	Apr. 14	1182	258	55	232
Molesworth, Francis H., assignor to G. S. Wright, C. Ballard, and G. Marshall, Adelaide, South Australia. Treating metalliferous ores.	465,872	Dec. 29	2973	759	57	1740
Molin, Charles G., Brooklyn, N. Y. Message-tablet.	433,711	June 9	846	219	55	1315
Molinari, Anton, Woodbridge, N. J. Piston for syringes.	449,883	Apr. 7	357	90	55	71
Moline Plow Company. (See Lingren, August, assignor.)						
Moline Plow Company. (See Lindgren and Luitwieler, assignors.)						
Moll, Gustav H., St. Louis, Mo. Operating-bar for window-slats.	457,427	Aug. 11	834	216	56	696
Mollencoff, Christopher, Malta, Ill. Horse-collar.	445,069	Jan. 20	1757	453	54	359
Möller, Oscar, Hamburg, Germany. Holosteric barometer.	459,977	Sept. 22	2263	568	56	1524
Möller, Peter. (See Heyerdahl, Peter M., assignor.)						
Molloy, Edmund, et al. (See Weeden, Charles L., assignor.)						
Molloy, Edmund, Philadelphia, Pa. Timber-roof structure.	460,981	Oct. 13	687	178	57	141
Molloy, James F., New Haven, Conn. Buckle.	459,206	Sept. 8	1037	253	56	1273
Molsead, James A., and J. Finch, Vail, Iowa. Car-coupling.	460,792	Oct. 6	409	99	57	81
Molyneux, Barton S., Minneapolis, Minn. Electric fare-recording system.	464,513	Dec. 8	783	192	57	1294
Monahan, William H. (See Hilton and Monahan.)						
Monce, Samuel G., Bristol, Conn. Apparatus for cutting glass.	453,867	June 9	1058	277	55	1357
Moncrief, James A., Pawtucket, R. I. Friction-clutch.	447,967	Mar. 10	1144	290	54	1341
Moncrieff, John M. (See Moncrieff, Robert P. and J. M.)						
Moncrieff, Robert P. and J. M., South Shields, England. Tea-pot, coffee-pot, &c.	451,862	May 5	629	156	55	698
Mond, Ludwig, London, England. Making compounds of nickel and carbon monoxide.	455,227	June 30	3240	.....	55	1795
Mond, Ludwig, London, England. Obtaining metallic nickel.	455,228	June 30	3241	.....	55	1795
Mond, Ludwig, London, England. Compound of nickel and carbon monoxide.	455,229	June 30	3242	.....	55	1795
Mond, Ludwig, London, England. Depositing nickel.	455,230	June 30	3243	.....	55	1795
Monday, Robert, assignor to W. L. Abbott, Lampasas, Tex. Windmill.	454,372	June 16	1788	466	55	1504
Monds, James, et al. (See Woncher, Martin V., assignor.)						
Monette, Victor C., Paris, France. Stopper and liquid-dropper for bottles.	449,291	Mar. 31	3263	827	54	1773
Monjeau, Cleophas, Middletown, Ohio. Apparatus for water-supply.	444,007	Jan. 6	38	11	54	11
Monjeau, Cleophas, Middletown, Ohio. Forming subterranean filtering-galleries.	461,445	Oct. 20	1416	357	57	288
Monjeau, Cleophas, Middletown, Ohio. Sand screen or filter.	463,759	Nov. 24	2460	643	57	1050
Monjo, Domingo M., trustee. (See Sunderland, John P., assignor.)						
Monk, Thomas J., Gibsland, La. Brick-yard plant.	445,939	Feb. 3	692	{ 168 169 }	54	648
Monks, William J., Fall River, Mass. Shutter-fastener.	447,543	Mar. 3	455	112	54	1203
Monnett, John P., Bucyrus, Ohio. Feeding device for thrashing-machines.	450,084	Apr. 7	643	162	55	126
Monnett, John P., Bucyrus, Ohio. Band-cutter.	452,277	May 12	1339	334	55	835
Monnette, Memin J. (See Hawk, Hale E., assignor.)						
Monnier, Jean A. L., Rosières, Switzerland. Stem-winding watch.	464,131	Dec. 1	181	45	57	1171
Monnier, Victor, Grafton, N. D. Flour-bolting apparatus.	448,538	Mar. 17	2063	517	54	1529
Monroe, Adelbert E., Barry, Mich. Hook.	462,721	Nov. 10	792	207	57	712
Monroe, Charles F., Meriden, Conn. Lamp-shade.	450,729	Apr. 21	1674	404	55	342
Monroe, Charles W., assignor to W. R. Monroe, Cleveland, Ohio. Latch.	466,008	Dec. 29	3226	822	57	1787
Monroe, Edwin P., Philadelphia, Pa. Metallic rod-packing.	444,195	Jan. 6	354	87, 88	54	71
Monroe, Edwin P., Philadelphia, Pa. Metallic rod-packing.	444,386	Jan. 6	629	163	54	124
Monroe, Edwin P., Philadelphia, Pa. Metallic packing.	464,330	Dec. 1	514	{ 123 124 }	57	1231
Monroe, Edwin P., Philadelphia, Pa. Metallic packing.	464,331	Dec. 1	515	124	57	1232
Monroe, Edwin P., Philadelphia, Pa. Metallic packing.	464,332	Dec. 1	516	{ 124 125 }	57	1232
Monroe, John E., Worcester, Mass. Nursing-bottle.	446,116	Feb. 10	986	243	54	711
Monroe, William R. (See Monroe, Charles W., assignor.)						
Monroe, William R., Cleveland, Ohio. Fire-curtain.	445,337	Jan. 27	2171	562	54	449
Monsanto, Mauricio M., New York, N. Y., assignor to National Salt and Chemical Company. Salt-grainer.	455,572	July 7	442	17	56	85
Montague, Alford L., and H. S. Bailey, Canandaigua, N. Y. Feed-cooking stove.	446,879	Feb. 24	2238	557	54	977
Montague, Frank L., New York, N. Y. Sewing-machine needle.	460,148	Sept. 29	2530	630	56	1582
Montague, Gilbert. (See Haskins, Charles A., assignor.)						
Montague, John R., assignor to Montague Roller Cotton Gin Company, Syracuse, N. Y. Roller cotton-gin.	462,722	Nov. 10	793	{ 207 208 }	57	712
Montague Roller Cotton Gin Company. (See Montague, John R., assignor.)						
Montague, William L., Jr., and E. S. Lea, Baltimore, Md. Shaft-coupling.	457,209	Aug. 4	436	114	56	614
Monteague, Louis F., et al. (See Ludwig, John C., assignor.)						
Montecino, Paul, Napoleonville, La. Combined planter and fertilizer-distributor.	460,880	Oct. 6	527	134	57	104
Monteith, Walter J., Albany, Oreg. Pliers.	456,049	July 14	1193	313	56	235
Montfort, Israel C., Louisville, Ky. Washing-machine.	450,675	Apr. 21	1603	385	55	329
Montgomerie, James C., Bitterne, near Southampton, England. Apparatus for securing together scaffold-poles.	447,838	Mar. 10	932	233	54	1301
Montgomery, James P., South Pueblo, assignors of seven-eighths to L. L. Marble, W. C. Marymee, and J. C. Settle, Pueblo, Colo. Pump.	445,962	Feb. 3	728	178	54	655
Montgomery, James W., Thomasville, Ga. Plow.	459,410	Sept. 15	1371	343	56	1349
Montgomery, John A., Washington, D. C. Sash-fastener.	464,265	Dec. 1	419	99	57	1214
Montgomery, John M. (See Benson, Samuel, assignor.)						
Montgomery, Joseph N., assignor of one-half to A. Hacker, Lacon, Ill. Animal-yoke.	450,758	Apr. 21	1714	414	55	350
Montgomery, Marcus W., assignors to P. G. Montgomery, Minneapolis, Minn. Farm-wagon.	451,897	May 5	679	172	55	708
Montgomery, Plymouth G. (See Montgomery, Marcus W., assignor.)						
Montgomery, William, assignor of one-half to A. Krieg, Roseville, Ill. Hammer.	459,643	Sept. 15	1755	441	56	1420
Montgomery, William H. (See Dunn and Montgomery.)						
Montreuil, Frank H., Detroit, Mich. Water-level indicator.	451,699	May 5	390	95	55	653
Montross, Benjamin, Millersburg, Iowa. Stump-extractor.	446,224	Feb. 10	1177	288	54	745
Montz, Joseph A., Wilkes-Barre, Pa. Picture-frame fastener.	459,513	Sept. 15	1528	382	56	1378

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Moodie, Fleming R., and V. Martin, Hopkinsville, Ky. Saw-mill dog	457,971	Aug. 18	1725	452	56	874
Moody, Charles D., Webster Groves, Mo. Tank-valve	455,257	June 30	3282	832	55	1802
Moody, Grant E., Kendallville, Ind. Blow-lamp	454,139	June 16	1437	376	55	1438
Moomaw, Henry E., assignor of one-half to E. T. Hinote, Caryville, Fla. Car-coupling	450,085	Apr. 7	644	163	55	126
Moomaw, Joseph B. (See Gates, Ethan A., assignor.)						
Moon, Frank D., New Britain, Conn. Standing gutter for roofs	462,847	Nov. 10	1000	258	57	753
Moon, Herman, Grove City, Pa. Balanced slide-valve	450,470	Apr. 14	1251	306	55	245
Moon, John C. (See Moon, Joseph W. and J. C.)						
Moon, Joseph W. and J. C., St. Louis, Mo. Two-wheeled vehicle	457,287	Aug. 4	568	151	56	639
Moonesis, Adolph, assignor of one-half to B. Lichtenstein, New York, N. Y. Cigars	456,312	July 21	1597	422	56	322
Mooney, Benjamin F., Olean, N. Y. Clapboard-holder	445,681	Feb. 3	279	74	54	567
Mooney, Thomas. (See Schlee, Bach, and Mooney.)						
Mooney, William, North Plainfield, N. J., assignor of one-half to J. R. Floyd & Sons, New York, N. Y. Rotary gas-scrubber	444,300	Jan. 6	501	{ 130 131 }	{ 54 54 }	{ 100 100 }
Moore, Agnew, Missoula, Mont. Pier-protector	446,586	Feb. 17	1769	436	54	876
Moore, Arthur, Toronto, Canada. Roller-mill	466,251	Dec. 29	3600	{ 921 922 }	{ 57 57 }	{ 1861 1861 }
Moore, Anstin D., and A. K. Grim, San Francisco, Cal. Fancet	452,526	May 19	1761	{ 442 443 }	{ 55 55 }	{ 922 922 }
Moore, Carlisle F., Du Bois, Nebr. Clothes-line	457,617	Aug. 11	1136	290	56	753
Moore, Charles, Visalia, Cal. Mop	465,188	Dec. 15	1882	477	57	1511
Moore, Charles B., et al. (See Orr, William, Sr., assignor.)						
Moore, Charles C., Lancaster, Ohio. Eaves-trough	460,982	Oct. 13	689	178	57	141
Moore, Charles F. (See Schreckengost, Samuel, assignor.)						
Moore, Charles J. (See Yost and Moore.)						
Moore, Charles P., and F. M. Wolf, Ravenswood, W. Va.; said Wolf assignor to said Moore. Shipping and storage box	452,232	May 12	1271	320	55	823
Moore, Clarence A., Chicago, Ill. Padlock	459,499	Sept. 15	1502	376	56	1373
Moore, Clarence W., Peabody, Mass. Barrel-closure	463,252	Nov. 17	1644	428	57	887
Moore, Clarence W., Peabody, Mass. Barrel-closure	463,253	Nov. 17	1645	428	57	887
Moore, Edward A. (See Moore, George R., assignor.)						
Moore, Edward J., Philadelphia, Pa. Steam-boiler	451,734	May 5	443	{ 107 108 }	{ 55 55 }	{ 663 663 }
Moore, Edward Y., Milwaukee, Wis. Door-hanger	445,354	Jan. 27	2197	570	54	455
Moore, Edward Y., Milwaukee, Wis. Door-hanger	452,979	May 26	2484	628	55	1071
Moore, Ellis E., Syracuse, N. Y. Automatic registering photographic apparatus	459,411	Sept. 15	1372	344	56	1349
Moore, Everett D., assignor to American Oil Projectile Company, Baltimore, Md. Oil projectile and distributor	457,553	Aug. 11	1033	266	56	734
Moore, Everett D., assignor to American Oil Projectile Company, Baltimore, Md. Oil projectile and distributor	457,554	Aug. 11	1036	266	56	735
Moore, F. L., et al. (See Ritter, Andrew J., assignor.)						
Moore, Francis A., Tyler, Tex. Car-door	464,624	Dec. 8	945	233	57	1325
Moore, Francis M., Brooklyn, N. Y. Center-board for vessels	444,501	Jan. 13	824	215	54	172
Moore, Frank, Pittsburg, Pa. Station-indicator	448,982	Mar. 24	2770	{ 700 701 }	{ 54 54 }	{ 1671 1671 }
Moore, Frank, Pittsburg, Pa. Automatic brake-regulator	455,902	July 14	973	254	56	195
Moore, Frank, assignor to Westinghouse Air Brake Company, Pittsburg, Pa. Triple valve for automatic brake mechanisms	445,963	Feb. 3	729	178	54	655
Moore, Frank, assignor to Westinghouse Air Brake Company, Pittsburg, Pa. Triple valve for automatic brake mechanism	453,154	May 26	2769	697	55	1126
Moore, Frank, assignor to Westinghouse Air Brake Company, Pittsburg, Pa. Valve for fluid-pressure signaling apparatus	453,604	June 2	663	171	55	1273
Moore, Frank, Pittsburg, and F. L. Clark, Swissvale, Pa. Molding-machine	463,160	Nov. 17	1496	388	57	858
Moore, Franklin C., Monticello, Ind. Motor	458,776	Sept. 1	343	{ 83 84 }	{ 56 56 }	{ 1131 1131 }
Moore, Frederic H., Boston, Mass. Bridging for flooring-joists	459,900	Sept. 22	2163	544	56	1505
Moore, George, Boston, and J. E. Perfler, Everett, Mass. Street-car	445,661	Feb. 3	233	63	54	557
Moore, George B., assignor of two-fifths to J. V. Glover, Springfield, Mass. Valve	459,044	Sept. 8	783	190	56	1225
Moore, George C., assignor to J. W. Green, Jr., Easthampton, Mass. Mechanical movement	454,539	June 23	2051	530	55	1563
Moore, George C., assignor of one-half to J. W. Green, Jr., Easthampton, Mass. Elastic woven fabric	456,154	July 21	1344	357	56	275
Moore, George C., assignor of one-half to J. W. Green, Jr., Easthampton, Mass. Loom-shuttle raceway	456,675	July 28	2199	583	56	445
Moore, George R., Philadelphia, Pa. Oil-burner	462,770	Nov. 10	868	228	57	727
Moore, George R., assignor of one-half to E. A. Moore, Westford, Mass. Tellurian	452,413	May 19	1574	390	55	889
Moore, George R., assignor of one-half to E. A. Moore, Westford, Mass. Walking automaton	454,570	June 23	2093	{ 539 540 }	{ 55 55 }	{ 1570 1570 }
Moore, George R., assignor of one-half to E. A. Moore, Westford, Mass. Tellurian	465,824	Dec. 22	2889	739	57	1716
Moore, George W., et al. (See Shapel, Hooker, assignor.)						
Moore, Gilpin, assignor to Deere & Company, Moline, Ill. Vineyard-plow	454,828	June 23	2517	648	55	1648
Moore, Gilpin, assignor to Deere & Company, Moline, Ill. Harrow	460,149	Sept. 29	2531	630	56	1582
Moore, Gilpin, and C. H. Pope, assignors to Deere & Company, Moline, Ill. Cultivator	461,503	Oct. 20	1565	384	57	315
Moore, Harrison S., Du Bois, Nebr. Cultivator	456,050	July 14	1193	314	56	235
Moore, Harwell P., Bossier Parish, La. Combined cultivator and plow	460,983	Oct. 13	691	179	57	142
Moore, Horatio N. (See Brackett and Moore.)						
Moore, Ila N., Battle Creek, Mich. Steam-actuated valve	454,753	June 23	2389	613	55	1626
Moore, James J., Merryville, La. Explosive projectile for ordnance	446,975	Feb. 24	2400	597	54	1006
Moore, Jno. S., et al. (See Reed, Franklin M., assignor.)						
Moore, John, East New Durham, N. J. Mold for cement wash-tubs	449,884	Apr. 7	357	91	55	71
Moore, John, and J. Campbell, Delano, Pa. Brake-beam	465,942	Dec. 29	3092	792	57	1763
Moore, John J. (See Foster, Horatio A., assignor.)						
Moore, John W., Lansingburg, assignor of one-half to Z. F. Magill, Troy, N. Y. Pipe-coupling	451,565	May 5	181	44	55	614
Moore, Joseph and R. H., San Francisco, Cal.; said Joseph Moore assignor to said R. H. Moore. Hose-holder	463,068	Nov. 10	1345	348	57	821
Moore, Josiah H., assignor to himself and Walton Plow Company, Bloomington, Ill. Harrow	447,472	Mar. 3	348	86	54	1183
Moore, Marion, assignor of one-half to S. Mettler, W. H. Moore, and J. C. Barr, Amanda, Ohio. Corn-harvester	466,018	Dec. 29	3240	826	57	1791
Moore, Morris W., Springfield, assignor, by mesne assignments, to J. E. Chase, Holyoke, Mass. Fountain-pen	448,885	Mar. 24	2633	661	54	1644
Moore, Myron E. (See Johnson and Moore.)						
Moore, Nicholas, assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-case	455,231	June 30	3244	823	55	1795

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Moore, Ralph H. (See Moore, Joseph and R. H.)						
Moore, Robert S., Bradshaw, Nebr. Lawn-sprinkler	463,637	Dec. 8	964	{ 238 239 }	57	1329
Moore, Sam, <i>et al.</i> (See Norwood, Richard W., assignor.)						
Moore, Samuel G. (See Hooper and Moore.)						
Moore, Samuel J. (See Hutchinson, Henry, assignor.)						
Moore, Samuel J., <i>et al.</i> (See Rodwell, George J. B., assignor.)						
Moore, Stephen F., Milwaukee, Wis. Carving-machine	452,144	May 12	1132	287	55	794
Moore, Stephen F., Milwaukee, Wis. Carving-machine	457,165	Aug. 4	354	91	56	601
Moore, Sylvester, Audubon, Iowa. Fence-wire reel	466,179	Dec. 29	3491	891	57	1840
Moore, Thomas B., Rochester, N. Y. Furnace	451,185	Apr. 28	2405	594	55	490
Moore, Thomas H. (See Davis, George W., assignor.)						
Moore, Thomas L., Hamersville, Ohio. Tandem bicycle	448,358	Mar. 17	1794	453	54	1478
Moore, Thomas W., Plainfield, N. J., assignor to T. W. Moore, Jr., Fair Haven, Wash. Har- ness	457,891	Aug. 18	1586	413	56	847
Moore, Van Zandt M., Milwaukee, Wis. Bicycle	447,341	Mar. 3	98	27	54	1137
Moore, William A., <i>et al.</i> (See Burks, Walter, assignor.)						
Moore, William B. (See Wright, Judson E., assignor.)						
Moore, William C. (See Foote and Moore.)						
Moore, William C., and W. E. Garrard, Kansas City, Mo. Toilet-case	448,663	Mar. 24	2282	572	54	1578
Moore, William H., <i>et al.</i> (See Moore, Marion, assignor.)						
Moore, William W., Philadelphia, Pa. Faucet, stop, or valve	452,188	May 12	1207	305	55	809
Moore, William W., Philadelphia, Pa. Plug for faucets	452,189	May 12	1208	306	55	810
Moore, Jonathan, Denton, near Manchester, England. Apparatus for heating hat-brims	450,889	Apr. 21	1933	474	55	390
Moorhouse, Joseph, and J. Ashton, Shaw, near Oldham, England. Driving-gear for spin- ning-mules, &c	452,848	May 26	2263	568	55	1028
Moran Flexible Steam Joint Company. (See Moran, Thomas W., assignor.)						
Moran, James. (See Johnson and Moran.)						
Moran, Robert P., Glasgow, Ky. Horse-detacher	445,025	Jan. 20	1683	433	54	345
Moran, Thomas M., <i>et al.</i> (See Harpold, Adam, assignor.)						
Moran, Thomas W., Louisville, Ky. Steam-coupling for steam-heating railway-cars	465,873	Dec. 29	2974	760	57	1740
Moran, Thomas W., assignor to Moran Flexible Steam Joint Company, Louisville, Ky. Relief-valve	444,782	Jan. 13	1257	326	54	253
Moran, Thomas W., assignor to Moran Flexible Steam Joint Company, Louisville, Ky. Universal joint for steam-couplings	459,565	Sept. 15	1612	404	56	1394
Morand, Henri. (See Herry, Alphonse M. P., assignor.)						
Morava, Wensel, Chicago, Ill. Center-seal and by-pass valve for gas-purifiers	464,714	Dec. 8	1098	{ 272 273 }	57	1354
Morck, August C., Jr., <i>et al.</i> (See Cobham, Frederick P., assignor.)						
Morck, Fred., <i>et al.</i> (See Cobham, Frederick P., assignor.)						
Morcom, John H. (See Nesmith and Morcom.)						
Morden, William S., assignor of two-thirds to R. Hoffman and G. E. Gardiner, Montague, Mich. Axle-box	450,716	Apr. 21	1659	400	55	339
Morehead, John, Detroit, Mich. Beer-pump	451,130	Apr. 28	2302	570	55	471
Morehead, John, Detroit, Mich. Beer-pump	465,943	Dec. 29	3093	792	57	1764
Morehouse, Cyrus E., Milwaukee, Wis. Temporary binder	464,731	Dec. 8	1126	279	57	1358
Moreland, Roswell E., Trenton, N. J. Watch-winding mechanism	451,566	May 5	182	44	55	614
Moreland, Roswell E., Trenton, N. J. Stem winding and setting watch	451,600	May 5	233	56	55	624
Morell, James F., Camden, N. J. Anti-friction bearing for vehicle-wheels	445,377	Jan. 27	2221	576	54	1460
Morford, Thomas E., Minneapolis, Minn. Insulating electric conductors	457,828	Aug. 18	1469	383	56	826
Morgan, Amos W., Buffalo, N. Y. Stop-cock box for water and gas pipes	447,078	Feb. 24	2576	639	54	1038
Morgan, Charles. (See Morgan, Edgar H. and C.)						
Morgan, Charles, <i>et al.</i> (See Redlinger, Michael, assignor.)						
Morgan, Charles, Freeport, assignor to Arcade Manufacturing Company, Madison, Ill. Coffee-mill	461,784	Oct. 20	2022	499	57	400
Morgan, Charles H., assignor to W. Baynes, Buffalo, N. Y. Street-sweeping machine	452,382	May 19	1520	377	55	879
Morgan, David J., Cardiff, England. Locking fire-bar	451,652	May 5	319	77	55	639
Morgan, Edgar H., <i>et al.</i> (See Redlinger, Michael, assignor.)						
Morgan, Edgar H. and C., assignors of one-third to A. Baumgarten, Freeport, Ill. Coffee- mill	444,798	Jan. 13	1276	330	54	257
Morgan, Edith F. (See Morgan, John B., assignor.)						
Morgan, Edmund C., Chicago, Ill. Electric coal-mining machine	458,184	Aug. 25	2040	529	56	942
Morgan, Elisha, Springfield, Mass. Envelope	460,397	Sept. 29	2910	727	56	1655
Morgan, Elisha, Springfield, Mass. Toilet-paper holder	464,377	Dec. 1	578	142	57	1244
Morgan, Elisha, Springfield, Mass. Toilet-paper holder	464,378	Dec. 1	579	142	57	1244
Morgan Envelope Company. (See Hicks, Oliver H., assignor.)						
Morgan Envelope Company. (See Slater, William D., assignor.)						
Morgan, Everard H., Dover, England. Electrically-driven locomotive	466,180	Dec. 29	3493	891	57	1840
Morgan, Evor P., and R. McCarthy, St. Paul, Minn. Throw-on sheave for cable railways	458,913	Sept. 1	571	138	56	1174
Morgan, G. T. (See Ramsey, Philip L., assignor.)						
Morgan, James, Pittsburg, Pa. Feed-table of rolling-mills	450,868	Apr. 21	1902	{ 466 467 }	55	384
Morgan, John, assignor to R. H. Heenan, Manchester, England. Rotary engine and pump	453,652	June 9	748	{ 192 193 }	55	1297
Morgan, John B., assignor of three-fourths to E. F. Morgan, Middleborough, Mass. Steam- joint for rotary pipe or hollow shafting	459,692	Sept. 15	1819	456	56	1433
Morgan, John H., Jr., assignor to G. Cutter, Chicago, Ill. Automatic supporting and lock- ing device	455,547	July 7	401	105	56	78
Morgan, Octavius, and J. Crowley; said Crowley assignor of part to J. Douglas, Los Angeles, Cal., W. H. Burnett, Onray, Cole., A. Salter and A. D. Hunt, London, England. Signaling apparatus	444,991	Jan. 20	1639	420	54	336
Morgan, Richard C., <i>et al.</i> (See Shely, John D. and J. H., assignors.)						
Morgan, Robert A., Jr., Boston, and G. C. Bosson, Jr., Lawrence, Mass. Automatic safety cut-out for electrical conductors	463,867	Nov. 24	2628	{ 685 686 }	57	1083
Morgan, Robert W., New York, N. Y. Check-book	461,907	Oct. 27	2228	551	57	450
Morgan, Vansandt, Winamac, Ind. Wick-trimmer	465,384	Dec. 15	2206	566	57	1572
Morgan, Waitman M., Kansas City, Mo. Power-conveyer for traction-vehicles in cable railways	454,829	June 23	2318	648	55	1648
Morgan, Wesley, Chicago, Ill. Grain-scouring machine	444,763	Jan. 13	1233	320	54	249
Morgan, William H., Ware, Mass. Lap-smoothing device for cotton-pickers	463,533	Nov. 17	2077	546	57	970
Morgan, William J. (See Bridwell and Morgan.)						
Morgeneier, Robert, and J. P. Bergeron, assignors of one-third to W. J. Landon and O. N. Roberts, Winona, Minn. Duplicating-machine	456,423	July 21	1785	{ 472 473 474 }	56	357

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Morgridge, Frank P., <i>et al.</i> (See Hillier, Thomas A., assignor.)						
Moriarty, Thomas. (See Burke, James A., assignor.)						
Morin, William, Camden Point, Mo. Cultivator and guide attachment	453,725	June 9	861	223	55	1319
Morison, Alexander, Alpena, Mich. Flax brake and scutcher	463,125	Nov. 10	1444	373 374	57	840
Morison, David S., Estilville, Va. Animal-poke	458,476	Aug. 25	2534	617	56	1034
Morison, Donald B., Hartlepool, England. Water-gage	456,629	July 28	2124	561 562	56	430
Morison, Donald B., Hartlepool, England. Steam generator or evaporator	460,150	Sept. 29	2532	630 631 632	56	1582
Morison, Joseph H., Centralia, Kans. Overshoe attachment	465,189	Dec. 15	1883	477	57	1511
Morley Button Manufacturing Company. (See Ellery, Robert L., assignor.)						
Morley Button Manufacturing Company. (See Gooding and Beauregard, assignors.)						
Morley Button Manufacturing Company. (See Gooding and Ellery, assignors.)						
Morley Button Sewing Machine Company. (See Bennett, Walter E., assignor.)						
Morley, Frederic A., Brooklyn, N. Y. Hand-support for cars	449,262	Mar. 31	3212	810	54	1764
Morlot, George, Paterson, N. J. Dyeing apparatus for woven fabrics	460,024	Sept. 22	2326	583	56	1537
Morningstar, Jesse, Archbold, Ohio. Mechanical movement	450,914	Apr. 21	1966	482	55	397
Morningstar, Joseph, New York, N. Y. Drip-catcher	445,569	Feb. 3	74	17	54	526
Moroney, Thomas, <i>et al.</i> (See Shiring, Joseph L., assignor.)						
Morrall, John. (See Morrall, Samuel E. and J.)						
Morrall, Samuel E. and J., Morrall, Ohio. Walking-cultivator	445,186	Jan. 27	1949	503 504	54	404
Morrell Metallic Railway Tie Company. (See Morrell, Robert, assignor.)						
Morrell, Robert, Summit, N. J. Railway-fastening for metallic ties	457,500	Aug. 11	960	243	56	718
Morrell, Robert, assignor to Morrell Metallic Railway Tie Company, Summit, N. J. Metallic railway-tie	457,517	Aug. 11	979	250	56	723
Morrell, Robert, assignor to Morrell Metallic Railway Tie Company, Summit, N. J. Railway-rail fastening for metallic ties	457,518	Aug. 11	980	250	56	723
Morrell, Robert, Summit, N. J., assignor of one-half to C. A. Andrews, W. W. Flanagan, C. H. Harman, M. W. Conkling, and Porter & Kilvert, New York, N. Y. Joint for railway-rails	453,344	June 2	257	68	55	1197
Morrell, William N., and C. A. Eddy, Waterloo, assignors to Geneva Carriage Company, Geneva, N. Y. Front gear for vehicles	466,252	Dec. 29	3602	922	57	1861
Morrill, Charles, New York, N. Y. Bench-stop	457,363	Aug. 11	741	189	56	677
Morrill, Charles F., Boston, Mass. Watch-bow fastener	449,885	Apr. 7	359	91	55	71
Morrill, Charles F., Boston, Mass. Machine for ornamenting watch-cases, &c	454,283	June 16	1649	433	55	1479
Morrill, Charles F., Boston, Mass. Watch-bow fastener	459,195	Sept. 8	1022	249	56	1271
Morrill, Charles W., Butte City, Mont. Gage	452,677	May 19	1991	498	55	967
Morrill, Horace E. (See Parry and Morrill.)						
Morrill, John F. (See Cumnock, Arthur J., assignor.)						
Morrill, Osgood. (See Wells and Morrill.)						
Morrin, Thomas F., Jersey City, N. J. Steam-generator	463,307	Nov. 17	1730	452	57	903
Morrin, Thomas F., Jersey City, N. J. Sectional casing for steam-generators	463,308	Nov. 17	1731	452 453	57	903
Morris, Albert H., Brooklyn, N. Y. Screw-propeller	463,033	Dec. 1	41	11	57	1144
Morris, Charlie F., and T. Chenevert, Blencoe, Iowa. Fumigating compound	450,522	Apr. 14	1330	.....	55	262
Morris, Cornelius S., Moline, Ill. Toy	448,539	Mar. 17	2066	517	54	1530
Morris, Evan, <i>et al.</i> (See Fitz and Rehbus, assignors.)						
Morris, George L., and W. T. Wilson, London, England. Velocipede	460,242	Sept. 29	2666	664	56	1609
Morris, George W., Pittsburg, Pa. Elliptic spring	452,612	May 19	1889	475	55	947
Morris, Henry. (See Morris, John H. and H.)						
Morris, Henry G., and P. G. Salom, Philadelphia, Pa. Secondary-battery plate	466,138	Dec. 29	3434	.....	57	1830
Morris, Isaac L., New York, N. Y. Trousers	456,424	July 21	1794	475	56	358
Morris, James A., Atlanta, Ga. Necktie-fastener	464,886	Dec. 8	1349	339	57	1402
Morris, James L. (See Fisher, David S., assignor.)						
Morris, John H. and H., Seward, Nebr. Combination-lock	451,334	Apr. 28	2639	652 653	55	536
Morris, Jonathan. (See Weaver, John R., assignor.)						
Morris, Joseph B., assignor of one-half to T. S. Williamson, Chester, Pa. Metallic railway-tie and rail-fastening	455,537	July 7	383	98	56	75
Morris, Leonard D., Springfield, Mass. Combination stop-action for organs	456,768	July 28	2365	622 623	56	475
Morris, Robert E. (See Bucklin, John E., assignor.)						
Morris, Thomas D., Seward, Nebr. Combination-lock	452,887	May 26	2328	587	55	1040
Morris, William B., Seattle, Wash. Stump-puller	449,858	Apr. 7	327	84	55	65
Morris, William B., Seattle, Wash. Door-securer	452,947	May 26	2436	614	55	1062
Morris, William B., Seattle, Wash. Stump-puller	457,092	Aug. 4	250	65	56	581
Morris, William L., Cleveland, Ohio. Ore-crusher	450,890	Apr. 21	1934	474	55	390
Morris, William L., Cleveland, Ohio. Shaking attachment for rocking grates	456,244	July 21	1494	396 397	56	302
Morris, William L., Cleveland, Ohio. Caliper-joint	458,684	Sept. 1	216	50	56	1107
Morris, William L., Cleveland, Ohio. Axle-making machine	458,685	Sept. 1	217	51	56	1107
Morris, William M., Yardville, N. J. Fabric	453,345	June 2	258	.....	55	1197
Morris, William R., <i>et al.</i> (See Brooks, William J., assignor.)						
Morris, William T., Paris, Ark. Snap-hook	449,491	Mar. 31	3623	912	54	1839
Morrison, Ed. (See Greene, Lawrence P., assignor.)						
Morrison, Franklin P., Big Skin Creek, W. Va. Box-lifter	446,924	Feb. 24	2321	577	54	991
Morrison, George, Chicago, Ill. Saw-filing device	455,727	July 7	701	184	56	135
Morrison, George H., <i>et al.</i> (See Bruce, Norman H., assignor.)						
Morrison, Horatio B., Britt, Iowa. Rock-reamer	444,008	Jan. 6	41	12	54	11
Morrison, James E., Urbana, Ill. Milk-can	446,949	Feb. 24	2357	586	54	998
Morrison, James F. (See Painter, Gwynne E., assignor.)						
Morrison, John C., St. Louis, Mo. Berth-support for sleeping-car seats	446,637	Feb. 17	1842	457	54	890
Morrison, John H., assignor of one-half to Atwood, Crawford Company, Pawtucket, R. I. Feeding device	445,964	Feb. 3	731	178	54	656
Morrison, John J., Lewiston, Idaho. Vehicle-axle coupling	455,849	July 14	896	235	56	181
Morrison, John W., St. Louis, Mo., assignor of one-half to Hagedorn & Merz, Philadelphia, Pa. Shirt-exhibitor	463,842	Nov. 24	2575	671	57	1073
Morrison, Joseph, Windsor, Canada. Nut-lock	455,347	July 7	71	20	56	18
Morrison, Leonard D., assignor to Standard Oil Company of New York, New York, N. Y. Barrel-hooping machine	454,803	June 23	2468	634	55	1640
Morrison, Richard G. (See Riddell and Morrison.)						
Morrison, William, assignor to Hess Electric Storage Battery Company, Des Moines, Iowa. Electrode for secondary batteries	464,676	Dec. 8	1029	257	57	1341

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Morrow, Albert H. (See Cook and Morrow.)						
Morrow, Edward A., Chester, Ark. Car-coupling device	449,423	Mar. 31	3519	886	54	1819
Morrow, Francis B., <i>et al.</i> (See McGowan, Mark J., assignor.)						
Morrow, George L. K., assignor to D. M. Ferry, Detroit, Mich. Mowing-machine	447,342	Mar. 3	99	27	54	1137
Morrow, Henry W. (See Britton and Morrow.)						
Morrow, James. (See Morrow, Richard H. and J.)						
Morrow, Richard H. and J., Washington Court-House, Ohio. Horse-collar pad	453,497	June 2	508	130	55	1244
Morse, Alfred B., Easton, Mass. Speed-regulator	449,688	Apr. 7	60	15	55	13
Morse, Charles L., Athol, Mass. Machine for reseating valves	456,704	July 28	2244	{ 594 595 }	56	453
Morse, Charles W. (See Foster, Matthew H., assignor.)						
Morse, Frank B., Murphy's, Cal. Ore-concentrator	449,292	Mar. 31	3264	828	54	1773
Morse, George D., M. and D. W. Chase, Haverhill, Mass. Automatic salesman and change-maker	447,343	Mar. 3	101	{ 27 28 29 }	54	1137
Morse, Henry T., Boston, Mass., assignor to W. F. Aldrich, Providence, R. I. Self-leveling berth	464,625	Dec. 8	946	233	57	1326
Morse, John B., Lowville, N. Y. Attachment for stove-legs	449,819	Apr. 7	269	69	55	53
Morse, John H., Marion, Ky. Ribbon-box	456,630	July 28	2126	562	56	431
Morse, John R. (See Blasdel and Morse.)						
Morse, John R., Los Angeles, Cal. Hydrocarbon-burner	465,624	Dec. 22	2597	660	57	1657
Morse, Newel. (See Cornell, Harmon W., assignor.)						
Morse, Orville M., Jackson, Mich. Separating-machine. (Reissue)	11,165	May 12	1471	{ 364 365 366 }	55	859
Morse, Orville M., Jackson, Mich. Separating-machine	452,580	May 19	1839	{ 461 462 }	55	937
Morse, Orville M., Jackson, Mich. Separating-machine	452,581	May 19	1842	463	55	937
Morse, Orville M., assignor to Knickerbocker Company, Jackson, Mich. Dust-collector	450,372	Apr. 14	1110	272	55	218
Morse, Orville M., assignor to Knickerbocker Company, Jackson, Mich. Dust-collector	452,584	May 19	1803	453	55	930
Morse, Orville M., assignor to Knickerbocker Company, Jackson, Mich. Flour-bolt	456,584	July 28	2043	540	56	414
Morse, Orville M., assignor to Knickerbocker Company, Jackson, Mich. Separating-machine	456,585	July 28	2046	{ 540 541 }	56	415
Morse, Orville M., Jackson, Mich., assignor to Knickerbocker Company. Flour-bolt	457,923	Aug. 18	1640	429	56	858
Morse, Orville M., Jackson, Mich., assignor to Knickerbocker Company. Flour-bolt	458,305	Aug. 25	2258	551	56	982
Morse, Orville M., assignor to Knickerbocker Company, Jackson, Mich. Dust-collector	460,151	Sept. 29	2536	632	56	1583
Morse, Orville M., assignor to Knickerbocker Company, Jackson, Mich. Dust-collector	460,152	Sept. 29	2537	633	56	1583
Morse, Preston C., assignor of one-half to W. W. Stall, Boston, Mass. Coiled spring	456,833	July 28	2467	648	56	494
Morse, Samuel F. B., Brooklyn, N. Y. Electrical railway system	449,227	Mar. 31	3155	795	54	1753
Morse, Sherburne, Arkansas City, Kans. Carbon-brush clamp for dynamos	463,748	Nov. 24	2440	640	57	1017
Morse, Stephen A., Philadelphia, Pa. Convertible elevator and dumb-waiter	452,888	May 26	2329	588	55	1040
Morse, Wallace A., St. Louis, Mo. Combined steam-boiler and water heater and filter	465,933	Dec. 22	2450	624	57	1629
Morse, Wallace A., assignor of one-half to J. O'Brien, St. Louis, Mo. Steam-boiler	448,583	Mar. 24	2773	701	54	1672
Morse, Wallace A., assignor of one-half to J. O'Brien, St. Louis, Mo. Feed-water heater and purifier	448,984	Mar. 24	2774	702	54	1672
Morse, Wallace A., assignor of one-half to J. O'Brien, St. Louis, Mo. Live and exhaust steam water heater and purifier	460,482	Sept. 29	3033	760	56	1678
Morse, Wallace A., assignor of one-half to J. O'Brien, St. Louis, Mo. Feed-water heater	460,483	Sept. 29	3034	760	56	1678
Morse, William R., Chicago, Ill. Hasp-lock	446,187	Feb. 10	1119	274	54	733
Morris, Charles A. (See Vogler, William, assignor.)						
Morris, Stephen B., Rahway, N. J. Package-holder for railway-car seats	462,723	Nov. 10	797	208	57	713
Morris, Stephen B., Rahway, N. J., and T. F. Bourne, Clifton, N. Y. Sulphur candle	462,085	Oct. 27	2484	616	57	498
Morstatt, George W., New York, N. Y. Window-blind	450,316	Apr. 14	1011	250	55	201
Morstatt, George W., New York, N. Y. Sash-holder	460,690	Oct. 6	259	63	57	52
Morton, Edwin F., Mansfield, Tenn. Picket-wiring fence-machine	452,613	May 19	1890	476	55	947
Morton, Edwin W., White Plains, assignor, by mesne assignments, to J. H. Allen, New York, N. Y. Time-registering stamp	445,570	Feb. 3	75	18	54	526
Morton, Edwin W., White Plains, assignor to J. H. Allen, New York, N. Y. Time and calendar stamp	460,881	Oct. 6	528	135	57	104
Morton, Edwin W., White Plains, assignor to J. H. Allen, New York, N. Y. Printing device for registering mail-boxes	461,362	Oct. 13	1273	{ 323 324 }	57	254
Morton, Edwin W., White Plains, assignor to J. H. Allen, New York, N. Y. Time-indicator for letter-boxes	466,019	Dec. 29	3243	{ 826 827 }	57	1792
Morton, Harry A. (See Leeman, Horace E., assignor.)						
Morton, James, <i>et al.</i> (See Ford, Frederick D., assignor.)						
Morton, John W., Stowe, N. Y. Screw-propeller	463,908	Nov. 24	2690	700	57	1094
Morton, Matthew, Romeo, Mich. Combined portable planer and key-seating machine	453,653	June 9	750	{ 193 194 }	55	1297
Morton, Matthew, Romeo, Mich. Attachment for key-seat-cutting machines	453,654	June 9	752	194	55	1298
Morton, Rufus J., North Danville, assignor of one-half to A. C. Conway, Danville, Va. Bed-brace	460,092	Sept. 22	2439	610	56	1557
Morton, Thomas, and W. Pearce, Birmingham, England; said Morton assignor to said Pearce. Button	462,362	Nov. 3	233	57	57	595
Morton, W. D. (See Bassinger, Stephen, assignor.)						
Morton, William L., South Yarra, near Melbourne, Victoria. Knob attachment	451,035	May 5	93	23	55	597
Morton, William M., New Haven, Conn. Pen-extractor	459,788	Sept. 22	1971	497	56	1468
Mortorff, Noah W., Jennings, Mich. Saw-smithing machine	450,178	Apr. 14	779	197	53	156
Morwitz & Co. (See Schimauský and Fasselt, assignors.)						
Moscrop, John B., Urmoston, England. Fishing-reel	446,102	Feb. 10	965	238	54	707
Moseley, Arthur R. (See Benbow and Moseley.)						
Moseley, Charles S., Dubuque, Iowa. Machine for finishing metal goods	462,671	Nov. 3	696	{ 176 177 178 179 180 181 }	57	685
Moseley, Handsom C., <i>et al.</i> (See Ham, Drayton L., assignor.)						
Moseley, Joseph, and B. Blundstone, Manchester, England. Pneumatic tire	462,013	Oct. 27	2385	591	57	479
Moseley, Thomas E. (See Huneycutt and Moseley.)						
Moseley, William H., Sparta, Wis. Clothes-drier	451,567	May 5	133	44	55	614
Moseley, William R., Jackson, Miss. Baling-press	456,834	July 28	2468	649	56	494
Moser, Benjamin, Brooklyn, N. Y. Cash register and indicator	446,150	Feb. 10	1051	{ 258 259 }	54	722
Moser, Edmund, Pittsburg, Kans. Hand drilling-machine	444,122	Jan. 6	232	56	54	47

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Moser, Friedrich G. (See Elb and Moser.)						
Moser, John, <i>et al.</i> (See Doenitz, August, assignor.)						
Moser, John, and E. Moeckel, Ashland, Wis. Railway-tie	465,874	Dec. 29	2976	760	57	1740
Mosher Arc Lamp Company. (See Mosher, John A., assignor.)						
Mosher, Charles D., Amesbury, Mass. Separator for steam-boilers	454,984	June 30	2818	717	55	1713
Mosher, George D., <i>et al.</i> (See Young, Charles F., assignor.)						
Mosher, J. L., <i>et al.</i> (See Ish, James T., assignor.)						
Mosher, James A., and C. McMahon, Boston, Mass. Piston water-meter	445,070	Jan. 20	1758	453	54	359
Mosher, John A., assignor to Mosher Arc Lamp Company, Abilene, Kans. Electric-arc lamp	446,459	Feb. 17	1581	388	54	839
Mosher, John A., assignor to Mosher Arc Lamp Company, Abilene, Kans. Rheostat	457,090	Aug. 4	248	64	56	580
Mosher, Samuel E., Chillicothe, Ohio. Velocipede	456,631	July 28	2126	562	56	431
Mosher, Samuel E., Chillicothe, Ohio. Velocipede	456,632	July 28	2127	563	56	431
Mosier, Louis N., Harlem, Mo. Detector-bar	447,694	Mar. 3	670	167	54	1245
Mosier, Osia, Buckley, Wash. Foot-support for wood-choppers	459,300	Sept. 8	1179	286	56	1302
Mosler Bank Safe Company. (See King, Phineas F., assignor.)						
Mosler Bank Safe Company. (See Mosler, Moses, assignor.)						
Mosler, Moses, assignor to Mosler Bank Safe Company, Cincinnati, Ohio. Burglar-proof safe	458,637	Sept. 1	135	30	56	1092
Mosler, Moses, assignor to Mosler Bank Safe Company, Cincinnati, Ohio. Burglar-proof safe. (Reissue)	11,204	Nov. 24	2852	737	57	1125
Moss, Abraham. (See Moss, James and A.)						
Moss, Henry E., Kansas City, Mo. Match-lighter	455,348	July 7	72	20	56	18
Moss, James and A., Hebdon Bridge, England. Picking-motion of looms for weaving	452,849	May 26	2264	568	55	1029
Moss, William F., Fitzpatrick's, Ala. Combined plow and fertilizer-distributor	447,156	Feb. 24	2729	676	54	1067
Mossler, Benno, Chicago, Ill. Newspaper-vending apparatus	444,502	Jan. 13	825	215	54	173
Mosterts, Anton, Strasburg, Germany. Anti-snoring bandage	447,695	Mar. 3	671	167	54	1245
Mote, Edward H. (See Herndon, Paul H., assignor.)						
Mott, Abram C., assignor to A. Cox Stove Company, Philadelphia, Pa. Scale-weight	447,136	Feb. 24	2695	668	54	1060
Mott, Charles S., Patchogue, assignor of one-half to G. H. Shaffer, Brooklyn, N. Y. Mast-boop	453,585	June 2	638	163	55	1268
Mott, Frank B., Providence, R. I. Composition for steam pipe and boiler coverings	462,057	Oct. 27	2451	607	57	491
Mott Iron Works, J. L. (See Hammann, Edward, assignor.)						
Mott Iron Works, J. L. (See Reid, John, assignor.)						
Mott, Joseph. (See Stephens and Mott.)						
Mott, Samuel D., Passaic, N. J. Electrical sporting-indicator	444,452	Jan. 13	732	{ 191 192 }	{ 54 54 }	153
Mott, Samuel D., Passaic, N. J. Electrical sporting-indicator	444,453	Jan. 13	735	192	54	154
Mott, Samuel D., Passaic, N. J. Racing-indicator	444,454	Jan. 13	737	{ 192 193 }	{ 54 54 }	154
Mott, Theodore, <i>et al.</i> (See Holway, Nymphus B., assignor.)						
Motter, Isaac, St. Joseph, Mo. Hitching-weight	450,633	Apr. 21	1540	370	55	317
Motzer, John. (See Hampton, James, assignor.)						
Mouat, Laurence, Jr., Chicago, Ill. Transom-lifter	451,698	May 5	389	95	55	653
Mouat, Laurence, Jr., Chicago, Ill. Cylinder lock and key	464,579	Dec. 8	876	215	57	1312
Moulson, Silvino, Gloucester, Mass. Bait-cage	455,758	July 14	753	198	56	154
Moulton, Alvin D. (See Beardsley and Moulton.)						
Moulton, Edward C., San Francisco, Cal. Pea-sheller	457,538	Aug. 11	1011	259	56	729
Moulton, George, Manchester, England. Pantograph engraving-machine	445,321	Jan. 27	2143	{ 554 555 }	{ 54 54 }	444
Moulton, George W., executor. (See Matzeliger, Jan E.)						
Moulton, George W., assignor of one-half to W. E. Nichols, Bridgeport, Conn. Door-check	447,839	Mar. 10	932	234	54	1301
Moulton, Hamilton L., assignor to James Smith Woolen Machinery Company, Philadelphia, Pa. Spool or bobbin	461,686	Oct. 20	1861	461	57	370
Moulton, Luther V. (See Quinn and Moulton.)						
Mount, Henry R., <i>et al.</i> (See Draper and Holmgren, assignors.)						
Mouniford, John H., East Liverpool, Ohio. Machine for cutting potters' pins	450,179	Apr. 14	780	197	55	158
Mounds, Benjamin A., Cairo, Ill. Plumb-level	449,557	Mar. 31	3716	933	54	1856
Mowder, Isaac, Akron, Ohio. Switch-tongue adjuster	449,558	Mar. 31	3717	933	54	1857
Mower, Samuel E., assignor to H. G. Thompson & Sons, New Haven, Conn. Electric-motor mechanism	447,255	Feb. 24	2891	718	54	1100
Mower, Samuel E., assignor to H. G. Thompson & Sons, New Haven, Conn. Electric-motor mechanism	450,970	Apr. 21	2061	508	55	415
Mower, Samuel E., assignor to H. G. Thompson & Sons, New Haven, Conn. Electric-motor mechanism	463,639	Nov. 24	2272	598	57	1016
Mowers, Eugene P., St. Paul, Minn. Printer's quoin	459,071	Sept. 8	822	200	56	1232
Mowll, Charles F., East Cambridge, Mass. Car-coupling	449,559	Mar. 31	3718	934	54	1857
Mowrer, Martin L., Dayton, Ohio. Making quick-malt	461,034	Oct. 13	762		57	154
Moxley, Asher, Marceline, Mo. Sickle-grinder	464,178	Dec. 1	256	63	57	1184
Moxley, John Q., Lewiston, Idaho. Clamp for books, &c	460,754	Oct. 6	353	87	57	69
Moyé, Hermann, Leipsic, Germany. Car-coupling	447,712	Mar. 3	693	173	54	1249
Moyer, Henry J., Frackville, Pa. Knockdown safe	465,190	Dec. 15	1884	477	57	1512
Moyer, Jonah W., Philadelphia, Pa. Abattoir	447,840	Mar. 10	934	234	54	1302
Moyer, Jonah W., Philadelphia, Pa. Overhead railway	459,566	Sept. 15	1613	405	56	1394
Moyer, Jonah W., and G. F. Jackson, Philadelphia, Pa. Overhead railway	448,157	Mar. 10	1428	364	54	1399
Moynahan, Frederick H. S., Boston, Mass. Bicycle	454,583	June 23	2122	{ 547 548 }	{ 55 55 }	1576
Muckle, Henry A., St. Paul Park, Minn. Carriage-body	460,682	Oct. 6	239	59	57	49
Mudd, Frank X. (See Jenkins and Mudd.)						
Mudge, Charles F., Eskridge, Kans. Steam-canning device	454,523	June 23	2020	524	55	1557
Muehsam, Edward. (See Brown, William W., assignor.)						
Mueller, Charles M. (See Hirschheimer and Mueller.)						
Mueller, Emil T., La Crosse, Wis. Cover for incandescent lamps	448,741	Mar. 24	2415	604	54	1603
Mueller, Emil T., La Crosse, Wis. Electric-lamp cover and switch	462,571	Nov. 3	555	135	57	657
Mueller, Fred. (See Edleblute, Lucius S., assignor.)						
Mueller, Johannes, Rudolstadt, Germany. Adjusting device for organs	461,641	Oct. 20	1789	441	57	356
Mueller, Paul H. (See Jennings and Mueller.)						
Mueller, William, St. Louis, Mo. Combined propeller and steerer	462,572	Nov. 3	556	{ 135 136 }	{ 57 57 }	657
Mügel, Paul. (See Zickhoff, Eduard, assignor.)						
Mugerditchyan, Haig D., Chicago, Ill. Coin-operated vending device	455,948	July 14	1047	274	56	208
Mugerditchyan, Haig D., Chicago, Ill. Cuff-holder	457,210	Aug. 4	437	114	56	614
Mugerditchyan, Haig Der, Chicago, Ill. Cuff-holder	447,493	Mar. 3	383	93	54	1190

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Muggeridge, William H., Bellevue, Ky., assignor to J. O. Ward, Orange, and W. Huntington, Montclair, N. J. Hemp-cleaning machine	464,800	Dec. 8	1232	306	57	1379
Mühlenbauanstalt und Maschinenfabrik, vormals Gebrüder Seck. (See Schmidt, Friedrich C., assignor.)						
Muhlfield, Henry J., et al. (See Turner, John, assignor.)						
Muhr's Sons, H. (See Bourquin, Gustave, assignor.)						
Muir, James, et al. (See Wright, Samuel, assignor.)						
Muir, Thomas, Margaretville, N. Y. Butte-worker	447,157	Feb. 24	2732	676	54	1067
Muir, William D. (See Stephens, Randall W., assignor.)						
Muirhead, John, Pittston, Pa. Pipe-clamp	456,769	July 28	2368	623	56	476
Muirhead, John, Pittston, Pa. Drill	456,770	July 28	2369	623	56	476
Mulford, Charles J., New York, N. Y. Chocolate-pot	460,265	Sept. 29	2702	673	56	1616
Mulford, Charles J., New York, N. Y. Chocolate-pot	463,335	Nov. 17	1773	464	57	910
Mulford, Charles J., New York, N. Y. Chocolate-pot	465,327	Dec. 15	2101	537	57	1553
Mulford, Ichabod H., East Orange, assignor of one-half to D. Dodd, Newark, N. J. Thill-coupling	436,051	July 14	1194	314	56	235
Mulholland, William, Los Angeles, Cal. Device for utilizing wave force	458,060	Aug. 18	1853	483	56	899
Mullaly, John, and L. L. Bullock, New York, N. Y. Printing-plate	459,239	Sept. 8	1087	265	56	1284
Mullen, Henry, assignor to American Whip Company, Westfield, Mass. Whip	444,250	Jan. 6	434	109	54	85
Mullen, John W., Lafayette, Ind. Veterinary surgical instrument	450,086	Apr. 7	646	163	55	126
Mullen, Robert H., assignor of one-half to Pearce, Atkins & Co., Cincinnati, Ohio. Mop-wringer	462,100	Oct. 27	2517	625	57	504
Mullennex, Horrace, Alpine, N. Y. Fire-escape	455,232	June 30	3244	823	55	1795
Müller, Adolph M., Adorf, Germany. Insect-guard for bedsteads	459,089	Sept. 8	847	205	56	1236
Müller, August C. F., assignor to Mix & Genest, Berlin, Germany. Microphone	452,758	May 19	2128	535	55	994
Müller, Friederich, and J. G. Greene, Elizabeth, N. J. Circuit-breaker for incandescent-electric-light systems	449,780	Apr. 7	213	54	55	43
Müller, George, Boston, Mass. Automatic water-tight door	459,533	Sept. 15	1560	389	56	1384
Muller, George, Hoboken, N. J. Pick-up and throw-off mechanism for cables	465,191	Dec. 15	1885	478	57	1512
Muller, Gustave, Madalin, N. Y. Fire-escape	446,001	Feb. 10	807	191	54	678
Muller, Henry H., Potosi, Wis. Draft-equalizer	461,248	Oct. 13	1095	279	57	218
Müller, Jacob, Burbach, Germany. Adjustable wrench	451,833	May 5	589	145	55	692
Müller, Johann L., Leipsic, Germany. Mechanical musical instrument	459,590	Sept. 15	1655	414	56	1402
Müller, Joseph. (See Pabst, George F., assignor.)						
Müller, Karl, and M. Woodbridge, New York, N. Y. Puzzle toy	459,233	Sept. 8	1076	263	56	1281
Müller, Louis, Wernigerode, Germany. Feed-trough	463,069	Nov. 10	1346	348	57	821
Müller & Schweizer. (See Schweizer, Jakob, assignor.)						
Müller, Theodor, Magdeburg, assignor to Selwig & Lange, Brunswick, Germany. Centrifugal machine	455,832	July 14	878	230	56	177
Müllers, August, München-Gladbach, Germany, assignor to J. T. Law, New York, N. Y. Napping-machine	458,185	Aug. 25	2042	529	56	942
Mulligan, Bartley T., Brooklyn, N. Y. Type-writing machine	449,560	Mar. 31	3719	934	54	1857
Mullins, John E., Magnolia, Ark. Car-coupling	446,976	Feb. 24	2401	598	54	1006
Mulloy, Nathan P., assignor to American Waltham Watch Company, Waltham, Mass. Device for securing watch-hands to cards	456,335	July 21	1633	432	56	329
Mumford, Arthur G., and A. Anthony, Colchester, England. Direct-acting steam pump-engine	454,059	June 16	1319	344	55	1416
Mumford, William B., Kansas City, Mo. Hot-air radiator	461,484	Oct. 20	1538	377	57	310
Mummery, Edwin G., Detroit, Mich. Hydrocarbon-burner	465,944	Dec. 29	3095	792	57	1764
Munch, William A., Marion, Ala. Musical instrument	465,487	Dec. 22	2364	605	57	1614
Mundhenk, Henry W., Gilman, Iowa. Banner	447,696	Mar. 3	672	167	54	1245
Mundy, John G., Jackson, Mich. Separating-machine	465,582	Dec. 22	2531	644	57	1645
Munger-Colton Manufacturing Company. (See Colton, George A., assignor.)						
Munger, Lyman F., assignor of two-thirds to T. A. Smyth and J. H. McCartney, Rochester, N. Y. Railway-signal	457,855	Aug. 18	1519	395	56	836
Mungiven, James M., Brooklyn, assignor to S. A. Ilsley, New York, N. Y. Gate for paint-cans, &c	456,290	July 21	1571	414	56	317
Municipal Signal Company. (See Davis, Milton G., assignor.)						
Municipal Signal Company. (See Wilson, John C., assignor.)						
Munn, James M., Chicago, Ill. Fish-hook	450,317	Apr. 14	1013	250	55	201
Munn, William H., Milwaukee, Wis. Water-heating gas-burner	450,634	Apr. 21	1541	370	55	317
Munnell, Thomas, Baltimore, Md. Cash-register. (Reissue)	11,169	June 2	664	171	55	1273
Munroe, Peter. (See Ish, John L., assignor.)						
Munroe, Robert, Allegheny, Pa. Man-hole cover	446,151	Feb. 10	1055	259	54	723
Munroe, William C., assignor of one-half to G. W. Hall, New York, N. Y. Artificial draft apparatus	462,214	Oct. 27	2701	680	57	539
Munshower, Lewis D. (See Detar and Munshower.)						
Munsie, James F., Brooklyn, N. Y. Insulator	455,107	June 30	3038	772	55	1755
Munsie, James F., Brooklyn, N. Y. Electric railway	455,233	June 30	3246	824	55	1796
Munsie, James F., Brooklyn, N. Y. Electric railway	455,234	June 30	3248	824	55	1796
Munsing, George D., assignor of one-half to E. J. Couper and A. C. Paul, Minneapolis, Minn. Crocheting-machine	448,664	Mar. 24	2283	572	54	1578
Munson, Albert L., New York, N. Y. Cigarette-machine	447,968	Mar. 10	1145	291	54	1341
Munson, Albert L., New York, N. Y., assignor to Munson & Co., New Haven, Conn. Paper-box machine	448,158	Mar. 10	1429	366	54	1399
Munson & Co. (See Munson, Albert L., assignor.)						
Munson, David, Indianapolis, Ind. Pie-lifter	445,006	Jan. 20	1660	425	54	340
Munson, Edward A., Grand Rapids, Mich. Bolt or rod cutter	446,360	Feb. 10	1408	345	54	792
Munson, Edward A., Grand Rapids, Mich. Car-mover	464,379	Dec. 1	580	142	57	1244
Munson, George, and W. J. Ladd, Brooklyn, N. Y., assignors to Sargent & Company, New Haven, Conn. Lock	458,370	Aug. 25	2369	577	56	1003
Munson, Homer, Mendota, Ill. Synchronizing mechanism for the seconds-hands of clocks	458,716	Sept. 1	258	61	56	1115
Munson Type Writer Company. (See Seifried, Samuel J., assignor.)						
Munton, James, et al. (See Collier, Charles, assignor.)						
Munton, James, Maywood, Ill. Manufacture of blooms for rolled-steel tires	464,077	Dec. 1	109	27	57	1158
Muntz, Phillip, Conway Springs, Kans. Table	456,052	July 14	1196	314	56	236
Murch, John H., assignor to F. J. Gilbert, Boston, Mass. Garment-clasp	447,736	Mar. 3	736	184	54	1257

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Murch, Lewis W., Medora, N. D. Cutting or preparing wood for ornamental and decorative purposes	451,834	May 5	589	116	55	692
Murch, Maynard H., Cleveland, Ohio. Bow for transfer-boats	461,119	Oct. 13	874	225	57	175
Murdock, Edwin F., Washington, D. C. Coin-controlled toy	461,363	Oct. 13	1278	324 325 622 623	57	255
Murdock, Horace B., assignor of two-thirds to A. C. Bishop and C. E. Richmond, Detroit, Mich. Bicycle	463,703	Nov. 24	2379	238	57	1035
Murdock, Thomas J., and J. T. Ashworth, Woonsocket, R. I.; said Ashworth assignor to said Murdock. Bobbin-holder for spinning-spindles	455,857	July 14	907	238	56	182
Murgatroyd, Edward, Colne, England. Scotching device for cart-wheels	449,269	Mar. 31	3222	813	54	1766
Murguletz, Démètre, Brussels, Belgium. Extinguishing device for lamps	446,361	Feb. 10	1409	345 346	54	792
Murley, Thomas, Manchester, Iowa. Holder for books, sheet-music, &c	464,219	Dec. 1	336	81	57	1197
Murnane, Daniel J. (See Sheldon and Murnane.)						
Murnane, Daniel J., and F. W. Drost, St. Louis, Mo. Producing cylindrical printing-rollers	445,932	Feb. 3	678	166	54	644
Murnane, Daniel J., and L. J. Trece, assignors to Champion Heating and Ventilating Company, St. Louis, Mo. Hot-air furnace	457,003	Aug. 4	112	28	56	555
Murnane, Daniel J., and L. J. Trece, assignors to Champion Heating and Ventilating Company, St. Louis, Mo. Smoke-consuming furnace	464,580	Dec. 8	878	216	57	1312
Murphy, Thomas B., West Elizabeth, Pa. Coal-tipple	465,720	Dec. 22	2731	696	57	1684
Murphy, Daniel, Sioux City, assignor to himself and E. Children, East Dubuque, Iowa. Excavating-machine	460,512	Sept. 29	3095	773 774	56	1691
Murphy, Daniel H., Hartford, Conn. Sad-iron	446,533	Feb. 17	1696	416	54	861
Murphy, Daniel H., Hartford, Conn. Commode	454,128	June 16	1418	370 371	55	1434
Murphy, David D. (See Murphy, William, assignor.)						
Murphy, Donald M., St. John, Canada. Sounding toy	465,066	Dec. 15	1670	425	57	1472
Murphy, Edward, Ulrich, Mo. Pipe-wrench	460,591	Oct. 6	74	20	57	16
Murphy, Edward W., and W. D. Mixer, assignors of one-third to A. Weigand, Albert Lea, Minn. Motor for coffee-roasters	465,783	Dec. 22	2830	725	57	1704
Murphy, Elam T., et al. (See Pedigo, M. T. and J. C., assignors.)						
Murphy, Francis, Chicago, Ill. Dredging-machine	461,193	Oct. 13	994	254 255	57	198
Murphy, Frank J., assignor of one-half to A. M. Rundle, Danbury, Conn. Hat-stiffening machine	465,721	Dec. 22	2732	697	57	1684
Murphy, George W., et al. (See Frey and Wayne, assignors.)						
Murphy, George W., Georgetown, Tex. Wire-working implement	463,161	Nov. 17	1501	389	57	859
Murphy, James, et al. (See Green, John, assignor.)						
Murphy, James, Chicago, Ill. Furnace	452,414	May 19	1575	391	55	889
Murphy, James B. (See Beynon, John R., assignor.)						
Murphy, John F., Little Falls, N. Y. Trimmer for sewing-machines	453,429	June 2	406	105	55	1223
Murphy, John H. (See Murphy, Thomas A. and J. H.)						
Murphy, John W., and J. Lennon, Kansas City, Mo. Animal-trap	450,471	Apr. 14	1253	306	55	245
Murphy, John W., and J. Lennon; said Lennon assignor to H. Fisher, Kansas City, Mo. Animal-trap	464,479	Dec. 1	724	177	57	1272
Murphy, Joseph. (See Hartsuff and Murphy.)						
Murphy, Louisa D., Chicago, Ill. Clamp for drapery	453,845	June 9	1030	269	55	1352
Murphy, Patrick J., and T. F. McCarthy, Alexandria, Va. Car-coupling	450,180	Apr. 14	782	197	55	159
Murphy, Peter D., and C. O. Chaplin, Lockport, N. Y.; said Chaplin assignor to said Murphy. Razor-guard	448,159	Mar. 10	1436	367	54	1400
Murphy, Richard, and C. W. Atkinson, Cincinnati, Ohio. Flushing device for urinals. (Reissue)	11,215	Dec. 29	3706	946	57	1881
Murphy, Simon, Bradford, Ohio. Straw-stacker	460,153	Sept. 29	2538	633	56	1583
Murphy, Thomas A. and J. H., assignors of one-third to J. Y. Carroll, Kerens, Tex. Means for operating blowers	464,638	Dec. 8	965	239	57	1330
Murphy, Thomas E. (See Murphy, William F., assignor.)						
Murphy, Thomas H. (See Zoegel and Murphy.)						
Murphy, William, assignor of one-half to D. D. Murphy, Mont Clair, N. J. Toy pin-wheel	454,804	June 23	2470	635	55	1640
Murphy, William A., Brooklyn, N. Y. Clutch	447,033	Feb. 24	2501	622	54	1024
Murphy, William C., Salem, Mass. Wagon	446,562	Feb. 17	1737	427	54	869
Murphy, William F., Iowa City, assignor to T. E. Murphy, North Liberty, Iowa. Road-cart	460,648	Oct. 6	181	47	57	38
Murphy, William H., et al. (See Frey and Wayne, assignors.)						
Murphy, William H., Morgantown, Ind. Bow-bridge sill	459,301	Sept. 8	1180	287	56	1303
Murray, Albert M., Goshen, Ind. Kitchen-cabinet	464,981	Dec. 15	1507	378	57	1442
Murray, Alexander M. (See Baylor, Robert W., assignor.)						
Murray, Charles F., Cedar Falls, Iowa. Car-coupling	449,561	Mar. 31	3722	935	54	1858
Murray, Craig H., Portland, Oreg. Bedstead-tablet	452,348	May 12	1466	363	55	858
Murray, Daniel, Salem, assignor to J. W. Rogers, trustee, Beverly, Mass. Thill-coupling	460,785	Oct. 6	401	97	57	79
Murray, Edward F., et al. (See Walsh, John W., assignor.)						
Murray, Edward J. B., et al. (See Murray, Thomas E., assignor.)						
Murray, Irving S. (See Barnes, Murray, and Lucia.)						
Murray, James, Hillsborough, Ohio. Roller-tablet	465,385	Dec. 15	2206	566	57	1572
Murray, John, New York, N. Y. Toy bank	462,150	Oct. 27	2597	646	57	519
Murray, John, Fort Wayne, Ind. Wood pulley	462,363	Nov. 3	234	58	57	595
Murray, John A. (See Tregurtha, Alfred T., assignor.)						
Murray, John A., Winchester, Mass. Invalid's drinking-vessel	455,452	July 7	243	62	56	49
Murray, John A., Winchester, assignor to F. A. Walker, Boston, Mass. Towel-rack	461,446	Oct. 20	1418	358	57	299
Murray, John T. (See Lucas and Murray.)						
Murray, Kenneth S., London, assignor to Continental Oxygen Company, Limited, Westminster, England. Apparatus for automatically operating valves or cocks	463,534	Nov. 17	2078	546 547	57	970
Murray Overhead Trolley Switch Company. (See Edwards, Daniel W., assignor.)						
Murray, Robert A., Bonne Terre, Mo. Adjusting grinding-rolls	453,376	June 2	303	79	55	1204
Murray, Thomas C., assignor of one-half to T. W. Grosvenor, Herkimer, N. Y. Toy pistol	449,781	Apr. 7	216	55	55	44
Murray, Thomas E., assignor of two-thirds to R. C. Blackall and E. A. Maher, Albany, N. Y. Rod-packing	444,055	Jan. 6	113	28	54	25
Murray, Thomas E., assignor of one-half to E. A. Maher and E. J. B. Murray, Albany, N. Y. Combined cock and coupling for barrels, &c	456,367	July 21	1686	444	56	339
Murray, William, assignor of one-half to C. Butt, Washington, D. C. Attachment for bicycles	445,452	Jan. 27	2334	607	54	481
Murray, William H., Chicago, Ill. Device for regulating the temperature of air	450,869	Apr. 21	1905	467 468 493 494	55	385
Murray, William H., Chicago, Ill. Device for tempering air and water	450,945	Apr. 21	2002		55	405

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Murray, William H., Wandsworth, England. Vaporizer	453,818	June 9	1002	{ 261 262 }	55	1346
Murtha & Burns. (See Weiss, Louis T., assignor.)	451,568	May 5	185	45	55	615
Musgrove, Charles M., Pittsfield, Mass. Stopping mechanism for knitting-machines	449,910	Apr. 7	399	100	55	78
Musselman, Joseph J. (See Musselman, William H. and J. J.)						
Musselman, William H. and J. J., Chili, Ind. Odometer	464,982	Dec. 15	1508	378	57	1443
Mussina, Jacob L., Lewisberry, Pa. Whiffletree-hook	461,959	Oct. 27	2311	573	57	465
Mussinan, Oscar, Jr., assignor to E. Faber, New York, N. Y. Pencil-tip	452,499	May 19	1716	431	55	913
Mustin, Ida C., Philadelphia, Pa. Combination under-garment	462,913	Nov. 10	1105	288	57	774
Muther, Lorenz, assignor to Union Special Sewing Machine Company, Chicago, Ill. Sewing-machine	445,122	Jan. 20	1835	475	54	374
Myer, George V. (See Brown, Mahlon M., assignor.)						
Myers, Andrew G., et al. (See Keyworth, Thomas R., Jr., assignor.)						
Myers, Charles F., McKinstry's Mills, Md. Adjustable brush-handle	448,724	Mar. 24	2387	598	54	1598
Myers, Charles H., Phelps, assignor, by mesne assignments, to Keystone Manufacturing Company, Buffalo, N. Y. Combined ratchet-wrench and screw-driver	446,072	Feb. 10	919	224	54	698
Myers, Charles H., Phelps, assignor, by mesne assignments, to Keystone Manufacturing Company, Buffalo, N. Y. Ratchet wrench and drill	446,073	Feb. 10	920	225	54	699
Myers, Charles H., Phelps, assignor, by mesne assignments, to Keystone Manufacturing Company, Buffalo, N. Y. Attachment for metal-planers	446,074	Feb. 10	921	225	54	699
Myers, Charles H., Phelps, assignor, by mesne assignments, to Keystone Manufacturing Company, Buffalo, N. Y. Combined ratchet-wrench and boring-bit	446,075	Feb. 10	922	225	54	699
Myers, Ephraim H. (See Oberly, Christian, assignor.)						
Myers, Frank, assignor of one-half to M. G. Weber, Buffalo, N. Y. Forge	457,892	Aug. 18	1588	413	56	847
Myers, Frederick, Liverpool, assignor to Mercury Type Writing Machine Company, Limited, London, England. Type-writing machine	463,909	Nov. 24	2691	{ 700 701 }	57	1094
Myers, Frederick, Liverpool, assignor to Mercury Type Writing Machine Company, Limited, London, England. Type-writing machine	463,910	Nov. 24	2698	{ 701 702 }	57	1095
Myers, Henry, Alton, Ill. Lubricator	452,759	May 19	2130	536	55	995
Myers, Henry, Philadelphia, Pa. Wheel-tire	456,705	July 28	2247	595	56	454
Myers, Henry, Philadelphia, Pa. Wheel-tire	459,015	Sept. 8	733	178	56	1216
Myers, Henry S., Brooklyn, N. Y. Preparing ores for amalgamation	447,344	Mar. 3	105		54	1138
Myers, Hiram, Cranston, Mich. Insecticide-distributor	454,117	June 16	1405	367	55	1431
Myers, John F., San Francisco, Cal. Stove for heating and lighting purposes	462,954	Nov. 10	1175	304	57	786
Myers, Joseph C. (See Clemons and Myers.)						
Myers, Lewis H., and S. H. Armstrong, Canton, Ill. Animal-chute	449,228	Mar. 31	3157	796	54	1754
Myers, Louis E., assignor of one-half to W. A. Stern, Philadelphia, Pa. Tying-guide for neckscarfs	455,235	June 30	3250	825	55	1796
Myers, Philip A., Ashland, Ohio. Regulator for windmill-pumps	448,985	Mar. 24	2776	702	54	1673
Myers, Philip A., Ashland, Ohio. Hay-carrier track	465,945	Dec. 29	3096	793	57	1764
Myers, Stephen O., Mount Vernon, N. Y. Self-closing can	444,301	Jan. 6	502	131	54	100
Myers, Theodore A. (See Sweeney and Myers.)						
Myers, Thomas C., Cleveland, Ohio, assignor of one-half to E. L. Marshall, Harbor Springs, Mich. Street-sweeping machine	457,746	Aug. 11	1342	{ 347 348 }	56	796
Myers, William A., Boliver, N. Y. Oil-burner	453,346	June 2	259	68	55	1197
Myers, William H., North Manchester, Ind. Reversible fence-machine	462,724	Nov. 10	798	208	57	714
Myers, William J., assignor to R. D. Nuttall Company, Allegheny, Pa. Support for telephones	455,722	July 7	689	182	56	133
N. B. Abbott Machine Company. (See Curtis, Charles L., assignor.)						
N. O. Nelson Manufacturing Company. (See McFarland, Samuel G., assignor.)						
N. O. Nelson Manufacturing Company. (See Mellin and Hendrick, assignors.)						
N. O. Nelson Manufacturing Company. (See Stifel, Herman C., assignor.)						
N. O. Nelson Manufacturing Company. (See Vosburgh, Jacob, assignor.)						
N. O. Nelson Manufacturing Company. (See Wilson and Delano, assignors.)						
Naber, Joseph, Jr. (See Bartlett and Naber.)						
Naber, Joseph, Jr., Collins, N. Y. Ear for vessels	453,788	June 9	966	251	55	1339
Nacke, Arnold, and A. Brinkmann, Philadelphia, Pa. Adjustable bracket	450,250	Apr. 14	914	226	55	182
Nacken, Werner, Buffalo, N. Y. Machine for dampening and stretching paper	444,222	Jan. 6	394	98,99	54	78
Nadeau, Onesime. (See Gagné, Augustin, assignor.)						
Nadiéin, Metrophanes, assignor to F. Pavlenkoff, St. Petersburg, Russia. Apparatus for obtaining, separating, and disinfecting a fertilizer	463,429	Nov. 17	1929	504	57	941
Nadler, Johann, Vienna, Austria-Hungary. Closing device for soda-water bottles, &c.	462,576	Nov. 3	563	137	57	659
Naegele, Eugene, Philadelphia, Pa. Sash-holder	466,104	Dec. 29	3371	861	57	1817
Näf, Walter, New York, N. Y. Artificial stone	455,924	July 14	1008	263	56	202
Nafis, George R., Brooklyn, N. Y. Bracket	446,761	Feb. 17	2038	507	54	928
Nagel, Jacob. (See Huelsen and Nagel.)						
Nagle, Augustus F., Chicago, Ill. Automatic valve	461,447	Oct. 20	1419	358	57	289
Nagle, Augustus F., assignor to Nagle Automatic Sprinkler Company, Chicago, Ill. Automatic sprinkler	447,004	Feb. 24	2442	607	54	1014
Nagle Automatic Sprinkler Company. (See Nagle, Augustus F., assignor.)						
Nagle, Richard, et al. (See Gilman, Willard H., assignor.)						
Nagle, Richard, Lynn, Mass. Lasting-jack	452,146	May 12	1135	288	55	795
Nagle, Richard, assignor to Edge and Heel Blacking Machine Company, Lynn, Mass. Blacking-machine	454,755	June 23	2393	614	55	1627
Nagler, Robert, assignor of two-fifths to F. Weegmann, San Francisco, Cal. Truss	462,015	Oct. 27	2388	592	57	480
Naidl, Anton. (See Flodin, Lawrence T., assignor.)						
Naidl, Anton, Omaha, Nebr. Truss	461,038	Oct. 13	766	197	57	155
Naidl, Anton, Omaha, Nebr. Truss	461,039	Oct. 13	768	197	57	155
Naidl, Anton, Omaha, Nebr. Truss	461,040	Oct. 13	769	197	57	156
Nance, Lee, Jersey City, N. J. Game apparatus	464,035	Dec. 1	43	12	57	1145
Nance, Thomas, Shelbyville, Tenn. Pen-holder	447,197	Feb. 24	2794	691	54	1080
Nangle, Joseph R. (See Angus, Simmonds, and Nangle.)						
Nangle, Joseph R. (See Simmonds and Angus, assignors.)						
Nangle, Joseph R., et al. (See Poe and Angus, assignors.)						
Napier, William D., Mountain Home, Ark. Tongue-support	446,152	Feb. 10	1056	259	54	723
Napier, William D., Mountain Home, Ark. Harrow	453,020	May 26	2546	644	55	1083
Napion, Louis, Chicago, Ill. Mold for making plaster or composition casts	449,945	Apr. 7	448	112	55	87
Napping Machine Company. (See Clarenbach, Louis, Jr., assignor.)						
Narjot, Ernest, San Francisco, Cal. Gas-engine	448,969	Mar. 24	2783	704	54	1674
Narragansett Machine Company. (See Le Gardo, Ellen, assignor.)						
Narwood, Fredric H., Brooklyn, N. Y. Tenting-machine	458,678	Sept. 1	205	48	56	1105
Nase, John, assignor to Syracuse Specialty Manufacturing Company, Syracuse, N. Y. Nut-lock	462,016	Oct. 27	2389	592	57	480

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Nash, Edmund L., G. G. Stout, and J. R. Davis, Parkersburg, W. Va. Connector for electric wires.....	454,181	June 16	1501	393	55	1450
Nash, Frederic J., Brooklyn, N. Y. Insulation of electric conductors.....	447,896	Mar. 10	1026	258	54	1319
Nash, Frederic J., Brooklyn, N. Y. Electric conductor.....	447,897	Mar. 10	1028	258	54	1320
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Fluid-pressure device for rotary meters.....	449,820	Apr. 7	270	69, 70	55	53
Nash, Lewis H., South Norwalk, Conn., assignor to National Meter Company, New York, N. Y. Rotary water-meter.....	449,821	Apr. 7	273	70, 71	55	54
Nash, Lewis H., South Norwalk, Conn., assignor to National Meter Company, New York, N. Y. Water-meter.....	459,332	Sept. 8	1231	{ 302 303 }	{ 56 56 }	{ 1313 1313 }
Nash, Ralph C., North Pembroke, Mass. Lasting-jack.....	448,299	Mar. 17	1699	430	54	1460
Nashold, Elias, assignor to Sound Arrester Manufacturing Company, Denver, Colo. Sound-arrester.....	462,771	Nov. 10	870	{ 228 229 }	{ 57 57 }	{ 727 727 }
Nashua Saddlery Hardware Co. (See Taber, Orrin, assignor.)						
Nason, Carleton W., New York, N. Y. Hoisting and conveying apparatus.....	448,823	Mar. 24	2531	{ 634 635 }	{ 54 54 }	{ 1626 1626 }
Nason, Horace F., Natick, Mass., assignor of one-half to N. A. Baldwin, Milford, Conn. Sole-sewing machine.....	455,870	July 14	924	{ 242 243 }	{ 56 56 }	{ 186 186 }
Nason, Joseph H., assignor to A. P. Griffin, Somerville, Mass. Self-threading shuttle.....	452,614	May 19	1892	476	55	947
Nathan Manufacturing Company. (See Kaczander and Ruddy, assignors.)						
Nathan, Max. (See Cockfield, Joseph, assignor.)						
National Candy Mold Company. (See Ball, Samuel E., assignor.)						
National Carving Company. (See Snow, Frederick, assignor.)						
National Cash Register Company. (See Boyer, Israel D., assignor.)						
National Cash Register Company. (See Grimes, Charles D., assignor.)						
National Cash Register Company. (See Lord, Charles E., assignor.)						
National Cash Register Company. (See Parkhurst, Edward B., assignor.)						
National Cash Register Company. (See Patterson, John H., assignor.)						
National Chemical and Fertilizer Company. (See Van Ruynebecke, Joseph, assignor.)						
National Company. (See Baldwin, Cyrus W., assignor.)						
National Company. (See Bassett, Norman C., assignor.)						
National Company. (See Foster, Charles E., assignor.)						
National Company. (See Heermans, Thaddeus W., assignor.)						
National Company. (See Otis and Smith, assignors.)						
National Company. (See Reynolds, George H., assignor.)						
National Company. (See Smith, Rudolph C., assignor.)						
National Cotton Seed Oil and Huller Company. (See Faulkner, James J., assignor.)						
National Drying Company. (See Koyl, Charles H., assignor.)						
National Electric Head Light Company. (See Pyle, George C., assignor.)						
National Folding and Enveloping Company. (See McDonald and Stebbins, assignors.)						
National Folding and Enveloping Company. (See Stebbins and McDonald, assignors.)						
National Harrow Company. (See Childs, Orlando J., assignor.)						
National Harrow Company, et al. (See Smith, De Wane B., assignor.)						
National Harrow Company of New York. (See Smith, De Wane B., assignor.)						
National Heating and Ventilating Company. (See Timby, Theodore L., assignor.)						
National Hollow Brake Beam Company. (See Alley, Stephen, assignor.)						
National Hollow Brake Beam Company. (See Robischung, Henry B., assignor.)						
National Lasting Machine Company. (See McPherson, George, assignor.)						
National Machine Company. (See Osterhout, James A., assignor.)						
National Meter Company. (See Nash, Lewis H., assignor.)						
National Safe and Lock Company. (See White, James, assignor.)						
National Salt and Chemical Company. (See Monsanto, Mauricio M., assignor.)						
National Sewing Machine Company. (See Reed, Charles S., assignor.)						
National Shelving Company. (See Roberts, Benjamin F., assignor.)						
National Sliding Hinged Screen Company. (See Bishop, Clarence B., assignor.)						
National Surface Guard Company. (See Hall, James T., assignor.)						
National Surface Guard Company. (See Whittemore, James, assignor.)						
National Tube Works Company. (See Flagler, John H., assignor.)						
National Tube Works Company. (See Patterson, Peter, assignor.)						
National Type Writer Company. (See Unz, Henry H., assignor.)						
National Typographic Company. (See Clephane, James O., assignor.)						
National Typographic Company. (See Scudder, Wilbur S., assignor.)						
National Unicycle Elevated Railway Construction Company. (See Turner and Brown, assignors.)						
National Unicycle Elevated Railway Construction Company. (See Turner, Van Beek, and Brown, assignors.)						
Nants, Alfred, Toledo, Ohio. Vertically-adjustable seat for stools or chairs.....	449,689	Apr. 7	63	15	55	14
Navo, John J., New Orleans, La. Tent.....	453,049	May 26	2590	655	55	1092
Navarro, José F. de, New York, N. Y. Rotary furnace for burning cement, lime, &c.....	457,589	Aug. 11	1091	279	56	745
Navarro, José F. de, New York, N. Y. Rotary furnace for burning cement.....	464,514	Dec. 8	787	193	57	1295
Navarro, José F., New York, N. Y. Manufacturing hydraulic cement.....	464,515	Dec. 8	788	.....	57	1295
Navarro, José F., New York, N. Y. Manufacturing Portland cement.....	464,516	Dec. 8	789	.....	57	1295
Naylor, Arthur, Peekskill, N. Y. Brick-mold sander.....	464,286	Dec. 1	446	107	57	1220
Naylor, Charles E., San Francisco, Cal. Safety-grip brake for cable cars.....	451,949	May 12	780	198	55	734
Naylor, Ernest W., Cleveland, Ohio. Hydraulic traveling crane.....	457,441	Aug. 11	855	221	56	700
Naylor, Ernest W., Cleveland, Ohio. Valve.....	462,727	Nov. 10	803	209	57	715
Naylor, Harry, Oil City, Pa. Auger-handle.....	451,293	Apr. 28	2582	637	55	526
Naylor, Joseph, Bloomfield, N. J. Machine for trimming buttons.....	448,848	Mar. 24	2576	{ 646 647 }	{ 54 54 }	{ 1634 1634 }
Naylor, Joseph R., et al. (See Guillauden, Louis, assignor.)						
Naylor Manufacturing Company. (See Naylor, William H., assignor.)						
Naylor, William H., Philadelphia, Pa., assignor to Naylor Manufacturing Company, Camden, N. J. Stranding and band-twisting machine.....	451,569	May 5	185	45	55	615
Neacy, Thomas J., Milwaukee, Wis. Sprocket-wheel.....	457,420	Aug. 11	827	214	56	694
Neal, James E. (See Carr, Robert S., assignor.)						
Neal, James E. (See Carr, Robert S., assignor.) (Reissue.)						
Neal, John. (See Warner, Isaac M., assignor.)						
Neal, Robert C., et al. (See Walter, Charles F., assignor.)						
Neale, David, Fort Calhoun, Nebr. Anchor-riprap.....	465,968	Dec. 29	3137	804	57	1771
Neavitt, Thomas J., Austin, Tex. Wall and ceiling polish.....	446,265	Feb. 10	1268	.....	54	762
Neczasek, Joseph, Galesburg, Ill. Brick-kiln.....	450,772	Apr. 21	1737	421	55	355
Needham, Thomas H., Providence, R. I. Clutching mechanism for planers.....	453,415	June 2	379	98	55	1218
Neff, John. (See Putt and Neff.)						
Neely, William A., Lynn, Mass. Stay for boots or shoes.....	449,167	Mar. 31	3060	774	54	1736

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Neely, William A., Lynn, Mass. Sewing-machine	454,510	June 23	2052	531	55	1563
Neely, William A., Lynn, Mass. Sewing-machine	463,199	Nov. 17	1560	406	57	870
Neeves, George A., <i>et al.</i> (See Farmer, Julius M., assignor.)						
Neeves, William B., <i>et al.</i> (See Farmer, Julius M., assignor.)						
Neff, Elijah, Milford, assignor of one-half to J. C. Willard, Fort Wayne, Ind. Pump	451,835	May 5	590	146	55	692
Neff, Millroy. (See Stiles, John H., assignor.)						
Negraval, Louis A., Jersey City, N. J., assignor to H. C. Frank and H. Gutmann, New York, N. Y. Cuff-fastener	445,512	Jan. 27	2420	631	54	497
Nehring, William, Evansville, Ind. Wagon-axle	465,625	Dec. 22	2599	660	57	1657
Neider, Fred A., Augusta, Ky. Carriage-curtain fastener	453,762	June 9	920	239	55	1330
Neider, Fred A., Augusta, Ky. Carriage-curtain fastener	453,763	June 9	922	239	55	1330
Neikirk, Charles W. (See Cole and Neikirk.)						
Neilson, Robert, Reynoldston, Pa. Hammer-head	453,720	June 9	858	221	55	1318
Neiman, Alvin B., assignor to Safety Ferrule Company, (limited,) York, Pa. Whiffletree-hook	460,755	Oct. 6	354	87	57	69
Neiman, Eli H., York, Pa. Hedge fence	441,366	Apr. 28	2203	545	55	451
Neitsch, Frank T., Houston, Tex. Cultivator	444,066	Jan. 6	595	153	54	118
Neitzel, Frank C. (See Le Clair, George E., assignor.)						
Nellis, Aaron J., Pittsburg, Pa. Harrow	456,426	July 21	1796	475	56	359
Nellis, Emery D., assignor to Bridge & Beach Manufacturing Company, St. Louis, Mo. Construction of stoves	456,223	July 21	1448	{ 383 384 384 }	{ 56 56 56 }	{ 294 294 294 }
Nelms, Henry L., Jr., Philadelphia, Pa. Blacking brush or dip	453,021	May 26	2547	644	55	1083
Nelms, Markus S., South Pittsburg, Tenn. Saw-swaging machine	464,382	Dec. 1	583	143	57	1245
Nelson, Andrew M., Galesburg, Ill. Combined trunk and folding bed	446,690	Feb. 17	1928	481	54	906
Nelson, Anthony, assignor to J. B. Forsyth, Boston, Mass. Friction-clutch	457,539	Aug. 11	1013	260	56	729
Nelson, Charles H. (See Emerson, Loender C., assignor.)						
Nelson, Charles R., Portland, Me. Hot-water heater	462,772	Nov. 10	872	229	57	728
Nelson, Clark B., Crawfordsville, Ind. Roof-cresting	464,036	Dec. 1	44	12	57	1145
Nelson, Edwin K. (See Berry, William H., assignor.)						
Nelson, George A., Woods, Tex. Rub-iron for wagon-beds	449,425	Mar. 31	3522	887	54	1820
Nelson, Hans J., <i>et al.</i> (See Elgen, Magnus P., assignor.)						
Nelson, Henri. (See Duval and Nelson.)						
Nelson, Joseph M., Coleman, Mich. Station-indicator	463,072	Nov. 10	1350	349	57	822
Nelson, Nels, assignor of one-half to Tappan, Berry & Company, Attleborough, Mass. Punching apparatus	455,289	June 30	3356	847	55	1817
Nelson, Peter W., St. Paul, Minn. Flat-opening blank-book	454,373	June 16	1790	466	55	1504
Nelson, Robert E., Jr., Columbia, Va. Cash-register	449,248	Mar. 31	3187	{ 804 805 805 }	{ 54 54 54 }	{ 1759 1759 1759 }
Nelson, Robert E., Jr., Columbia, Va. Electric cash-register system	449,249	Mar. 31	3194	{ 806 806 806 }	{ 54 54 54 }	{ 1761 1761 1761 }
Nelson, Thomas M. (See Wakefield and Nelson.)						
Nelson, William O., Baltimore, Md., assignor of one-half to T. C. Balderston, Philadelphia, Pa. Mucilage-holder	448,665	Mar. 24	2287	573	54	1579
Nelson, William P. (See Draffin and Nelson.)						
Neracher, Charles, Cleveland, Ohio. Wood-trimming machine	461,162	Oct. 13	939	243	57	187
Nesom, Thomas, Indianapolis, Ind. Folding baby-carriage	457,006	Aug. 4	116	29	56	556
Nesom, Thomas, assignor to Acorn Steam Boiler and Heating Company, Indianapolis, Ind. Steam-boiler	445,410	Jan. 27	2276	590	54	470
Nesmith, John W., and J. H. Morecom, assignors to Colorado Iron Works, Denver, Colo. Street-sprinkler	453,889	June 9	1088	{ 284 285 285 }	{ 55 55 55 }	{ 1362 1362 1362 }
Nesmith, Robert H., assignor of two-thirds to R. E. L. Knight and M. H. Mahana, Dallas, Tex. Automatic track sweeping and oiling attachment for street-cars	452,279	May 12	1343	335	55	836
Nesmith, Samuel D., Cleveland, Ohio. Underground system for electric railways	462,153	Oct. 27	2600	647	57	520
Nessle, John P., Newark, N. J. Nipper or wire-cutter	444,764	Jan. 13	1235	321	54	249
Nessler, Louis D., New York, N. Y. Hair-pin exhibitor	460,445	Sept. 29	2970	743	56	1666
Nethercott, Joseph H., San Francisco, Cal. Brake-head attachment	455,637	July 7	549	143	56	106
Netherwood, William. (See Keighley and Netherwood.)						
Nettlefold, Hugh, and J. Sheldon, assignors to Nettlefolds, Limited, Birmingham, England. Manufacture of screws	452,548	May 19	1793	451	55	928
Nettlefolds. (See Nettlefold and Sheldon, assignors.)						
Nettlefolds. (See Tyers, William O., assignor.)						
Nettleton, Orrin L., Milford, and C. F. Lee, Bridgeport, Conn. Pipe-clamp	453,745	June 9	890	231	55	1324
Nettmann, Albrecht, assignor of one-half to C. Wittershacen, St. Louis, Mo. Fan attachment	465,284	Dec. 15	2036	520	57	1540
Netto, Curt, Dresden, Saxony, Germany. Making sodium or potassium	460,985	Oct. 13	692	179	57	142
Neubert, Fredrick W., Pittsburg, Pa. Artificial limb	450,297	Apr. 14	974	242	55	193
Neuberth, Frank G., <i>et al.</i> (See Neuberth, George E., assignor.)						
Neuberth, George E., Torrington, assignor of two-thirds to C. H. Upson and F. G. Neuberth, Waterbury, Conn. Surface-gage	448,863	Mar. 24	2608	655	54	1639
Neuhurger, Markus, assignor of one-half to T. G. Elmer and G. Anderson, Chicago, Ill. Boot	461,961	Oct. 27	2313	573	57	465
Neudecker, Carl O., Reudnitz, Leipsic, Germany. Aerated-liquid faucet	453,266	June 2	135	36	55	1173
Neuert, Charles A., Boston, Mass., assignor to Boston Electric Register Company, Kittery, Me. Fare-register	455,050	June 30	2940	{ 748 749 749 }	{ 55 55 55 }	{ 1736 1736 1736 }
Neuhaus, Louis, and F. F. Daus, New York, N. Y. Pad for rapid copying	445,977	Feb. 10	752	.....	54	670
Neuhaus, Gustav H., J. F. H. Gronwald, and E. H. C. Oehlmann, Berlin, Germany. Sterilizing apparatus	455,925	July 14	1009	263	56	202
Neuhaus, Gustav H., J. F. H. Gronwald, and E. H. C. Oehlmann, Berlin, Germany. Preparing sterilized chocolate	456,589	July 28	2053	.....	56	417
Neustadt, Nathan E., Milwaukee, Wis. Cover for tobacco-pails	464,931	Dec. 8	1407	355	57	1413
Neutacheer, Allise, Mendota, Ill. Railway-rail joint	444,251	Jan. 6	435	109	54	85
Neuville, Ernest J., London, England. Buckle	454,756	June 23	2395	614	55	1627
Nevegold, Fred, Columbia, Pa. Metal-rolling mill and flattening and edging rolls therefor	460,882	Oct. 6	536	135	57	106
Nevens, George, Brunswick, Me. Track-clearer	462,728	Nov. 10	804	210	57	715
Neveu, Edward de. (See Coe, Marion N., assignor.)						
Neville, Albert J., Canton, Ill. Grain-weigher	465,025	Dec. 15	1610	410	57	1462
Neville, Asa G., Lazearville, W. Va. Glass-pot furnace	451,836	May 5	593	{ 146 147 147 }	{ 55 55 55 }	{ 692 692 692 }
Neville, Asa G., Blairsville, Pa. Apparatus for forming central-draft lamps from glass	457,867	Aug. 18	1537	{ 399 400 400 }	{ 56 56 56 }	{ 839 839 839 }
Nevin & Brother. (See Gwin, Thomas J., assignor.)						
Nevins, William H., Holbrook, Mass. Vamp-skiving machine	459,166	Sept. 8	981	239	56	1263

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New Bremen Machine Company. (See Titus, John C., assignor.)						
New Departure Bell Company. (See Rockwell, Edward D., assignor.)						
New England Autographic Register Company. (See Hobbs, Clarence W., assignor.)						
New England Butt Company. (See McCahey, John, assignor.)						
New England Silk Machine Company. (See Jones, William H., assignor.)						
New England Telephone and Telegraph Company. (See Farnham, Isaiah H., assignor.)						
New England Telephone and Telegraph Company. (See Keller and McCoy, assignors.)						
New Era Gas Fuel Appliance Company. (See Shannon, Oscar M., assignor.)						
New Haven Manufacturing Company. (See Sampson, John E., assignor.)						
New Orleans Manufacturing Company. (See Deeves, John F., assignor.)						
New Process Ice and Refrigerating Machine Company. (See Holden, Daniel L., assignor.)						
New Process Welding and Spinning Company. (See Bevington, James H., assignor.)						
New York Belting and Packing Company. (See Straus, Alexander, assignor.)						
New York Condensed Milk Company. (See Smith and Marcey, assignors.)						
New York Steel Mat Company. (See Beisheim, Henry, assignor.)						
New York Stencil Works. (See Reinhardt, James H., assignor.)						
New York Tartar Company. (See Schedler, Robert W., assignor.)						
New York Wood Fibre Company. (See Hull and McEwan, assignors.)						
Newark Sheet Metal Ware Company. (See Hartley, Simeon, assignor.)						
Newark Watch Case Material Company. (See Milne, Alexander, assignor.)						
Newbaker, John J., Steelton, Pa. Curtain-fixture	452,679	May 19	1993	499	55	967
Newbaker, Philip C., Danville, Pa. Broom	454,757	June 23	2396	614	55	1627
Newberger, Isaac, <i>et al.</i> (See Genett, Louis J., assignor.)						
Newberry, David and J., Vernon, Mich. Potato-harvester	455,599	July 7	489	{ 127 128 }	56	94
Newberry, John. (See Newberry, David and J.)						
Newbold, Charles, <i>et al.</i> (See Krieger, John G., assignor.)						
Newcomb, Alfred. (See Bowring and Newcomb.)						
Newcomb, Erwin B. (See Cloudman, Newcomb, and Clondman.)						
Newcomb, Evander B., assignor to E. K. Smith, Parsons, Kans. Musio-leaf turner	463,913	Nov. 24	2707	703	57	1097
Newcomb, William, Johnsville, N. Y. Railway signaling device	456,836	July 28	2470	{ 649 650 }	56	494
Newcome, Edward F., Lebanon, Ky. Coffee-pot	454,975	June 30	2807	714	55	1710
Newcomer, Peter, Des Moines, Iowa. Elevator and endless carrier	444,540	Jan. 13	882	229	54	184
Newell, Augustus, Chicago, Ill. Tool-post	446,462	Feb. 17	1584	389	54	840
Newell, Augustus, Chicago, Ill. Bushing key-board mortises	446,463	Feb. 17	1585	389	54	840
Newell, Augustus W., Bradford, Pa. Oil-well packer	451,769	May 5	503	124	55	673
Newell, Henry A., Jr. (See Ellert, Louis, assignor.)						
Newell, Hiram F., Manchester, Va. Electric-wire insulator	463,955	Nov. 24	2764	717	57	1109
Newell, Joshua B., Georgiaville, R. I. Reed for looms	457,093	Aug. 4	253	66	56	581
Newell, Randison, Kenton, Tenn. Washing-machine	463,914	Nov. 24	2709	{ 703 704 }	57	1097
Newey, James C. (See Hutchinson and Madgin, assignors.)						
Newhall, John F., Lynn, Mass., assignor to Newhall Shutter Working Company, of Maine. Shutter-worker	445,299	Jan. 27	2109	546	54	436
Newhall Shutter Working Company. (See Newhall, John F., assignor.)						
Newhouse, Frederick, Toledo, Ohio. Velocipede	456,590	July 28	2054	543	56	417
Newhouse, Frederick, assignor to Toledo Metal Wheel Company, Toledo, Ohio. Tricycle	462,086	Oct. 27	2485	617	57	498
Newkirk, Abram, Cleveland, Ohio. Device for tightening wires	445,280	Jan. 27	2089	539	54	432
Newkirk, Abram, Cleveland, Ohio. Fence	457,480	Aug. 11	928	236	56	712
Newland, David J., <i>et al.</i> (See Pendleton, John H., assignor.)						
Newman, Abraham, Brooklyn, N. Y. Non-interference electrical signaling apparatus	449,690	Apr. 7	64	16	55	14
Newman, Abraham, Brooklyn, N. Y. Watchman's time-detector	455,410	July 7	183	47, 48	56	38
Newman, Edwin G. (See Loehner and Newman.)						
Newman, John J., Elkhart, Ind. Machine for waterproofing or coating paper	453,090	May 26	2668	{ 672 673 }	55	1107
Newman, Judson J. (See Dunbar, William, assignor.)						
Newman, Nelson, Springfield, Ill. Hanger for trolley-wires	457,660	Aug. 11	1193	305	56	704
Newman, Nelson, Springfield, Ill., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Cash-carrier	455,349	July 7	73	{ 20, 21 22 }	56	19
Newman, Nelson, Springfield, Ill., assignor, by mesne assignments, to Lamson Consolidated Store Service Company, of New Jersey. Cash-carrier	455,350	July 7	75	{ 21 22 23 }	56	19
Newman, Nelson, assignor of two-thirds to G. A. Sanders and S. J. Willett, Springfield, Ill. Automatic gasoline-burner	445,572	Feb. 3	81	19	54	527
Newman, Nelson, assignor of two-thirds to G. A. Sanders and S. J. Willett, Springfield, Ill. Railway-gate	452,190	May 12	1208	306	55	810
Newman, Nelson, assignor of two-thirds to G. A. Sanders and S. J. Willett, Springfield, Ill. Rotary track-cleaner	457,324	Aug. 4	641	168	56	652
Newman, Nelson, assignor of two-thirds to G. A. Sanders and S. J. Willett, Springfield, Ill. Sanding device for street-cars	457,325	Aug. 4	642	168	56	652
Newman, Nelson, assignor of two-thirds to G. A. Sanders and S. J. Willett, Springfield, Ill. Fire-escape	459,613	Sept. 15	1693	425	56	1408
Newman, Nelson, assignor of two-thirds to G. A. Sanders and S. J. Willett, Springfield, Ill. Switch-operating device	463,580	Nov. 17	2166	572	57	987
Newman, Peter, assignor of one-half to G. Massonne, Indianapolis, Ind. Wood-turning lathe	444,457	Jan. 13	744	{ 194 195 }	54	156
Newman, Samuel. (See Venner, William G., assignor.)						
Newman, Samuel T., Danbury, Conn. Hat-rounding machine	457,057	Aug. 4	183	{ 45 46 47 }	56	568
Newman, Samuel T., assignor to C. H. Merritt, Danbury, Conn. Hat-trimming machine	449,911	Apr. 7	402	{ 100 101 }	55	78
Newman, Samuel T., Danbury, assignor to Hat Dipping Machine Company, South Norwalk, Conn. Hat-dipping apparatus	456,706	July 28	2248	{ 595 596 }	56	454
Newman, Samuel T., Danbury, and E. C. Oakley, Bethel, assignors to H. Griffin and C. H. Merritt, Danbury, Conn. Hat-pouncing machine	447,787	Mar. 10	835	209	54	1283
Newman, Thomas, Poplar Bluff, Mo. Pipe-wrench	450,676	Apr. 21	1604	386	55	329
Newman, Thomas, Poplar Bluff, assignor to W. O. Campbell, St. Louis, Mo. Pipe-wrench	450,972	Apr. 21	2068	510	55	417
Newman, William A., Blue Creek, Ohio. Clothes drier	446,362	Feb. 10	1410	346	54	792
Newman, William C., Ellersong, Va. Feed regulator and register	450,298	Apr. 14	975	242	55	193
Newsome, James A., Roswell, Colo. Toe-weight	451,511	May 5	101	25	55	598
Newton, Charles O., Homer, N. Y. Making hash	464,517	Dec. 8	790	57	1295

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Newton, George, New York, N. Y. Watch-case hinge.....	457,739	Aug. 11	1329	345	56	793
Newton, James O., New Haven, Conn. Electric alarm-clock	458,372	Aug. 25	2371	578	56	1003
Newton, John. (See Quiggin, Daniel A., assignor.)						
Newton, Lewis W. (See Schoen and Newton.)						
Newton, Nelson A., Kalamazoo, Mich. Vehicle-spring	462,323	Nov. 3	167	42	57	582
Newton, Robert, Providence, R. I. Fuel-feeder for furnaces.....	447,544	Mar. 3	456	112	54	1203
Newton, Robert W., Providence, R. I. Automatic fire-extinguisher	449,380	Mar. 31	3438	865	54	1803
Newton, William H., Cartwright, Pa. Window-awning	462,324	Nov. 3	168	43	57	582
Newton, William H., assignor of one-half to A. M. McGee, Macon, Ill. Dehorner	458,537	Aug. 25	2628	640	56	1053
Ney, Jacob and V. L., Canton, Ohio. Hay-elevator	465,195	Dec. 15	1892	479	57	1513
Ney, Jacob and V. L., Canton, Ohio. Suspended track	465,387	Dec. 15	2210	567	57	1573
Ney, Valentine L. (See Ney, Jacob and V. L.)						
Niagara Stamping and Tool Company. (See Edge, Horace L., assignor.)						
Nice, John C., Ockley, Ind. Churn	453,360	June 2	278	74	55	1200
Nicholas, Benjamin F., Providence, R. I. Manufacture of centrifugal presses for speeder-fliers	452,647	May 19	1945	488	55	958
Nicholas, Edward S., and J. R. Turner, Greenville, Ohio. Centrifugal force-pump.....	450,491	Apr. 14	1285	315	55	252
Nicholas, Edward S., and J. R. Turner, Greenville, Ohio. Centrifugal force-pump.....	462,987	Nov. 10	1921	318	57	796
Nicholas, William A., and H. Birnbaum, Rapid City, S. D. Portable soldering-iron and pot-heater	457,661	Aug. 11	1194	306	56	764
Nicholl, Tom J., Chicago, Ill. Nut	460,266	Sept. 29	2707	674	56	1616
Nicholls, George H., Galveston, Tex. Strap and buckle shield	447,158	Feb. 24	2733	676	54	1067
Nichols, Abel P., Jordan Village, Ind. Fan attachment for chairs	452,549	May 19	1795	451	55	928
Nichols, Axtel B., assignor of one-half to A. M. Williamson, Crab Orchard, Nebr. Pruning implement	455,600	July 7	497	128	56	96
Nichols, B. D., et al., administrators. (See Nichols, William D.)						
Nichols, David T., Villa, W. Va. Car-coupling	458,237	Aug. 25	2132	523	56	959
Nichols, Ed. A. (See House, James A., assignor.)						
Nichols, Emory I., assignor to F. A. Huntington and H. P. Dimond, San Francisco, Cal. Governor and valve-movement for gas-engines	453,246	June 2	104	28, 29	55	1168
Nichols, Frederic. (See Savage, William W., assignor.)						
Nichols, George E., Huntington, W. Va. Car-coupling	463,737	Nov. 24	2428	636	57	1044
Nichols Harvester Company. (See Nichols, Marion L., assignor.)						
Nichols, Henry B., Boston, Mass. Support for electric cables	448,359	Mar. 17	1795	453	54	1479
Nichols, Henry B., assignor of one-half to J. W. Linzee, Jr., Boston, Mass. Pipe-coupling	449,566	Mar. 31	3728	936	54	1859
Nichols, Henry C., Hopkinton, R. I. Balanced slide-valve	457,211	Aug. 4	438	114, 115	56	615
Nichols, Jesse M., Ansley, Nebr. Grinding-mill	449,229	Mar. 31	3157	796	54	1734
Nichols, John C. (See Leonard, Brunswick W., assignor.)						
Nichols, John F., Fall River, Mass. Top-roll-grinding machine.....	448,300	Mar. 17	1700	431	54	1460
Nichols, John H., Sheldon, Iowa. Grain-bin alarm	465,488	Dec. 22	2365	606	57	1614
Nichols, Josiah, Chicago, Ill. Hydrocarbon-burner	451,161	Apr. 28	2352	584	55	482
Nichols, L. T., Claremont, Minn. Fire-escape	452,280	May 12	1345	335	55	836
Nichols, L. T., Claremont, Minn. Baling-press	458,478	Aug. 25	2537	618	56	1034
Nichols, Margaret A., et al., administrators. (See Nichols, William D.)						
Nichols, Marion L., assignor to Nichols Harvester Company, New York, N. Y. Knot-tying mechanism	453,267	June 2	136	37, 38	55	1173
Nichols, Philetus. (See Karnes and Nichols.)						
Nichols, Robert C., Boston, Mass. Device for ventilating vehicles.....	452,383	May 19	1521	378	55	879
Nichols & Shepard Company. (See Bryce, James C., assignor.)						
Nichols & Shepard Company. (See Flagg, Eli W., assignor.)						
Nichols, Wilbur E. (See Moulton, George W., assignor.)						
Nichols, William A. (See Barnes, Lewis, assignor.)						
Nichols, William D., deceased, Elgin, Ill.; M. A. and B. D. Nichols, administrators. Wind-mill	465,583	Dec. 22	2533	645	57	1645
Nicholson, Ellis H., Santa Maria, Cal. Straw-separator for thrashing-machines.....	452,948	May 26	2437	615	55	1062
Nicholson, Ezekiel, Lynn, Mass. Wood-screw	453,563	June 2	600	153	55	1261
Nicholson, Francis T., Stamford, Conn., assignor of one-half to R. Mapelsden, Brooklyn, N. Y. Machine for making envelopes.....	448,250	Mar. 17	1591	406, 407	54	1439
Nicholson, James C., San Francisco, Cal. Reversing valve-gear for engines	459,252	Sept. 15	1551	386	56	1382
Nicholson, William A., New York, N. Y. Electric-arc lamp	464,132	Dec. 1	183	45	57	1172
Nickel, David, and C. Zattau, Morris, assignors to Coleman Hardware Company, Chicago, Ill. Spring-hinge	456,497	July 21	1900	502	56	379
Nickel, Franz F., Buffalo, N. Y. Direct-acting engine	465,676	Dec. 22	2675	682	57	1672
Nickel, Franz F., Brooklyn, assignor to W. A. Perry and C. C. Worthington, New York, N. Y. Direct acting engine	451,132	Apr. 28	2305	571	55	472
Nickel Steel Syndicate. (See Marbeau, Henry, assignor.)						
Nickerson, Hiram B., New Bedford, Mass. Piano-forte	458,591	Sept. 1	68	15	56	1079
Nickerson, Hiram B., Cambridge, assignor of one-half to G. W. Eldridge and R. W. Crocker, Vineyard Haven, Mass. Combined chair and fish-plate for railway-rail joints	453,157	May 26	2774	698	55	1126
Nickerson, Sidney T., Topeka, Kans., assignor of forty-nine one-hundredths to H. S. Cable, Colorado Springs, Colo. Seal-lock	465,723	Dec. 22	2735	697	57	1684
Nickerson, William E. (See Berrenberg and Nickerson.)						
Nickerson, William E., Cambridge, Mass., assignor to Beacon Vacuum Pump and Electrical Company, Portland, Me. Vacuum-pump	453,275	June 2	148	42	55	1176
Nickerson, William E., Cambridge, Mass., assignor to Beacon Vacuum Pump and Electrical Company, Portland, Me. Vacuum-pump.....	453,276	June 2	150	42	55	1176
Nickerson, William E., Cambridge, and A. Berrenberg, Somerville, Mass., assignors to Beacon Vacuum Pump and Electrical Company, Portland, Me. Apparatus for flashing and exhausting incandescent electric lamps	447,256	Feb. 24	2894	718	54	1100
Nickerson, William E., Cambridge, and A. Berrenberg, Somerville, Mass., assignors to Beacon Vacuum Pump and Electrical Company, Portland, Me. Air-tension gage	450,795	Apr. 21	1780	432, 433	55	362
Nickerson, William E., Cambridge, and A. Berrenberg, Somerville, Mass., assignors to Beacon Vacuum Pump and Electrical Company, Portland, Me. Vacuum-pump.....	452,441	May 19	1619	402	55	897
Nickerson, William E., Cambridge, and A. Berrenberg, Somerville, Mass., assignors to Beacon Vacuum Pump and Electrical Company, Portland, Me. Vacuum-pump.....	453,277	June 2	151	43	55	1176
Niekum, George S., assignor to himself, W. B. Anderson, J. A. Smith, and E. C. James, Dayton, Ohio. Fan attachment	446,584	Feb. 17	1766	436	54	875
Niclausse, Georges A. L. (See Niclausse, Pierre E. J. and G. A. L.)						
Niclausse, Pierre E. J. and G. A. L., Paris, France. Boiler	460,254	Sept. 29	2681	668	56	1612
Nicol, James, et al. (See Garland, William H., assignor.)						
Nicol, Robert, Jr., Chicago, Ill. Curling-iron	459,146	Sept. 8	943	227	56	1256

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Nicolai, Ludwig. (See Saltzkorn and Nicolai.)						
Nicolans, August, <i>et al.</i> (See Besthoff, Samuel J., assignor.)						
Nicolans, August, assignor of two-thirds to H. Kahn and S. J. Besthoff, New York, N. Y. Thermometer for sad-irons.	448,066	Mar. 10	1301	332	54	1373
Nicolay, John G., Washington, D. C. Folding chair.	445,190	Jan. 27	1955	506	54	406
Niebel, Henry B., Bairdstown, Ohio. Windmill-regulator.	459,333	Sept. 8	1234	303	56	1313
Niedecken, Edward F. (See Vorstman and Niedecken.)						
Niedringhaus, George W., and C. Geiss, assignors to St. Louis Stamping Company, St. Louis, Mo. Hinge.	449,628	Mar. 31	3853	965	54	1882
Niedringhaus, George W., and C. Geiss, St. Louis, Mo. Attaching handles and covers to sheet-metal or other vessels.	463,126	Nov. 10	1447	374	57	841
Nief, Nicolas, and P. Cotte, West Hoboken, N. J. Line or rope holder.	449,567	Mar. 31	3729	937	54	1859
Niekamp, Anton, Maria Stein, Ohio. Thill-coupling.	457,662	Aug. 11	1196	306	56	765
Niel, Paul, and A. Janiot, Paris, France. Gas-motor.	462,447	Nov. 3	361	89, 90	57	619
Nielsen, Jens, Cedar Falls, Iowa. Water or other motor.	453,128	May 26	2727	687	55	1118
Nielsen, Lauritz B., Orange, N. J. Tool-holder.	450,031	Apr. 7	570	142	55	110
Nielson, John F. (See Martin, Morris, assignor.)						
Nier, John W., Kansas City, Mo. Apparatus for sinking disk anchors.	453,712	June 9	848	219	55	1316
Nier, John W., Kansas City, Mo. Holding brush mattress for reveting river-banks.	457,818	Aug. 18	1455	379	56	823
Nighswander, Emanuel, Welsh Run, Pa. Buggy-wrench.	445,431	Jan. 27	2306	598	54	476
Nightingale, Joseph O., Paterson, N. J. Toilet-brush.	448,067	Mar. 10	1302	333	54	1373
Nightingale, William G. (See Benham, Elijah B., assignor.)						
Nile, John, St. Louis, Mo. Roach and insect trap.	464,343	Dec. 1	529	129	57	1235
Niles, Arthur J., Lancaster, N. H. Portable water-closet.	445,191	Jan. 27	1956	506	54	406
Niles, Arthur J., Lancaster, N. H. Portable water-closet.	449,426	Mar. 31	3523	887	54	1820
Niles, Joseph. (See Niles, William F. and J.)						
Niles, Milton C., Chicago, Ill. Rail-joint.	464,696	Dec. 8	1067	265	57	1347
Niles, Milton C., Chicago, Ill. Rail-joint.	464,702	Dec. 8	1078	267	57	1349
Niles Tool Works. (See Coes, Zoraster B., assignor.)						
Niles Tool Works. (See Coes and Reiss, assignors.)						
Niles Tool Works. (See Reiss, George T., assignor.)						
Niles, William F. and J., Babylon, assignor to Vulcanite Manufacturing Company, New York, N. Y. Button, &c.	453,064	May 26	2620	661	55	1097
Nilson, Nils, Minneapolis, Minn. Rotary pump.	452,726	May 19	2073	521	55	983
Nimmo, Archibald, assignor of one-half to T. H. Earley, Philadelphia, Pa. Warp-beam for looms.	460,343	Sept. 29	2834	705	56	1641
Nimmo Company, George. (See Nimmo, George, assignor.)						
Nimmo, George. (See Daly, Michael J., assignor.)						
Nimmo, George, Allegheny, Pa. Crucible for the manufacture of steel.	449,803	Apr. 7	248	62	55	49
Nimmo, George, Allegheny, Pa. Assignor to G. Nimmo Company, of New Jersey. Kiln for crucibles.	444,153	Jan. 6	285	68, 69	54	58
Nisbet, John. (See Blackie and Nisbet.)						
Nisius, Peter, Springfield, Ill. Stem winding and setting watch.	452,384	May 19	1523	378	55	879
Niss, Charles, Jr., Milwaukee, Wis. Sliding Venetian blind and frame therefor.	444,302	Jan. 6	503	{ 131 132 }	54	101
Nitterauer, Charles N., <i>et al.</i> (See Brown, Walter F., assignor.)						
Nittinger, August, Sr., Philadelphia, Pa. Meat or vegetable cutter, fruit-press, &c.	447,581	Mar. 3	508	125	54	1212
Nittinger, Carl, Langensalza, Germany. Brake for vehicles.	446,464	Feb. 17	1587	390	54	840
Nixon, Frank G., Chalk Mound, Kans. Car-coupling.	452,680	May 19	1994	499	55	968
Nixon, Miles G., Waukegan, Ill. Steam-boiler.	462,325	Nov. 3	170	43	57	583
Noad, Jobu H. (See Hime and Noad.)						
Noakes, George, New York, N. Y., and J. Gibbons, assignors to Gibbons Superheating Company, Jersey City, N. J. Cooking apparatus.	463,073	Nov. 10	1351	350	57	822
Noakes, Jas. O. (See Beale, Augustus, assignor.)						
Noakes, William H., Chicago, Ill. Sash-bar machine.	449,130	Mar. 31	3011	761	54	1726
Noar, Isaac, New York, N. Y. Neckscarf.	461,766	Oct. 20	1990	492	57	395
Nobel, Alfred, Paris, France. Celluloidal explosive and making the same.	456,508	July 21	1917	.....	56	382
Noble, Frank, and H. Snyder, Minneapolis, Minn. Scalper and grader.	458,592	Sept. 1	68	15	56	1079
Noble, James, Jr. (See Whipple, George E., assignor.)						
Noble, Moore, San Francisco, Cal. Vapor-forming attachment for grates.	458,328	Aug. 25	2294	560	56	989
Noble, Oliver P., administrator. (See Noble, Oscar W.)						
Noble, Oscar L. (See Childs, Eugene, assignor.)						
Noble, Oscar L., Boston, Mass. Heel-trimming tool.	445,229	Jan. 27	2015	519	54	417
Noble, Oscar W., deceased, Lynn, Mass.; O. P. Noble administrator. Boiler.	456,090	July 14	1243	{ 326 327 }	56	245
Noble, Patrick, San Francisco, Cal. Cable railway.	444,581	Jan. 13	949	246	54	196
Noble, William H., assignor of one-half to H. C. Kalish, Chelsea, Mass. Sheet-metal tubing.	460,651	Oct. 6	188	48	57	39
Nobs, Charles, Newark, N. J. Watch-regulator.	444,438	Jan. 13	747	195	54	156
Nobs, Charles, Newark, N. J. Watch-case spring.	465,584	Dec. 22	2534	645	57	1646
Noee, Henry, Chicago, Ill. Sample-case.	445,857	Feb. 3	570	139	54	623
Noël, Edouard. (See Berger and Noël.)						
Noera, Frank P., Malden, Mass. Oilier.	446,136	Feb. 10	1022	252	54	718
Noggle, Levi, Tarlton, Ohio. Fence.	447,545	Mar. 3	458	112	54	1204
Nolan, Bernard, assignor to McQuire Machinery Company, Chicago, Ill. Friction-clutch.	450,746	Apr. 21	1698	410	55	347
Nolan, Francis. (See Reynolds, Thomas J., assignor.)						
Nolan, John H., Boston, Mass. Game apparatus.	458,405	Aug. 25	2425	591	56	1014
Nolan, Walter N., El Oro, Tlaltenango, Mexico. Tappet.	444,649	Jan. 13	1041	271	54	214
Nolen, Stephen A., McCrory, Ark. Bridle.	457,364	Aug. 11	741	190	56	677
Nolin, John B., and M. G. Young, New Pittsburg, Ohio. Shingle and picket sawing machine.	446,534	Feb. 17	1697	416	54	862
Noll, Charles, <i>et al.</i> (See Trendley, John, assignor.)						
Noone, Hugh, Osceola, Nebr. Windmill.	449,744	Apr. 7	156	38	55	31
Nooney, James D., <i>et al.</i> (See Flynn, William, assignor.)						
Nooney, John, <i>et al.</i> (See Flynn, William, assignor.)						
Nopper, George J., Baltimore, Md. Button-hole sewing-machine.	464,287	Dec. 1	448	{ 107 108 }	57	1220
Norcross, Camillo S., Walnut Grove, Ill. Garden-cultivator.	450,523	Apr. 14	1330	327	55	262
Norcross, Levi W., Fort Worth, Tex. Piano-action.	454,976	June 30	2808	714	55	1710
Norcross, William H. H. (See Perkins and Norcross.)						
Norcross, William M., Philadelphia, Pa. Boring-tool.	457,606	Aug. 11	1117	285	56	750
Nordberg, Bruno V., assignor to Bruno Nordberg Company, Milwaukee, Wis. Air-compressor regulator.	458,975	Sept. 1	664	{ 162 163 }	56	1195

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Nordberg Company, Bruno. (See Claussen, Hans P., assignor.)						
Nordenfelt, Thorsten, assignor to Maxim-Nordenfelt Guns and Ammunition Company, Limited, Westminster, England. Gun	454,374	June 16	1791	{ 466 407 408 }	55	1505
Nordenson, Anton V., Des Moines, Iowa. Combined plumb-level and folding square.	459,446	Sept. 15	1424	357	56	1358
Nordhem, Jetlee B., Chicago, Ill. Indexing letters, &c.	463,640	Nov. 24	2273	599	57	1016
Nordmann, Friedrich G. (See Stecker and Nordmann)						
Nordyke, Sylvanus A., Kansas City, Kans. Bolting-machine	461,843	Oct. 27	2119	522	57	428
Norfolk, Virginia, Peanut Company. (See Vellines, Benton H., assignor.)						
Nörholm, Anton. (See Knudson and Nörholm.)						
Noriega, Eloy, Mexico, Mexico. Telephone	445,475	Jan. 27	2360	613	54	486
Noriega, Eloy, Mexico, Mexico. Telephone	458,479	Aug. 25	2538	618	56	1034
Nordin, Charles A., South Stillwater, Minn. Belt-tightener	455,799	July 14	823	214	56	167
Norman, J. F. (See Rube and Bartholomew, assignors.)						
Norman, Thomas W., Boston, Mass. Covering electric wires	449,168	Mar. 31	3061	774	54	1736
Norman, William W., Allenville, Mo. Extension-ladder	463,868	Nov. 24	2633	686	57	1083
Normand, Joseph M., Springfield, Ohio. Planter	455,290	June 30	3358	{ 847 848 }	55	1817
Norris, Calvin H., assignor of one-half to G. F. Knight, Canton, Ohio. Tuyere	460,060	Sept. 22	2389	597	56	1548
Norris, John W., et al. (See Burton, Augustus G., assignor.)						
Norris, William B., Blairsville, Pa. Lever-lock mechanism	466,254	Dec. 29	3604	923	57	1861
Norris, William E., Middleborough, Mass. Gage for printing-presses	463,641	Nov. 24	2275	599	57	1017
North, Alfred C., Benton Harbor, assignor of one-third to J. Eddy, Flint, Mich. Tag	445,731	Feb. 3	353	91	54	582
North American Machine Company. (See Hamilton, Emery M., assignor.)						
North Branch Steel Company. (See Thomas, Henry W., assignor.)						
North, Charles M., Montclair, N. J., assignor to Lidgerwood Manufacturing Company, New York, N. Y. Conveying apparatus	466,279	Dec. 29	3642	{ 931 932 }	57	1869
North, Edward, Newhall, Cal. Check-book	462,577	Nov. 3	565	137	57	659
North, Harry L., et al. (See Christofferson, Hans, assignor.)						
North & Judd Manufacturing Company. (See Herrick, Frank J., assignor.)						
North, Paul, Cleveland, Ohio. Target-trap	457,442	Aug. 11	857	222	56	700
Northen, John, Chicago, Ill. Hot-air register	448,141	Mar. 10	1405	359	54	1395
Northend, William D. (See Miller, George E., assignor.)						
Northrop, Elihu C., Bodines, assignor of one-half to J. A. Innis, Canton, Pa. Leather-finishing machine	466,182	Dec. 29	3495	892	57	1841
Northrop, James H. (See Draper and Northrop.)						
Northrop, James H. (See Draper, Stimpson, and Northrop.)						
Northrop, James H., assignor to G. Draper & Sons, Hopedale, Mass. Loom	454,805	June 23	2470	{ 635 636 637 }	55	1640
Northrop, James H., assignor to G. Draper & Sons, Hopedale, Mass. Loom	454,806	June 23	2476	637	55	1641
Northrop, James H., assignor to G. Draper & Sons, Hopedale, Mass. Loom-shuttle	454,807	June 23	2478	637	55	1641
Northrop, James H., assignor to G. Draper & Sons, Hopedale, Mass. Loom	454,808	June 23	2479	{ 637 638 }	55	1642
Northrop, James H., assignor to G. Draper & Sons, Hopedale, Mass. Loom shuttle and spindle	454,809	June 23	2484	638	55	1642
Northrop, James H., assignor to G. Draper & Sons, Hopedale, Mass. Loom	454,810	June 23	2486	{ 639 640 641 }	55	1642
Northrop, James H., assignor to G. Draper & Sons, Hopedale, Mass. Spindle for loom-shuttles	454,811	June 23	2494	641	55	1643
Northrup, William B., Charleston, S. C. Type-cleaning attachment for type-writing machines	450,473	Apr. 14	1256	307	55	246
Northrup, Mary A., Kipp, Pa. Device for fastening buttons	458,110	Aug. 18	1925	500	56	914
Northup, Emerson S., et al. (See Osborn, David L., assignor.)						
Northup, Louis L., Providence, R. I. Saw-setting machine	448,742	Mar. 24	2416	604	54	1604
Northwall, Theodore G., Omaha, Nebr. Wagon end-gate	458,109	Aug. 18	1924	500	56	914
Norton, A. O. (See Robinson, Frank, assignor.)						
Norton, Charles H., assignor to Brown & Sharpe Manufacturing Company, Providence, R. I. Grinding-machine	453,022	May 26	2548	645	55	1083
Norton, Charles H., assignor to Leland, Faulconer & Norton Company, Detroit, Mich. Grinder	458,036	Aug. 18	1819	{ 474 475 }	56	892
Norton, Charles H., Detroit, Mich., assignor to Brown & Sharpe Manufacturing Company, Providence, R. I. Stand for grinding or polishing wheels	461,587	Oct. 20	1700	416	57	340
Norton, Eben D., et al. (See Anderson, James J., assignor.)						
Norton, Edwin, et al. (See Bodge, John W., assignor.)						
Norton, Edwin, et al. (See Hodgson, John G., assignor.)						
Norton, Edwin, et al. (See Leavitt, Frank M., assignor.)						
Norton, Edwin, Maywood, assignor to himself and O. W. Norton, Chicago, Ill. Sheet-metal can	460,216	Sept. 29	2629	656	56	1602
Norton, Edwin, Maywood, assignor to himself, and O. W. Norton, Chicago, Ill. Die for drawing sheet metal	460,594	Oct. 6	77	21	57	17
Norton, Edwin, and J. G. Hodgson, Maywood, assignors to said Norton and O. W. Norton, Chicago, Ill. Can-filling machine	458,639	Sept. 1	139	{ 32 33 34 }	56	1093
Norton, Eugene E. (See Crudginton and Norton.)						
Norton, Frederick, assignor of one-half to J. A. Britton, New York, N. Y. Coffee-pot	445,652	Feb. 3	215	58	54	554
Norton, Frederick G., Wankegan, Ill. Shoe-blackening machine	463,164	Nov. 17	1509	{ 391 392 393 }	57	860
Norton, Harold P., Washington, D. C. Form of leads, crayons, or pencils	445,252	Jan. 27	2053	528	54	424
Norton, Henry B., Minneapolis, Minn. Shutter for photographic cameras	446,880	Feb. 24	2239	557	54	977
Norton, John A. (See Andrews and Norton.)						
Norton, John A., Bridgeport, Conn. Electric switch	450,973	Apr. 21	2069	510	55	417
Norton, Loveatus, Escanaba, Mich. Feed-water heater	447,159	Feb. 24	2734	677	54	1067
Norton, Oliver W. (See Norton, Edwin, assignor.)						
Norton, Oliver W. (See Norton and Hodgson, assignors.)						
Norton, Oliver W., et al. (See Bodge, John W., assignor.)						
Norton, Oliver W., et al. (See Hodgson, John G., assignor.)						
Norton, Oliver W., et al. (See Leavitt, Frank M., assignor.)						
Norton, Sheldon. (See Ball and Norton.)						
Norton, William B., Manchester, Conn., assignor to Brosius Motor Sewing Machine Company, Atlanta, Ga. Spring-motor winding-lever	455,291	June 30	3363	848	55	1818
Norton, William B., Manchester, Conn., assignor to Brosius Motor Sewing Machine Company, Atlanta, Ga. Break-joint lever	455,728	July 7	702	184	56	135

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Norwegian Plow Company. (See Swager, Nelson, assignor.)						
Nowill, Stephen, Constantinople, Turkey. Fork-guard	447,644	Mar. 3	605	149	54	1232
Norwich Insulated Wire Company. (See Lisenpard, George, assignor.)						
Norwich Insulated Wire Company. (See McCracken, Edwin D., assignor.)						
Norwood Car Replacer Company. (See Norwood, John E., assignor.)						
Norwood, George, Boston, Mass., and J. J. Rose, Cincinnati, Ohio, assignors to W. T. Haydock, St. Louis, Mo. Spring-connection for vehicles	444,526	Jan. 13	858	223	54	179
Norwood, John E., Sykesville, assignor to Norwood Car Replacer Company, Baltimore, Md. Car-replacer	457,326	Aug. 4	644	169	56	653
Norwood, Richard W., assignor of three-fourths to F. E. Ashford, H. D. Bynum, and S. Moore, Courtland, Ala. Nut-lock	464,440	Dec. 1	665	163	57	1261
Norwood, William J., Albany, N. Y. Washing-machine	444,010	Jan. 6	43	12	54	12
Norwood, William J., Albany, N. Y. Washing-machine	453,777	June 9	946	245	55	1335
Nosker, Orren G., and P. E. Whitson, Sheldon, Ill. Bag-holder	450,747	Apr. 21	1699	411	55	347
Nothhaas, Hugo, Munich, Germany. Device for turning music-sheets	451,976	May 12	822	210	55	742
Nothstine, Elias W., Dundee, Mo. Ironing-table	446,977	Feb. 24	2404	598	54	1007
Nottingham, Richard O., Norfolk, Va. Twine-holder	446,691	Feb. 17	1929	481	54	906
Nourse, Rufus J., Jr., Somerville, Mass. Dinner-boiler	455,760	July 14	755	199	56	154
Novelty Iron Works Company. (See Dickinson, Joseph L., assignor.)						
Novitzky, Simon, et al. (See Young, Charles F., assignor.)						
Nowell, George. (See Merrick, George H., assignor.)						
Nowland, George E., New Boston, Mich. Ladder	445,453	Jan. 27	2335	607	54	481
Noxon, James, Woodstock, Canada. Seeding-machine	451,067	Apr. 28	2204	545	55	452
Noyes, Bernice J., Boston, Mass. Police signaling apparatus	447,058	Feb. 24	2543	632	54	1032
Noyes, Bernice J., Boston, Mass. Police signaling apparatus	447,059	Feb. 24	2546	632	54	1033
Noyes, Bernice J., Boston, Mass. Municipal signal apparatus	447,060	Feb. 24	2549	633	54	1033
Noyes, Bernice J., Boston, Mass. Municipal signal apparatus	447,061	Feb. 24	2551	634	54	1034
Noyes, Bernice J., Boston, Mass. Signal-box	447,062	Feb. 24	2552	634	54	1034
Noyes, Bernice J., Boston, Mass. Multiple-signal transmitter	451,512	May 5	102	25	55	598
Noyes, Bernice J., Boston, Mass. Electric signaling apparatus	466,053	Dec. 29	3390	843	57	1804
Noyes, Bernice J., Boston, and H. F. Eaton, Cambridge, Mass. Light-signal system	450,182	Apr. 14	783	198	55	159
Noyes, George B. (See Bean, Dunnell, and Noyes.)						
Noyes, Joseph K., et al. (See Winans, Thomas J., assignor.)						
Noyes, Joseph P., et al. (See Winans, Thomas J., assignor.)						
Noyes, La Verne W., Chicago, Ill. Tower	457,819	Aug. 18	1456	379	56	824
Noyes, La Verne W., Chicago, Ill. Windmill-tower	457,820	Aug. 18	1459	380	56	824
Noyes, La Verne W., Chicago, Ill. Velocipede	459,016	Sept. 8	734	178	56	1216
Noyes, Walter B., Chicago, Ill. Woven-wire bed-bottom	463,730	Nov. 24	2420	634	57	1043
Nuebling, Louis W., Indianapolis, Ind. Pug-mill	452,147	May 12	1136	288	55	795
Nuebling, Louis W., assignor to United States Encaustic Tile Works, Indianapolis, Ind. Tile-press	457,924	Aug. 18	1642	430	56	858
Nuessle, Edward, Minneapolis, Minn. Vehicle-coupling	455,761	July 14	755	199	56	154
Nugent, Richard C., assignor of one-half to M. D. Jenkins, Harrisburg, Pa. Rein-holder	458,661	Sept. 1	179	42	56	1099
Nugent, Richard C., assignor of one-half to H. C. Jenkins, Harrisburg, Pa. Centering device	460,883	Oct. 6	539	136	57	106
Nugent, Richard C., assignor of one-half to J. Jenkins, Harrisburg, Pa. Device for truing up main or crank pins	460,884	Oct. 6	540	136	57	106
Nuneviller, William. (See Richards, George H., assignor.)						
Nuttall, Robert D., Allegheny, Pa. Removable toothed gear	419,493	Mar. 31	3625	912	54	1840
Nuttall, Robert D., Allegheny, Pa. Trolley for electric cars	462,578	Nov. 3	566	137	57	659
Nutting Electric Manufacturing Company. (See Nutting, Samuel E., assignor.)						
Nutting, Elijah G., Faribault, Minn. Truck	465,489	Dec. 22	2366	606	57	1614
Nutting, Samuel E., assignor to Nutting Electric Manufacturing Company, Chicago, Ill. Dynamo-electric machine	448,666	Mar. 24	2288	573	54	1579
Nutting, Samuel E., assignor to Nutting Electric Manufacturing Company, Chicago, Ill. Friction-clutch	453,587	June 2	639	163	55	1268
Nutting, Samuel E., assignor to Nutting Electric Manufacturing Company, Chicago, Ill. Mechanical movement	454,658	June 23	2252	578	55	1597
Nutting, Samuel E., Chicago, Ill., assignor of one-half to R. A. Welsh, Iron Ridge, Wis. Speed-indicator for shafting	465,047	Dec. 15	1638	417	57	1467
Nutting, Samuel H., et al. (See Bower, Giles W., assignor.)						
Nutting, T. Dexter, et al. (See Mitchell, Albion L. F., assignor.)						
Nütz, George W., assignor to H. D. Justi, Philadelphia, Pa. Dental engine	451,277	Apr. 28	2561	630	55	521
Nütz, George W., assignor to H. D. Justi, Philadelphia, Pa. Dental engine	454,659	June 23	2254	579	55	1598
Nye Boiler Cleaner Company. (See Nye, Henry C., assignor.)						
Nye, David B., Cambridge, and G. W. Copeland, Malden, assignors to Boston Lasting Machine Company, Boston, Mass. Tack-driving machine	464,200	Dec. 1	303	74	57	1191
Nye, Frank, R. F. Denham, and O. Knudson, Lake Park, Iowa. Hand-hold for guns	445,192	Jan. 27	1958	506	54	406
Nye, George E., Chicago, Ill. Steam vacuum-pump	452,080	May 12	1024	259	55	775
Nye, George E., Chicago, Ill. Steam vacuum-pump	454,062	June 16	1325	346	55	1417
Nye, George E., assignor of one-half to E. Trecliek, Philadelphia, Pa. Corn-popper	458,406	Aug. 25	2426	591	56	1014
Nye, George H., Chicago, Ill. Steam vacuum-pump	464,037	Dec. 1	45	12	57	1145
Nye, George W., Chicago, Ill. Alarm-bell for grain-elevators, &c.	416,881	Feb. 24	2241	557	54	977
Nye, Henry C., assignor to Nye Boiler Cleaner Company, Syracuse, N. Y. Boiler-cleaner	450,974	Apr. 21	2070	511	55	417
Nye, Sherman R., Chicopee Falls, Mass. Truss	450,183	Apr. 14	786	198	55	160
Nygren, Axel T., assignor to A. V. Carlson and P. J. A. Nygren, Stockholm, Sweden. Portable scaffold	447,798	Mar. 10	1031	259	54	1320
Nygren, Peter J. A., et al. (See Nygren, Axel T., assignor.)						
Nyman, Howard S. (See Phelps, George N., assignor.)						
O. B. North & Company. (See Smith, Charles H., assignor.)						
O. H. Short & Company. (See Gilbert, Joshua J., assignor.)						
O. S. Kelly Company. (See Cadogan, Thomas C., assignor.)						
O. S. Kelly Company. (See Wright, Edward T., assignor.)						
O. S. Kelly Company et al. (See Winchell, James F., assignor.)						
O'Bannon, James. (See Weir, Andrew H., assignor.)						
O'Bolger, Thomas, Rochester, N. Y. Lasting-machine	455,762	July 14	756	199	56	154
O'Bourke, John, Cienfuegos, Cuba. Cane-planting machine	454,758	June 23	2397	615	55	1628
O'Brien, Arthur, Helena, Mont. Sanitary closet	456,678	July 28	2203	584	56	446

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O'Brien, Dennis V., Boston, Mass. Downdraft tubular boiler.....	449,381	Mar. 31	3439	865	54	1803
O'Brien, Edward J. (See O'Brien, John J., assignor.)						
O'Brien, Francis, Elizabeth, N. J. Furnace for roasting ores.....	464,103	Dec. 1	144	36	57	1164
O'Brien, Geraldine, assignor to J. Holmes, Boston, Mass. Combination under-garment.....	454,812	June 23	2495	641	55	1644
O'Brien, Geraldine, assignor to J. Holmes, Boston, Mass. Combination under-garment.....	454,813	June 23	2496	641	55	1644
O'Brien, John. (See Morse, Wallace A., assignor.)						
O'Brien, John F., Bristol, R. I. Boot-tree rest.....	461,269	Oct. 13	1121	286	57	223
O'Brien, John F., Montreal, Canada. Overshoe.....	462,950	Nov. 10	1168	303	57	785
O'Brien, John J., St. Louis, Mo., assignor to E. J. O'Brien, New Orleans, La. Machine for delinting cotton-seed.....	465,800	Dec. 22	2850	730	57	1708
O'Brien, Joseph P., St. Louis, Mo. Fire-place.....	446,363	Feb. 10	1411	{ 346 347 }	{ 54 54 }	{ 792 792 }
O'Brien, Lyster M. (See Stiter, Henry, assignor.)						
O'Brien, Michael F. C., Louisville, Ky. Tobacco-wagon.....	447,546	Mar. 3	459	113	54	1204
O'Brien, Thomas J., et al. (See Eggleston and Welles, assignors.)						
O'Brien, Thomas W., Wilkes-Barre, Pa. Combined signal and telephone system.....	465,648	Dec. 22	2632	672	57	1665
O'Brien, William H. (See James, William A., assignor.)						
O'Brien, William P., St. Paul, Minn. Pipe tester, closer, and clean-out.....	449,169	Mar. 31	3062	775	54	1736
O'Brien, William S., San Francisco, Cal. Spoon.....	457,748	Aug. 11	1345	348	56	797
O'Carroll, Patrick, Milwaukee, Wis. Music-score holder.....	457,554	Aug. 11	1051	269	56	738
O'Connell, Frank J. (See Haney and O'Connell.)						
O'Connell, Henry P., Detroit, Mich. Voting-booth.....	460,344	Sept. 29	2835	705	56	1642
O'Connell, Joseph J., assignor to Western Electric Company, Chicago, Ill. Metallic circuit test and time-signal for telephone-exchanges.....	454,016	June 9	1263	328	55	1398
O'Connor, Edward L., Cincinnati, Ohio., assignor of one-half to S. Dalsimer, Philadelphia, Pa. Garment-holder.....	452,727	May 19	2074	522	55	983
O'Connor, John. (See Delee, James, assignor.)						
O'Connor, Malachi, Oswego, N. Y. Dumping-car.....	463,956	Nov. 24	2766	717	57	1109
O'Connor, Michael E., Brooklyn, N. Y. Wrench.....	460,155	Sept. 29	2541	634	56	1584
O'Connor, Patrick, assignor to J. Reynolds, New Haven, Conn. Molding-machine.....	462,276	Nov. 3	86	21, 22	57	568
O'Connor, Timothy, St. Louis, Mo. Spring-vehicle.....	461,767	Oct. 20	1991	492	57	395
O'Connor, William. (See Sell and O'Connor.)						
O'Connor, William B., Stockton, Cal. Odorless gas-stove.....	459,111	Sept. 8	895	{ 214 215 }	{ 56 56 }	{ 1247 1247 }
O'Donnell, James J., assignor of one-half to W. C. Marshall, Danville, Va. Clamp for stationary basins.....	464,888	Dec. 8	1352	339	57	1402
O'Donnell, Michael A., Chicago, Ill. Alarm-signal.....	451,639	May 5	303	74	55	636
O'Donnell, Michael T. F., Boston, Mass. Standing waste and overflow pipe for bath-tubs, &c.....	453,308	June 2	198	54	55	1185
O'Ferrall, John T., et al. (See Jones, Washington S., assignor.)						
O'Gara, Thomas, Worcester, Mass. Snow-guard.....	450,251	Apr. 14	914	226	55	182
O'Gorman, Michael, Jersey City, N. J., assignor of one-half to M. A. Cuming, New York, N. Y. Beveling-machine.....	449,131	Mar. 31	3013	{ 761 762 }	{ 54 54 }	{ 1727 1727 }
O'Hare, Hugh, assignor to J. F. Leech, Mount Pleasant, Iowa. Road-scraper.....	466,291	Dec. 29	3670	938	57	1873
O'Hara, John H. (See Seawell & O'Hara.)						
O'Hara, John H., Chicago, Ill. Means for promoting combustion in furnaces.....	459,017	Sept. 8	737	179	56	1216
O'Kane, Daniel, Cambridge, Mass. Bottle-stopper.....	460,486	Sept. 29	3039	761	56	1679
O'Marra, Patrick, Kingston, N. Y. Surveyor's plotting-instrument.....	446,882	Feb. 24	2243	558	54	978
O'Meara, Jeremiah, New York, N. Y. Electric cooking apparatus.....	446,174	Feb. 10	1099	270	54	730
O'Meara, Jeremiah, New York, N. Y. Rheostat.....	447,494	Mar. 3	384	94	54	1190
O'Meara, Jeremiah, New York, N. Y. Electric heater for dental vulcanizers.....	448,743	Mar. 24	2418	605	54	1604
O'Meara, John U. (See Dieterich, Fred G., assignor.)						
O'Neill, James M., Dallas, Tex. Ice-cream freezer.....	445,072	Jan. 20	1761	454	54	360
O'Neil, James C., Cleveland, Ohio. Railway signaling device.....	452,281	May 12	1345	{ 335 336 }	{ 55 55 }	{ 837 837 }
O'Neil, John, Jr., Keeseville, N. Y. Stone-crushing machine.....	452,615	May 19	1892	476	55	948
O'Neil, John H., Philadelphia, Pa. Fan attachment for sewing-machines.....	457,167	Aug. 4	357	91	56	601
O'Neill, Augustus J., Butte City, Mont. Car-brake.....	462,989	Nov. 10	1224	319	57	796
O'Neill, Charles Z., New York, N. Y. Hand cart.....	452,969	May 26	2467	624	55	1068
O'Neill, Ellis I. (See Paxton and O'Neill.)						
O'Neill, Thomas, San Francisco, Cal. Sheave.....	445,818	Feb. 3	513	123	54	612
O'Neill, William R., Milwaukee, Wis. Bicycle.....	444,639	Jan. 13	1026	267	54	211
O'Quinn, Bryant J., Kissimmee, Fla. Clamp.....	456,634	July 28	2131	564	56	432
O'Reilly, Michael, Boston, Mass. Fire-escape.....	459,304	Sept. 8	1183	288	56	1304
O'Reilly, Samuel F., New York, N. Y. Tattooing-machine.....	464,801	Dec. 8	1233	307	57	1379
O'Shaughnessy, Patrick F. (See Sprague and O'Shaughnessy.)						
O'Shea, Dennis, et al. (See Merrow and Sanborn, assignors.)						
O'Shea, John, Jr., et al. (See Merrow and Sanborn, assignors.)						
O'Toole, Richard. (See Loy and O'Toole.)						
Oakley, Edwin C. (See Barnum and Oakley.)						
Oakley, Edwin C. (See Newman and Oakley.)						
Oakman, Samuel, Melrose, Mass. Electric insulator.....	451,950	May 12	781	198	55	734
Oakman, Thomas C., Knoxville, Tenn. Miter-box.....	455,351	July 7	79	23	56	20
Oakman, Thomas C., Pittsfield, Mass. Fastening for shoes.....	462,364	Nov. 3	236	58	57	595
Oakman, Thomas C., Aurora, Ill. Motor-car.....	466,009	Dec. 29	3227	822	57	1788
Oaks, William A. C., assignor to Goodell Company, Antrim, N. H. Fruit parer and corer.....	449,050	Mar. 24	2876	731	54	1693
Oakwood, Charles H. (See Lawrence, George R., assignor.)						
Obdyke, Benjamin P. (See Gordon, William J., assignor.)						
Obenhoff, Albert, Milwaukee, Wis. Bobbin.....	450,730	Apr. 21	1675	404	55	342
Ober, Philip G., assignor to Crane & Breed Manufacturing Company, Cincinnati, Ohio. Casket-handle.....	457,365	Aug. 11	743	190	56	677
Ober, Philip G., and W. B. Houston, assignors to Crane & Breed Manufacturing Company, Cincinnati, Ohio. Casket-handle.....	457,366	Aug. 11	744	190	56	677
Ober, William Y., Lynn, Mass., assignor to Boston Welt Machine Company, Portland, Me. Shoe-sewing machine.....	464,383	Dec. 1	584	144	57	1245
Oberly, Christian, assignor of one-half to E. H. Myers, Carthage, N. Y. Fishing-rod.....	461,106	Oct. 13	860	221	57	173
Obermeyer, Joseph G. (See Miller, John, assignor.)						
Obetz, H. L. (See Hicks, Thomas H., assignor.)						
Odell, Albert P., Bradford, Pa., and W. H. Ferris, Franklinville, N. Y. Gun-cleaner.....	460,986	Oct. 13	695	179	57	142
Odell, Eugene D., and A. Jones, Darien, assignors of one-half to Racine Malleable and Wrought Iron Company, Racine, Wis. Whip-socket.....	445,126	Jan. 20	1841	476	54	375
Odell, John B., Chicago, Ill. Type-distributing apparatus.....	457,481	Aug. 11	929	236	56	712
Odell, Levi J., Lake Geneva, Wis., assignor to Odell Type Writer Company, Chicago, Ill. Type-writing machine.....	457,840	Aug. 18	1491	{ 388 389 }	{ 56 56 }	{ 831 831 }

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Odell Type Writer Company. (See Odell, Lovi J., assignor.)						
Oden, William F., Butte City, Mont. Ore-roasting dish.....	454,759	June 23	2398	615	55	1628
Odokolek, Adolf, Vienna, Austria-Hungary. Recoil-operated machine-gun.....	454,403	June 16	1827	478 479	55	1512
Odum, Isaac H., Oakesdale, Wash. Extension-ladder.....	461,366	Oct. 13	1285	325	57	256
Oehler, Firm of K. (See Rudolph, Christian, assignor.)						
Oehlmann, Emil H. C. (See Gronwald, Johann F. H., assignor.)						
Oehlmann, Emil H. C. (See Gronwald and Oehlmann.)						
Oehlmann, Emil H. C. (See Neuhauss, Gronwald, and Oehlmann.)						
Oehlmann, Emil H. C., Berlin, Germany, assignor to United States Aerophor Air Moistening and Ventilating Company, Boston, Mass. Air-moistening apparatus.....	444,940	Jan. 20	1561	400 401	54	320
Oehlmann, Emil H. C., and J. F. H. Gronwald, Berlin, Germany. Sterilizing apparatus.....	459,302	Sept. 8	1180	307	56	1303
Oehrle Brothers & Co. (See Oehrle, William E., assignor.)						
Oehrle, William E., assignor to Oehrle Brothers & Co., Philadelphia, Pa. Electric conductor.....	464,986	Dec. 15	1526	384	57	1445
Oerlein, Robert, New Orleans, La. Combined folding rule and try-square.....	453,890	June 9	1089	285	55	1362
Oetlinger, William, assignor of one-fourth to W. H. Magoffin, Philadelphia, Pa. Bating.....	450,954	Apr. 21	2027		55	409
Oeyan, Thorstein, Christiania, Norway. Telephone-transmitter.....	443,726	Mar. 24	2389	598	54	1598
Oeyen, Sr., Max von, Chicago, Ill. Bowling-alley.....	460,025	Sept. 22	2328	583	56	1537
Of, George F., New York, N. Y. Storage-rack for moldings.....	465,794	Dec. 22	2842	728	57	1706
Office Specialty Manufacturing Company. (See Jewell, Major R., assignor.)						
Office Specialty Manufacturing Company. (See Yawman, Philip H., assignor.)						
Ogden, Henry, assignor of one-half to J. H. Ogden, Fall River, Mass. Brace for telegraph-poles.....	448,786	Mar. 24	2482	621	54	1616
Ogden, Henry E., assignor to W. L. & H. E. Ogden, Newark, N. J. Drain-pipe.....	455,926	July 14	1010	264	56	202
Ogden, James H. (See Ogden, Henry, assignor.)						
Ogden, W. L. & H. E. (See Ogden, Henry E., assignor.)						
Ogle, Albert, Muncie, Ind. Washing-machine.....	445,338	Jan. 27	2172	563	54	450
Oglebay, Richard E. (See Painter, Thomas M., assignor.)						
Ogleby, John. (See Fowler, Benstead, and Ogleby.)						
Ogrissek, George A., Jersey City, N. J. Vaginal syringe.....	462,988	Nov. 10	1223	318	57	796
Ohio Cultivator Company. (See Schofield, James D., assignor.)						
Ohio Tool Company. (See Dunn and Montgomery, assignors.)						
Ohlson, Charles A. (See Bolton, Samuel S., assignor.)						
Ohnstrano, Enoch, and O. Gustafson, Jamestown, N. Y. Wrench.....	452,907	May 26	2359	596	55	1046
Okey, Joseph B., et al. (See Okey, William C., assignor.)						
Okey, Joseph B., Indianapolis, Ind. Combined harrow and sod-cutter.....	445,507	Jan. 27	2414	630	54	496
Okey, William C., assignor of two-thirds to J. B. Okey and J. S. Fleming, Indianapolis, Ind. Saw-brazing clamp.....	453,983	June 9	1219	316	55	1389
Olan, Johan W. T., assignor of one-half to E. H. Johnson, New York, N. Y. Electric meter.....	455,575	July 7	449	118 119	56	87
Olan, Johan W. T., assignor of one-half to E. H. Johnson, New York, N. Y. Electric-arc lamp.....	455,576	July 7	452	119	56	87
Olan, Johan W. T., assignor of one-half to E. H. Johnson, New York, N. Y. Electric-current meter.....	462,504	Nov. 3	442	109	57	634
Olcott, William J., Bessemer, Mich. Mine-timbers.....	459,857	Sept. 22	2083	523	56	1491
Old, Ausborn F., New York, N. Y. School-desk.....	460,324	Sept. 29	2801	698	56	1635
Old, Ausborn F., New York, assignor to Chichestor Manufacturing Company, Phenicia, N. Y. Book-rack.....	448,251	Mar. 17	1598	407	54	1440
Old, James, Allegheny, Pa. Split pulley.....	459,763	Sept. 22	1934	487 488	56	1462
Oldenbusch, Ernst, Jersey City, assignor to W. Schimper & Co., Hoboken, N. J. Bag-fastening.....	449,912	Apr. 7	404	101	55	79
Oldenbusch, Ernst, Jersey City, assignor to W. Schimper & Co., Hoboken, N. J. Bag-fastening.....	450,870	Apr. 21	1908	468	55	385
Oldershaw, John B., Baltimore, Md. Air-heating stove.....	449,691	Apr. 7	69	17	55	16
Oldershaw, John B., Baltimore, Md. Fire-place heater.....	449,692	Apr. 7	70	17	55	16
Oldershaw, John B., Baltimore, Md. Hot-air furnace.....	449,693	Apr. 7	72	18	55	16
Oldfield, Francis F. W., Peckham, England. Multi-color-printing machine.....	457,663	Aug. 11	1197	306 307	56	765
Oldham, Carrick P., Knoxville, Tenn. Brick-press.....	445,732	Feb. 3	354	92	54	582
Olds, Charles D., Barnard, Mo. Driving mechanism for churns.....	459,303	Sept. 8	1182	287	56	1303
Olds, Henry G., Fort Wayne, Ind. Street letter-box.....	461,209	Oct. 13	1030	261	57	204
Olds, Henry H., Indianapolis, Ind., assignor of one-half to S. Matthews, Mooresville, Ind. Street-railway switch.....	457,404	Aug. 11	803	206	56	690
Olds, Ransom E., Lansing, Mich. Governor for steam-engines.....	456,837	July 28	2476	650	56	495
Olipphant, John, Toledo, Ohio. Fountain-pen.....	448,360	Mar. 17	1797	454	54	1479
Oliver, Addison, et al. (See Miller, James B., assignor.)						
Oliver, Doctor F., Oakland, Cal. Derrick.....	444,367	Jan. 6	597	154	54	118
Oliver, Doctor F., San Francisco, Cal., assignor to Acme Harvester Company, Peoria, Ill. Hay-rake.....	455,004	June 30	2863	728	55	1721
Oliver, Doctor F., Oakland, assignor to Truman, Hooker & Co., San Francisco, Cal. Dirt-scraper.....	463,795	Nov. 24	2505	654	57	1059
Oliver, George R., Cambridge, Mass. Hinge.....	448,301	Mar. 17	1701	431	54	1460
Oliver, Paul A. (See Lenahan, Francis P., assignor.)						
Oliver, Revilo, Chatsworth, Ill. Frame for conveyer-belts.....	452,191	May 12	1209	306	55	810
Oliver, Thomas, Monticello, assignor of one-third to C. J. Peterson, Dubuque, Iowa. Type-writing machine.....	450,107	Apr. 7	676	171 172	55	132
Olivieri, Leonida, Chicago, Ill. Surgical instrument.....	460,987	Oct. 13	696	180	57	142
Olmsted, George W., Daguscahonda, Pa. Fire-escape.....	450,796	Apr. 21	1781	433	55	363
Olmsted, Julius A., assignor to Parker & Whipple Company, Meriden, Conn. Power-equalizing apparatus for clocks.....	462,017	Oct. 27	2390	592	57	480
Olmstead, Levi, Jersey Shore, Pa. Metal handle for crosscut-saws.....	458,552	Aug. 25	2646	644	56	1057
Olney, George H., Brooklyn, and J. W. Harbin, New York, N. Y. Pea-shelling machine.....	466,021	Dec. 29	3249	827	57	1793
Olney Vehicle Spring Support Manufacturing Company. (See Cochennour and Remy, assignors.)						
Olsen, Adolph, assignor of one-third to C. J. McGeary, Boston, Mass. Ventilator and dust-arrester.....	458,538	Aug. 25	2629	640	56	1053
Olsen, Alexander, Hallock, Minn. Crushing-mill.....	445,071	Jan. 20	1760	454	54	360
Olsen, Johan L. W., Copenhagen, Denmark. Apparatus for heating ovens by gas.....	466,127	Dec. 29	3414	874	57	1826
Olsen, Klaus, San Francisco, Cal. Crutch.....	457,519	Aug. 11	981	250	56	723
Olsen, Thore J., Chicago, Ill. Combined land and water vehicle.....	464,227	Dec. 1	349	84	57	1199
Olsen, Tinius, Philadelphia, Pa. Recording testing-machine.....	445,476	Jan. 27	2362	614 615	54	487
Olson, Adolph S., El Dorado, Iowa. Painter's overshoe.....	454,375	June 16	1794	468	55	1505

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Olson, Adolphus P. (See Gustin and Olson.)						
Olson, Andrew, Mishawaka, Oreg. Stringed musical instrument	465,490	Dec. 22	2367	606	57	1615
Olson, Charles K., Red Wing, Minn. Table-leaf support	463,915	Nov. 24	2711	704	57	1098
Olson, Edward, Jewell Junction, Iowa. Stucco for plastering	445,264	Jan. 27	2071		54	428
Olsson, Per P., Stockholm, Sweden. Straight-knitting machine	452,018	May 12	890	228 } 229 }	55	755
Olsson, Per P., Stockholm, Sweden. Knitting-indicator	457,166	Aug. 4	355	91	56	601
Olsson, Per P., Stockholm, Sweden. Knitting-machine	462,957	Nov. 10	1180	306	57	788
Olsson, Sven. (See Pearson and Olsson.)						
Onlor, John T., Cassella, Ohio. Shovel-protector	449,568	Mar. 31	3730	937	54	1859
Onderdonk, Lansing, Chicago, Ill., assignor to Union Special Sewing Machine Company, of Illinois. Machine for holding and sewing fabrics	462,729	Nov. 10	805	210	57	715
Oneida Community. (See Kelley, Harry E., assignor.)						
Oneida Community. (See Wright, Orrin D., assignor.)						
Oneill, John, Plainview, Ill. Straw-stacker	453,091	May 26	2670	673 } 674 }	55	1107
Ongley, Charles E., et al. (See Woolcott and Wilnot, assignors.)						
Ongley, Charles E., New York, N. Y., assignor to Hydraulic Elevator Company, of Illinois. Elevator	446,137	Feb. 10	1022	252 } 253 }	54	718
Ongley, Charles E., assignor of part to O. D. Ballert and A. M. Chisholm, New York, N. Y. Preparing salt for table use	462,730	Nov. 10	807	211	57	716
Onion, Edward D. (See Patten, John, assignor.)						
Openlander, Edward J., assignor of one-third to J. C. King, St. Louis, Mo. Globe-protector for electric-arc lamps	460,652	Oct. 6	189	48	57	39
Opinion Manufacturing Company. (See Winship, Gustavus L., assignor.)						
Opitz, Frank O., Osseo, Minn. Machine for shaving ice	456,838	July 28	2477	651	56	495
Opplann, Mathias, Chicago, Ill. Paper-file	460,156	Sept. 29	2543	634	56	1584
Oppenheimer, Sigmund. (See Davis and Aberle, assignor.)						
Oppenheimer, Simon. (See Gintzburg, Morris, assignor.)						
Oppenheimer, William, London, England. Capsule	462,990	Nov. 10	1225	319	57	797
Oram, John W., assignor to C. W. Lord & Co., Baltimore, Md. Whitewash-brush	448,667	Mar. 24	2290	574	54	1579
Orchard, Henry, Peoria, Ill. Convertible chair	444,845	Jan. 20	1360	352	54	282
Orcutt, Charles H., assignor to J. W. Pearce, Springfield, Ohio. Folding chair	444,011	Jan. 6	44	12	54	12
Orcutt, J. Marcuss, Harrisonburg, Va. Wire-and-slat-fence machine	444,559	Jan. 13	914	238	54	189
Orcutt, William, Abilene, Kans. Corn-harvester	456,055	July 14	1199	315	56	236
Orcutt, William, Abilene, Kans. Lifting-jack	463,336	Nov. 17	1775	464	57	910
Ordway, Alfred. (See Ordway, George F., assignor.)						
Ordway, George F., assignor to A. Ordway, Boston, Mass. Food compound	456,903	July 28	2575		56	514
Ordway, Ira J., Chicago, Ill. Dry closet	449,294	Mar. 31	3267	828	54	1773
Orford, John M., Bridgeport, Conn. Socket for incandescent electric lamps	446,995	Feb. 24	2428	604	54	1011
Orford, John M., Bridgeport, and J. C. English, New Haven, Conn. Electric switch	447,788	Mar. 10	838	210	54	1284
Orme, John, London, England. Apparatus for advertising purposes	452,430	May 19	1601	398	55	894
Ormerod, John, Brooklyn, N. Y., assignor, by mesne assignments, to American Soda Fountain Company, of New Jersey. Soda-water apparatus	465,976	Dec. 29	3150	807	57	1774
Ormsby, Edward G., St. Paul, Minn. Clothes-line reel	456,157	July 21	1350	358	56	276
Ormsby, William, Melrose, Mass. Transom-lifter	466,081	Dec. 29	3334	851	57	1810
Orphy, John W., assignor to C. T. Ham Manufacturing Company, Rochester, N. Y. Lantern	456,962	Aug. 4	63	15	56	545
Orr, James M., East Point, Ga. Combined cotton-seed planter and fertilizer-distributor	446,978	Feb. 24	2405	598 } 599 }	54	1007
Orr, Robert F., Massey, Ala. Fertilizer-distributor	454,977	June 30	2810	715	55	1711
Orr, William, Trenton, N. J. Fire-proof building	456,202	July 21	1419	376	56	289
Orr, William, Trenton, N. J. Fire-proof construction of buildings	462,773	Nov. 10	873	229	57	728
Orr, William, Sr., assignor of two-thirds to C. B. Moore and E. A. Rannels, Rochester, Ind. Portable indoor tent	459,764	Sept. 22	1936	488	56	1462
Orris, Frank, et al. (See Wells and Vowles, assignors.)						
Orswell, Edmund W., et al. (See Keene, Samuel D., assignor.)						
Orth, Christian, Fort Wayne, Ind. Vegetable-cutter	460,267	Sept. 29	2708	675	56	1617
Ortner, Alexander. (See Bertsche and Ortner.)						
Ortner, John E., Newark, N. J. Pocket-book clasp	455,850	July 14	897	236	56	181
Orton, Lyman O. (See Berry and Orton.)						
Orwig, Samuel H., Lewisburg, Pa. Hydrant	448,727	Mar. 24	2392	599	51	1599
Osborn, Albert S., Rochester, N. Y. Ink-plate for type-writers	454,660	June 23	2255	579	55	1598
Osborn, David L., assignor of two-thirds to D. G. Blair and E. S. Northup, Kansas City, Mo. Combined aerial ladder and elevator	445,193	Jan. 27	1959	506 } 507 }	54	406
Osborn, David L., assignor of two-thirds to D. G. Blair and E. S. Northup, Kansas City, Mo. Aerial ladder for firemen and others	446,560	Feb. 17	1735	426 } 774 } 775 } 776 }	54	869
Osborn, Francis C., Detroit, Mich. Cash register and indicator	455,111	June 30	3045		55	1757
Osborn, Francis M., Port Chester, N. Y. Tooth-brush	457,007	Aug. 4	118	29	56	556
Osborn, Frank S., and C. E. Foster, Washington, D. C., assignors to Fenton Metallic Manufacturing Company, Jamestown, N. Y. File-box	456,591	July 28	2055	544	56	417
Osborn, George L. (See Armstrong, Bigelow, and Osborn.)						
Osborn, Henry E., Lancaster, Pa. Producing ornamental open-work surfaces on metal	455,051	June 30	2944	749	55	1737
Osborn, Luke W., Joliet, assignor to T. C. Mills, Millsdale, Ill. Vulcanized paint	456,659	July 28	2173		56	440
Osborn, Luke W., assignor to J. F. Wilcox and J. R. McKay, Joliet, Ill. Painting	450,087	Apr. 7	647		55	127
Osborn, William, Duluth, Minn. Sand-scow	465,724	Dec. 22	2737	698	57	1685
Osborne, Andrew J., Erie, Ill. Hand-cultivator	460,157	Sept. 29	2544	634	56	1584
Osborne & Cheesman Company. (See Durand, David L., assignor.)						
Osborne & Company, D. M. (See Salzman, Christian H., assignor.)						
Osborne, Henry F., Newark, N. J. Strap-trimming tool	444,012	Jan. 6	46	13	54	12
Osborne, John H., Auburn, N. Y. Screw-propeller	453,361	June 2	279	74	55	1200
Osborne, John W. (See Clark and Osborne.)						
Osborne, Jonas B., Daggett, Cal. Traction-wagon-steering apparatus	465,491	Dec. 22	2368	606 } 607 }	57	1615
Osborne, Joseph A., et al. (See Jackson, James E., assignor.)						
Osborne, Michael W., et al. (See Baker, James H., assignor.)						
Osborne, Robert, Homestead, Pa. Rope holder and fastener	454,760	June 23	2399	615	55	1628
Osborne, Samuel J., Allegheny, Pa. Tripod	464,384	Dec. 1	586	144 } 145 }	57	1245
Osborne, Thomas B., New Haven, Conn. Composition to be used as a varnish, lacquer, or glue	456,772	July 28	2371		56	477
Osborne, Thomas B., New Haven, Conn. Extracting zein	456,773	July 28	2372		56	477

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Osborne, Thomas D., assignor of one-half to P. Carroll, Freeport, Ill. Car-brake	455,927	July 14	1012	264	56	202
Osgood, Isaac, Chicago, Ill. Folding bed	445,629	Feb. 3	173	45, 46	54	545
Osgood, Joseph H., Peabody, Mass. Medicinal plaster	416,610	Feb. 17	1798	444	51	882
Osgood, Joseph H., Peabody, Mass. Type-writing machine	447,789	Mar. 10	839	210	51	1284
Osgood, Joseph H., Peabody, Mass. Paper-guide for type-writing machines	458,111	Aug. 18	1925	500	56	914
Osgood, W. O. (See Parker, Sidney, assignor.)						
Osius, George. (See Stroh and Osius.)						
Osner, William, Chicago, Ill. Subway and connection for electric railways	455,763	July 14	757	200	56	155
Ossheimer Brothers. (See Loret, Henri, assignor.)						
Ossso, C. Dell', <i>et al.</i> (See Rowland, Henry A., assignor.)						
Ost, Louis G., <i>et al.</i> (See Dougherty, George C., assignor.)						
Ostby, E. C., <i>et al.</i> (See Berlepsch, Henry J., assignor.)						
Ostenberg, John A., Des Moines, Iowa. Automatic weighing and packing machine	446,266	Feb. 10	1268	311	54	762
Ostenberg, John A., Des Moines, Iowa. Continuous automatic starch-table	447,790	Mar. 10	841	211	54	1284
Ostenberg, John A., Des Moines, Iowa. Continuous automatic machine for the manufac- ture of starch	450,492	Apr. 14	1287	315 316	55	253
Oster, James S., Braymer, Mo. Churn	456,839	July 28	2478	651	56	495
Oster, Valentine, St. Louis, Mo. Hot-air chimney-flue draft	454,492	June 23	1972	514	55	1548
Oster, Valentine, St. Louis, Mo. Water filter and purifier	457,008	Aug. 4	118	29	56	556
Osterberg, August F. S., assignor to Osterberg & Hutchins, Boston, Mass. Piano-action ..	453,603	June 2	662	170	55	1273
Osterberg & Hutchins. (See Osterberg, August F. S., assignor.)						
Ostergren, Otto F., and A. K. Schaap, Richmond, Va. Garment-protector	446,819	Feb. 17	2125	528	54	947
Osterhout, James A., assignor to National Machine Company, Troy, N. Y. Machine for cutting and stitching button-holes	447,791	Mar. 10	843	211 212	54	1285
Osterhondt, Jeremiah, Brooklyn, assignor to R. A. Chesebrough, New York, N. Y. Pile or dock-log	459,500	Sept. 15	1505	377	56	1373
Ostermayer, Eugen, Erfurt, assignor to Farbwerke, vormals Meister, Lucius & Brining, Höchst-on-the-Main, Germany. Compound of antipyrine and iodine	454,223	June 16	1561		55	1462
Ostlund, Adolph, Centerville, Iowa. Convertible chair for children	452,168	May 12	1177	298	55	804
Ostmann, Richard O., Steglitz, Germany. Counting device for linear measures	452,981	May 26	2489	630	55	1072
Ostrander Repeating Gun Company. (See Ostrander, Willis H., assignor.)						
Ostrander, Willis H., Merced, assignor to Ostrander Repeating Gun Company, San Fran- cisco, Cal. Repeating breech-loading gun	450,773	Apr. 21	1740	422	55	355
Ostrom, Charles A., H. H. Thiellesen, and S. C. Wampler, Custer City, S. D. Clothes-pin ..	444,303	Jan. 6	506	132	54	101
Ostrom, Freeland W., Bridgewater, Conn. Bath's appliance	450,318	Apr. 14	1014	251	55	201
Ostrom, Freeland W., assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Sewing-machine for stitching and cutting button-holes	463,295	Nov. 17	1709	446	57	899
Otis Brothers & Company. (See Foster, Charles E., assignor.)						
Otis Brothers & Company. (See Otis and Smith, assignors.)						
Otis Brothers & Company. (See Smith, Rudolph C., assignor.)						
Otis, Clark, Farmer Village, N. Y. Steam-radiator	447,241	Feb. 24	2874	714	54	1096
Otis Company. (See Gates, Frank H., assignor.)						
Otis, Norton P., Yonkers, N. Y. Elevator	447,899	Mar. 10	1032	259	54	1320
Otis, Norton P., and R. C. Smith, Yonkers, N. Y. Electric elevator	444,640	Jan. 13	1027	267 268	54	212
Otis, Norton P., and R. C. Smith, Yonkers; said Smith assignor to Otis Brothers & Com- pany, New York, N. Y. Electric motor	458,976	Sept. 1	668	163 164	56	1196
Otis, Norton P., and R. C. Smith, Yonkers, N. Y., assignors, by mesne assignments, to Na- tional Company, of Illinois. Safety device for electric elevators	458,977	Sept. 1	670	164	56	1196
Otis, Norton P., and W. H. Underwood, Yonkers, N. Y. Method of and apparatus for de- termining the direction of sounds	448,252	Mar. 17	1599	407 408 409	54	1440
Otis, William F., Norwalk, Ohio. Hydrocarbon-burner	460,653	Oct. 6	190	49	57	40
Ott, Frederick, Gloucester, N. J. Reed for looms	444,133	Jan. 6	256	62	54	52
Ott, George R. (See Selden and Ott.)						
Ott, Louis, Harrisburg, Pa. Hose-coupling	450,373	Apr. 14	1111	272	55	219
Otterson, Robert. (See Conch and Otterson.)						
Otto, August A., Lincoln, Nebr. Cue-chalker	464,288	Dec. 1	451	108	57	1221
Otto, Emil, Magdeburg, Germany. Spirit cooking apparatus	451,837	May 5	594	147	55	693
Otto, Heinrich, Reichenbach, Württemberg, Germany. Shuttle-check for looms	465,026	Dec. 15	1612	410	57	1462
Otto, Josiah J., Altoona, Pa. Power-machine	458,695	Sept. 1	231	55	56	1109
Otto, Noah E., Johnstown, Pa. Goods-exhibitor	453,912	June 9	1119	293	55	1369
Otto, Theodor, Schkenditz, assignor to the firm of J. Pohlig, Cologne, Germany. Truck for vehicles for ropeways	444,109	Jan. 6	208	50	54	43
Otto, Theodor, Schkenditz, assignor to the firm of J. Pohlig, Cologne-on-the Rhine, Ger- many. Gripper for buckets of ropeways	452,550	May 19	1795	451 452	55	928
Oudeshys, Louis, Baltimore, Md. Nail	465,285	Dec. 15	2037	520	57	1541
Oudin, Paul, and H. O. Kratz-Boussac, Paris, France. Electro-medical lighting apparat- us	455,972	July 14	1080	283	56	214
Onlton, James W., Lynn, and D. A. Meister, Boston, Mass. Collapsible baby-carriage	445,599	Feb. 3	125	32	54	535
Outerbridge, Albert A., Philadelphia, Pa. Puzzle-ball	446,535	Feb. 17	1698	416	54	862
Outhet, John, Toronto, Canada. Refrigerator	456,840	July 28	2479	651	56	495
Outterson, James A. (See Peck and Outterson.)						
Overall, George W., Memphis, Tenn. Electrode for chairs	459,127	Sept. 8	919	121	56	1251
Overholt, Edward H. (See Hohenshell and Overholt.)						
Overman, Albert H., Springfield, Mass. Boutonnière-holder	457,973	Aug. 18	1727	453	56	875
Overman, Albert H., Springfield, assignor to Overman Wheel Company, Chicopee Falls, Mass. Hollow wheel-rim	446,189	Feb. 10	1121	274	54	734
Overman, Albert H., Springfield, Mass., assignor to Overman Wheel Company, Hartford, Conn. Vehicle-wheel	446,692	Feb. 17	1930	481	54	906
Overman, Albert H., Springfield, Mass., assignor to Overman Wheel Company, Hartford, Conn. Rubber tire for vehicle-wheels	450,816	Apr. 21	1822	442	55	370
Overman Wheel Company. (See Archer and Bowley, assignors.)	463,390	Nov. 17	1877	489	57	930
Overman Wheel Company. (See Boudreau, Leon, assignor.)						
Overman Wheel Company. (See Boyd, James M., assignor.)						
Overman Wheel Company. (See Hadley, Charles F., assignor.)						
Overman Wheel Company. (See Overman, Albert H., assignor.)						
Overman Wheel Company. (See Rhoades, Leonard W., assignor.)						
Overman Wheel Company. (See Starley, John K., assignor.)						
Overman Wheel Company. (See Woodward, Charles E. W., assignor.)						
Overmyer, James, <i>et al.</i> (See Shapel, Hooker, assignor.)						
Overton, Charles H. (See Blessing and Overton.)						
Overton, Daniel F. and W. E. Solomon's, Md. Treating fish-seines	453,819	June 9	1003		55	1346

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Overton, Willis E. (See Overton, Daniel F. and W. E.)						
Oveson, Carl A., Chicago, Ill. Detachable furniture-leg and frame therefor	449,804	Apr. 7	248	63	55	50
Oviatt Solomon E., assignor of one-half to G. Colwell and D. R. Cory, Lansing, Mich.						
Wagon-axle	463,668	Nov. 24	2317	608	57	1024
Oviatt, Solomon E., assignor of one-half to G. Colwell and D. R. Cory, Lansing, Mich.	463,669	Nov. 24	2318	608 609	57	1024
Running-gear for wagons						
Owen, Alva, Chicago, Ill. Electric appliance for trusses	444,599	Jan. 13	971	251	54	201
Owen, Edmund B., assignor of one-half to W. W. Thomas, Jersey City, N. J. Door-knob	448,454	Mar. 17	1945	490	54	1506
Owen, Herbert A., <i>et al.</i> (See Baker, James H., assignor.)						
Owen, James D., Silvara, Pa. Saw-mill dog	459,596	Sept. 15	1553	386 387	56	1382
Owen, James L., Cummings, S. C. Car-brake	454,224	June 16	1561	410 411	55	1462
Owen, Joseph R. N., Eureka, Nev. Pneumatic gun	458,329	Aug. 25	2295	561	56	990
Owen, Margaret E., Lamborne, England. Cooking range or stove	456,158	July 21	1351	358	56	276
Owen, Matthew H. and T. D., Brownsville, Tenn. Cotton-planter	452,313	May 12	1390	345	55	844
Owen, Oliver W. (See Colby, Albert H., assignor.) (Reissue.)						
Owen, Thomas D. (See Owen, Matthew H. and T. D.)						
Owen, Walter J., Cleveland, Ohio, assignor to N. L. and C. C. Howard, trustees. Brush-making machine	453,291	June 2	171	47	55	1180
Owen, Walter J., Cleveland, Ohio, assignor to N. L. and C. C. Howard, trustees. Brush	453,292	June 2	173	48	55	1180
Owens, Charles E. (See Chattanay and Owens.)						
Owens, Charles T. (See Halliburton and Owens.)						
Owens, J. W., <i>et al.</i> (See Rogers, George R., assignor.)						
Owens, James, Russellville, Ind. Fence	449,745	Apr. 7	157	39	55	32
Oxley, Eustace, Boston, Mass. Phonograph	458,916	Sept. 1	574	139	56	1175
Ozias, Orange O. (See Sanderson and Ozias.)						
Ozias, Orange O., and E. Canby, Dayton, Ohio. Weighing and price scale	448,837	Mar. 24	2553	641	54	1629
Ozone Manufacturing Company. (See Knöfser, Oskar, assignor.)						
P. & F. Corbin. (See Glover, Charles, assignor.)						
P. P. Mast & Company. (See Kissell, Martin L., assignor.)						
Pabst, Charles, Philadelphia, Pa. Lamp-burner	462,991	Nov. 10	1226	319	57	797
Pabst, George F., assignor of one-half to J. Muller, Philadelphia, Pa. Solder	448,161	Mar. 10	1439		54	1401
Pacholder, Morris, Baltimore, Md. Station-indicator	461,507	Oct. 20	1569	385 386	57	316
Pacific Coast Gold-Saving Company. (See Woods, William A., assignor.)						
Pacific Gas Engine Company. (See Barrett and Daly, assignors.)						
Pacific Gas Engine Company. (See Thompson, Edgar, assignor.)						
Packard, Cullen C., Kalamazoo, Mich., assignor to E. & H. T. Anthony & Company, New York, N. Y. Photographic shutter	451,880	May 5	656	166	55	703
Packard, James W., <i>et al.</i> (See Herrold, John, assignor.)						
Packard, James W., Brockton, Mass. Shoe	454,376	June 16	1795	468	55	1505
Packard, Ralph G., Morristown, N. J. Dry-dock	460,310	Sept. 29	2779	693	56	1630
Packer, George W., Rock Falls, Ill., assignor to Empire Manufacturing Company, Keokuk, Iowa. Nail-machine	448,585	Mar. 17	2135	535 536	54	1543
Packer, John F., assignor to D. Bradley Manufacturing Company, Chicago, Ill. Disk barrow	449,132	Mar. 31	3014	762	54	1727
Packer, Willard N. (See Bradley and Packer.)						
Packer, Willard N., Cleveland, Ohio. Drill	457,009	Aug. 4	120	29	56	556
Packer, Willard N., and W. W. Bradley, Canton, Ohio. Clock-winding mechanism	445,073	Jan. 20	1762	454	54	360
Packham, Frank R., assignor to Superior Drill Company, Springfield, Ohio. Cultivator	446,563	Feb. 17	1738	428	54	870
Padberg, Bernard. (See Rollmann, Michael A., assignor.)						
Paddock, James R., Cincinnati, Ohio. Manufacture of sheet-metal vessels	461,041	Oct. 13	770	197	57	156
Paddock, James R., Cincinnati, Ohio. Die for making sheet-metal articles	461,042	Oct. 13	772	198	57	156
Paddock, Howard, Albany, N. Y. Ice-water receptacle	444,013	Jan. 6	47	13	54	12
Paff, Lawrence, Beaver Falls, Pa. Display-rack for carpets, oil-cloths, &c.	449,230	Mar. 31	3159	796	54	1754
Page, Albert A. (See Sargent and Page.)						
Page, Albert A., assignor to Sargent & Company, New Haven, Conn. Latch	455,949	July 14	1048	275	56	208
Page, Albert A., assignor to Sargent & Company, New Haven, Conn. Door-check	456,707	July 28	2249	596	56	455
Page, Albert A., assignor to Sargent & Company, New Haven, Conn. Metal knob	465,286	Dec. 15	2038	520	57	1541
Page, Alfred, and S. S. Bloom, Philadelphia, Pa. Artificial tooth	445,230	Jan. 27	2015	519	54	418
Page, Alfred, and S. S. Bloom, Philadelphia, Pa. Artificial tooth	445,231	Jan. 27	2016	519	54	418
Page, Augustus U., and D. A. Stewart, Cleveland, Ohio; said Stewart assignor to said Page. Oil-burner	452,314	May 12	1391	346	55	845
Page, Caleb D., Tacoma, Wash. Dumping-car	463,869	Nov. 24	2634	086	57	1083
Page, Caleb D., Tacoma, Wash. Dumping-trap	465,878	Dec. 29	2993	764	57	1744
Page, David F., Algernon, Ga. Animal-trap	464,889	Dec. 8	1353	340	57	1403
Page, Dustan A. (See Bird and Page.)						
Page, Edward A. (See La Burt, John, assignor.)						
Page, Erford L. (See Ireland, A. Bertsell, assignor.)						
Page, Frank H. (See Paris, Alfred W., assignor.)						
Page, Frank J., and H. A. Anderson, Waterbury, Conn. Soldering aluminum	452,800	May 26	2190		55	1014
Page, Levi H., assignor to Garden City Filter Company, Chicago, Ill. Egg-carrier	445,074	Jan. 20	1765	455	54	360
Page, Lewis T., Vaughan, Canada. Gate	465,725	Dec. 22	2739	698	57	1686
Page, Watson. (See Currier, Alfred M., assignor.)						
Page, William B., and B. Hainsheer, Dixon, Ill. Milk-beater	454,948	June 30	2751	701	55	1699
Paget, Leonard, New York, N. Y. Electrode for secondary batteries	457,555	Aug. 11	1038	267	56	735
Paget, Leonard, assignor to C. J. Kintner, New York, N. Y. Commutator or contact brush	457,327	Aug. 4	646	169	56	653
Paglinghi, John and J. A., New York, N. Y., and F. De Canio, Union Hill, N. J. Drying-line support	454,377	June 16	1796	468 469	55	1506
Paglinghi, Joseph A. (See Paglinghi and De Canio.)						
Paige, Arthur E., Philadelphia, Pa. Puzzle	466,121	Dec. 29	3400	871	57	1823
Paige, David O., Detroit, Mich. Enameling oven or kiln	457,821	Aug. 18	1460	380 381	56	825
Paige, David O., Detroit, Mich. Turn-table for elevated carriers	457,822	Aug. 18	1462	381	56	825
Paige, Frederick O., Detroit, Mich. Paper bag	448,142	Mar. 10	1406	360	54	1395
Paige, Frederick O., Detroit, Mich. Combined paper-weight and envelope-cutter	460,756	Oct. 6	355	87	57	70
Paige, Timothy, <i>et al.</i> (See Ludwig, John C., assignor.)						
Paige Tube Company. (See Bray, Thomas J., assignor.)						
Paillard & Co., M. J. (See Hussey, Charles A., assignor.)						
Paillard & Co., M. J. (See Suenr, Alfred, assignor.)						
Pain, Robert W., assignor to Aeolian Organ and Music Company, New York, N. Y. Musical instrument	445,075	Jan. 20	1766	455	54	361

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Paine, Ansel W., Boston, Mass., assignor to Sargent & Company, New Haven, Conn. Door-check	463,813	Nov. 24	2532	660	57	1064
Paine, Cassius M., Milwaukee, Wis., and J. L. Sebring, Kalamazoo, Mich. Apparatus for playing duplicate whist	462,448	Nov. 3	362	90	57	619
Paine, Dutee S., Cedar Falls, Iowa. Shield for carriage-wheels	460,053	Sept. 22	2378	594	56	1545
Paine, George C., assignor of one-half to J. S. Healy, Boston, Mass. Shaft-tug	446,390	Feb. 10	1454	357	54	801
Paine, Harry G., assignor of one-half to J. Welch, Utica, N. Y. Nut-lock	460,988	Oct. 13	697	180	57	143
Paine, John W. (See Manko and Paine.)						
Paine, Luther E., assignor to Edinburg Foundry and Machine Company, Edinburg, Ind. Weather-board-sawing attachment for circular saws	448,162	Mar. 10	1439	368	54	1401
Paine, Luther E., assignor to Edinburg Foundry and Machine Company, Edinburg, Ind. Self-feed rip-sawing machine	448,163	Mar. 10	1440	368	54	1401
Paine, Luther E., assignor to Edinburg Foundry and Machine Company, Edinburg, Ind. Combined sandpapering and friezing machine	450,337	Apr. 14	1051	258	55	208
Paine, William, Sr., Brainerd, Minn. Brace and support for joists of buildings or other structures	457,664	Aug. 11	1200	308	56	765
Paine, William H., New York, N. Y. Pneumatic tunneling apparatus	445,194	Jan. 27	1962	507	54	407
Painter, Carl T. (See Reed and Painter.)						
Painter, Gwynne E., assignor of one-half to J. F. Morrison, Baltimore, Md. Electric switch	465,618	Dec. 22	2588	658	57	1655
Painter, Joseph A., Elkton, Va. Car-coupling	453,891	June 9	1090	235	55	1363
Painter, Peter A., Titusville, Pa. Door-check	464,079	Dec. 1	112	29	57	1158
Painter, Robert F., Greenfield, Mass., assignor to Warner Manufacturing Company, of Massachusetts. Parasol	451,570	May 5	188	46	55	615
Painter, Robert F., assignor to Warner Manufacturing Company, Greenfield, Mass. Canopy-rod clamp	463,165	Nov. 17	1513	393	57	861
Painter, Samuel E., Cranberry, Pa. Can-opener	446,833	Feb. 24	2245	558	54	978
Painter, Thomas M., assignor of one-half to R. E. Oglebay, Cleveland, Ohio. Domestic vapor-burner	459,789	Sept. 22	1973	497	56	1468
Painter, Thomas M., assignor of one-half to R. E. Oglebay, Cleveland, Ohio. Crucible burner	459,790	Sept. 22	1974	497	56	1469
Painter, Thomas M., assignor of one-half to R. E. Oglebay, Cleveland, Ohio. Vapor-burner for steam-boilers	459,791	Sept. 22	1975	497	56	1469
Painter, William, assignor to Bottle Seal Company, Baltimore, Md. Bottle-stopper	449,892	Apr. 7	275	71	55	55
Paicau, Joseph, Chicago, Ill. Building-tile	449,133	Mar. 31	3015	763	54	1727
Palica, Frank J., Racine, Wis. Trunk	444,941	Jan. 20	1564	401	54	321
Palica, Frank J., Racine, Wis. Trunk	451,513	May 5	103	26	55	599
Pallen, Edward R., Philadelphia, Pa. Milling-cutter	447,906	Mar. 10	1034	260	54	1321
Pallweber, Josef, Furtwangen, Baden, assignor to S. Stern, Frankfurt-on-the-Main, Germany. Watch-case spring	447,473	Mar. 3	349	87	54	11-3
Palm, Alexander A., Calico, Cal. Screen	444,252	Jan. 6	436	110	54	85
Palm, Gottlieb F. (See Beach and Palm.)						
Palmer, Charles H., Jr., Amesbury, Mass. Carriage-axle	457,367	Aug. 11	745	190	56	678
Palmer, Charles H., Worcester, Mass. Night-lunch wagon	453,738	Sept. 1	287	70, 71	56	1120
Palmer, Christopher C., Bantam, Conn. Safety device for use in milking cows	453,498	June 2	508	{ 130 131 }	55	1244
Palmer, Dolphas D., Waltham, assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Apparatus for drilling diamonds and excessively hard substances	463,973	Nov. 24	2796	725	57	1114
Palmer, Don A., Chicago, Ill. Circuit-closer for burglar-alarms	455,005	June 30	2867	{ 728 729 }	55	1722
Palmer, Edwin C., and S. G. Ryder, assignors to Standard Tool Company, Cleveland, Ohio. Revolving emery-wheel dresser	448,787	Mar. 24	2483	621	54	1616
Palmer, Eugene F. (See Palmer, Norman W., assignor.)						
Palmer, Frank H., Brooklyn, N. Y. Jar cover and clamp	462,154	Oct. 27	2601	647	57	520
Palmer, Frank H., Brooklyn, N. Y. Sheet-metal can	464,385	Dec. 1	588	145	57	1246
Palmer, Frank L., New London, Conn. Quilting-machine	448,253	Mar. 17	1604	{ 409 410 }	54	1441
Palmer, Fred D., et al. (See Dunn, Adam, assignor.)						
Palmer, Henry A., Atlantic, Iowa. Lock	452,385	May 19	1524	378	55	879
Palmer, Henry H., et al. (See Palmer, Samuel D., assignor.)						
Palmer, Irenas J., assignor of one-half to L. A. Wright and G. A. Ross, Olean, N. Y. Com-passes for laying out stair-curves	461,367	Oct. 13	1286	326	57	257
Palmer, James A., Philadelphia, Pa. Casing for hot-air flues or pipes	457,455	Aug. 11	879	227	56	704
Palmer, James A., Philadelphia, Pa. Damper	463,406	Nov. 17	1900	496	57	935
Palmer, James S., London, England, assignor to F. Beck, New York, N. Y. Composition of plastic material	447,412	Mar. 3	231	91	54	1161
Palmer, John H., Boston, Mass. Secondary battery	462,449	Nov. 3	365	90, 91	57	620
Palmer, John H., Philadelphia, Pa., assignor to Acme Button Hole Attachment Company, Limited, New York, N. Y. Button-hole attachment for sewing-machines	444,846	Jan. 20	1362	353	54	283
Palmer, John H., Boston, Mass., assignor of one-half to R. Smith, Sherbrooke, Canada. Support for trolley-wires	458,427	Aug. 25	2455	597	56	1019
Palmer, John S., Providence, R. I. Manufacture of plated stock for jewelry	456,314	July 21	1598	423	56	322
Palmer, Maro V., Willimantic, assignor to Willimantic Linen Company, Hartford, Conn. Thread-unwinder for sewing-machines	446,463	Feb. 17	1587	390	54	840
Palmer, Melvin W. (See Palmer, Timothy G., assignor.)						
Palmer, Noah, New York, N. Y. Packing rock-candy for shipment	454,619	June 23	2194	566	55	1587
Palmer, Norman W., New York, N. Y., assignor of one-half to E. P. Palmer, Chicago, Ill. Street letter-box	458,064	Aug. 18	1858	481	56	900
Palmer, Noyes F., Brooklyn, N. Y. Fountain-pen	445,600	Feb. 3	126	32	54	536
Palmer, Randall A., assignor to Valley Machine Company, Saginaw, Mich. Grate construction	459,948	Sept. 22	2226	559	56	1517
Palmer, Samuel D., assignor of two-thirds to H. H. Palmer and G. E. King, Rockford, Ill. Churn-closure	446,391	Feb. 10	1455	357	54	802
Palmer, States D., Marshalltown, Iowa. Road-cart	456,056	July 14	1201	316	56	236
Palmer, Stephen, Lansingburg, N. Y. Sash-cord guide	461,270	Oct. 13	1122	287	57	224
Palmer, Thomas W. (See Hawks and Peoples, assignors.)						
Palmer, Timothy G., deceased, Schultsville; J. Greene, executor, and assignor to M. W. Palmer, Catskill, N. Y. Ice-cream freezer	452,315	May 12	1393	346	55	845
Palmer, William, Jr., Rincon, New Mexico. Windmill	445,573	Feb. 3	83	19, 20	54	527
Palmer, William F. (See Parker, George S., assignor.)						
Palmeri, Henry, assignor of one-half to C. J. Stromberg, Chicago, Ill. Steeping, boiling, or extracting vessel	454,879	June 30	2603	{ 668 669 }	55	1671
Palmros, Alexander, Lynn, assignor of one-half to V. E. Peterson, Boston, Mass. Trolley device	450,184	Apr. 14	787	199	55	160

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Pancoast, Richard M., Camden, N. J. Exhaust-cowl	445,819	Feb. 3	514	{ 123 124 }	54	612
Pancost, Oren B., Valmont, Colo. Hay-press	461,768	Oct. 20	1992	492	57	395
Pangborn, Henry and J. K., Menominee, Mich. Sleigh-runner	462,731	Nov. 10	809	211	57	716
Pangborn, James K. (See Pangborn, Henry and J. K.)						
Panhorst, Wilhelm. (See Grossenbach and Panhorst.)						
Pankey, Mastin C., Scranton, Miss. Making brushes	451,294	Apr. 28	2581	637	55	526
Panknin, Charles F. (See Von Oven and Panknin.)						
Pannebaker, William A., East Waterford, Pa. Saw-mill dog	446,979	Feb. 24	2407	599	54	1007
Pantasote Leather Company. (See Bradley, Parker R., assignor.)						
Paoli, John, Hoboken, N. J. Telescope	461,389	Oct. 13	1326	335	57	264
Paoli, John, Hoboken, N. J. Leveling-instrument for builders	461,390	Oct. 13	1327	335	57	265
Paoli, John, Hoboken, N. J., assignor to W. Keuffel and H. Esser, New York, N. Y. Engineer's transit	453,158	May 26	2775	698	55	1127
Paoli, John, Hoboken, N. J., assignor to W. Keuffel and H. Esser, New York, N. Y. Engineer's instrument	453,159	May 26	2778	699	55	1127
Paoli, John, Hoboken, N. J., assignor to W. Keuffel and H. Esser, New York, N. Y. Engineer's instrument	453,160	May 26	2779	699	55	1127
Papendick, Richard E., Offenbach-on-the-Main, Germany. Fitting pulleys to shafts	454,916	June 30	2688	688	55	1688
Papin, Peter M., assignor of one-half to T. M. Knapp, St. Louis, Mo. Fishing-line float	458,129	Aug. 18	1955	507	56	919
Papke, August C., Beach Ridge, N. Y. Washing-machine	464,583	Dec. 8	882	217	57	1313
Pappa, James. (See Finn and Pappa.)						
Paquetin, Claude A., Paris, France. Thermo-cauter	454,524	June 23	2022	524	55	1557
Paquet, Dindonni, assignor of one-half to L. Keser, Jr., Oakland, Cal. Combined horse-collar and harness	460,757	Oct. 6	356	87	57	70
Paquette, Theophile, and F. R. Child, Webster, Mass. Hub-boring machine	449,494	Mar. 31	3626	{ 912 913 }	54	1840
Paquette, William, Lewiston, Me. Cosmetic	453,847	June 9	1032		55	1352
Parcelle, Albert L., Boston, Mass. Electric motor and dynamo	463,704	Nov. 24	2381	623	57	1035
Parcelle, Albert L., Boston, Mass., assignor to Simplex Motor Company, of Maine. Dynamo-electric machine or motor	450,975	Apr. 21	2071	511	55	417
Pardee, Luther, Cuyahoga Falls, Ohio. Heating-boiler	460,158	Sept. 29	2545	634	56	1585
Paris, Alfred W. (See Wommer, Louis, assignor.)						
Paris, Alfred W., assignor of one-half to F. H. Page, Minneapolis, Minn. Confectioner's machine	456,336	July 21	1634	{ 432 433 }	56	329
Parish, James H. (See Altman, Emil, assignor.)						
Park, B. R. (See Hayward, Josiah E., assignor.)						
Park, Gilbert, Northborough, and J. H. McNab, Clinton, Mass. Loom-temple	455,112	June 30	3053	776	55	1758
Park, Gilbert, Wales, and J. E. Goddard, assignors of one-half to J. G. Avery, Spencer, Mass. Weft stop-motion for looms	463,372	Nov. 17	1840	481	57	924
Park, Harvey S., Chicago, Ill. Solenoid and spool-magnet	451,308	Apr. 28	2601	{ 641 642 }	55	529
Park, Harvey S., Chicago, Ill. Dispensing apparatus for soda and other aerated fluids	454,493	June 23	1973	514	55	1549
Park, Harvey S., Chicago, Ill. Electrical watchman's clock	455,352	July 7	80	24	56	20
Park, Harvey S., and J. B. Herron, Chicago, Ill. Sirup-fountain cock	456,159	July 21	1352	359	56	276
Park, Joseph, Jr., assignor of two-thirds to E. Johnson and W. L. Earle, Tully, N. Y. Packing device	444,784	Jan. 13	1259	326	54	254
Park, Lindon, Brady, assignor of one-half to D. H. Bean, Hannah, Pa. Window-shade	451,068	Apr. 28	2305	545	55	452
Park, Thomas R., and R. A. Pickens, Parkersburg, W. Va. Truss	454,761	June 23	2400	616	55	1628
Park, William R., Taunton, Mass. Injector	448,488	Mar. 17	1999	500	54	1516
Parker, Albert H. (See Merritt, Joseph E., assignor.)						
Parker, Alfred J., and G. M. Guerrant, New York, N. Y. Spectacles	453,327	June 2	229	60	55	1191
Parker, Almira A., et al. (See Trenholm, Charles W., assignor.)						
Parker, Charles G., Brooklyn, assignor of one-third to L. P. Goodwin, New York, N. Y. Machine for filing and setting saws	456,276	July 21	1534	{ 407 408 }	56	310
Parker, Emer H., Evanston, Ill. Electric temperature-controller	454,985	June 30	2819	718	55	1713
Parker, Erastus N., Springfield, Mass. Jeweler's clamp	450,474	Apr. 14	1257	307	55	246
Parker, Francis W., trustee. (See Crowe, Frederick C., assignor.)						
Parker, Frank E., et al. (See Poole, Edward, assignor.)						
Parker, George, Bay City, Mich. Fire-shield	461,983	Oct. 27	2345	581	57	471
Parker, George, Preston, England, assignor of one-third to J. H. Lancaster, New York, N. Y. Dobby for looms	448,668	Mar. 24	2291	{ 574 575 }	54	1579
Parker, George S., Janesville, assignor of one-half to W. F. Palmer, Neenah, Wis. Fountain-pen	455,023	June 30	2891	735	55	1727
Parker, George W., Terre Haute, Ind. Separator for coal or other substances	455,601	July 7	498	129	56	96
Parker, Henry, assignor of one-half to G. Gillies, Gananoque, Canada. Machine for shaping or forming cores for the bow-sockets of carriage-tops	453,384	June 2	313	82	55	1206
Parker, Henry F., assignor of one-half to F. G. Corning, New York, N. Y. Sand-box for cars	454,182	June 16	1502	394	55	1450
Parker, Howard, and G. F. Cushman, assignors to Vacuum Wet Machine Company, St. Johnsbury, Vt. Machine for forming sheets from pulp	462,505	Nov. 3	444	109	57	635
Parker, James, assignor of five-eighths to H. L. Carlisle, F. H. White, and W. S. Rhoads, Phillipsburg, Pa. Mechanism for automatically operating end-gates of cars	456,904	July 28	2576	677	56	514
Parker, James, assignor of five-eighths to W. S. Rhoads, F. K. White, and H. L. Carlisle, Phillipsburg, Pa. Cap for lubricating-boxes of car-journals	460,923	Oct. 6	601	152	57	117
Parker, James C., Woodston, Kans. Shifting rail for carriages	452,500	May 19	1717	432	55	913
Parker, James O., trustee. (See Petersen, Henry, assignor.)						
Parker, James W., Viola, Ill. Check-row corn-planter	461,707	Oct. 20	1899	469	57	377
Parker, John, Clinton, Conn. Umbrella-rack	463,287	Dec. 15	2039	520	57	1541
Parker, John M., Pawtucket, R. I. Machine for turning spools	454,684	June 23	2289	587	55	1605
Parker, John M., Pawtucket, R. I. Spool-finishing machine	463,688	Nov. 24	2351	{ 616 617 }	57	1030
Parker, John N., Coldwater, Mich. Wire-tightener	447,436	Mar. 3	270	68	54	1169
Parker, Jonas, et al. (See Stewart, William J., assignor.)						
Parker, Jonas, assignor to himself, J. Kunkel, I. C. Smith, and W. J. Stewart, Williamsport, Pa. Buckle	460,721	Oct. 6	306	75	57	60
Parker, Josiah A., St. Louis, Mo. Telegraph apparatus	447,198	Feb. 24	2996	691	54	1080
Parker, Melvin O., Rochester, N. Y. Apparatus for propelling and steering vessels	450,677	Apr. 21	1605	386	55	330
Parker, Orrin W., Oakland, Cal. Double-acting lift-pump	455,515	July 7	340	87	56	67
Parker, Russel, et al. (See Mitchell, Edward W., assignor.)						
Parker, Samuel A. (See Thompson and Parker.)						
Parker, Sidney, assignor of two-thirds to W. O. Osgood, Chicago, Ill. Blast-furnace	446,168	Feb. 10	1092	268	54	729
Parker, Thomas, and A. E. Robinson, Wolverhampton, England. Making iodine by electrolysis	448,541	Mar. 17	2068		54	1531

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Parker & Whipple Company. (See Olmsted, Julius A., assignor.)						
Parker, William H., Geneva, Nebr. Washing-machine	449,694	Apr. 7	73	18	55	16
Parker, William S., Pontiac, assignor of one-half to M. B. Mills, Detroit, Mich. Car-refrigerating apparatus	450,976	Apr. 21	2073	512	55	417
Parkhurst, Charles O., Topeka, Ill. Corn-planter	454,601	June 23	2163	558	55	1582
Parkhurst, Edward B., Woburn, Mass., assignor to National Cash Register Company	444,368	Jan. 6	599	154 155 232 233	54	119
ton, Ohio. Cash register and indicator						
Parkhurst, Edward B., Woburn, Mass., assignor to National Cash Register Company, Dayton, Ohio. Cash register and indicator	453,746	June 9	891	193 194 285 286	55	1325
Parkhurst, Edward G., Hartford, Conn. Breech-loading ordnance	464,518	Dec. 8	791		57	1295
Parkhurst, John H., Washington, D. C. Envelope	453,892	June 9	1091		55	1363
Parkhurst, Lyman, <i>et al.</i> (See Bliss, Henry S., assignor.)						
Parkhurst, Wilfred H. (See Milliard, Anda, assignor.)						
Parkin, James, Lynn, assignor of one-half to J. L. Patchett, Stoneham, Mass. Mechanism for actuating the dabbing-brushes of combing-machines	460,654	Oct. 6	192	49	57	40
Parkin, Joseph W., Philadelphia, Pa. Support for spinning-spindles	446,207	Feb. 10	1149	281	54	739
Parkinson, George M. (See Parkinson, Tom and G. M.)						
Parkinson, Henry, Mailor's Flat, near Warrnambool, assignor of one-half to W. H. Bateman, Warrnambool, Victoria. Thill-coupling	464,164	Dec. 1	237	58	57	1180
Parkinson, Thomas J., assignor of one-half to J. R. Baum, Pittsburg, Pa. Bed	447,257	Feb. 24	2895	719	54	1100
Parkinson, Thomas J., assignor of one-half to J. R. Baum, Pittsburg, Pa. Time register or indicator	452,728	May 19	2074	522	55	983
Parkinson, Thomas J., assignor of one-half to J. R. Baum, Pittsburg, Pa. Protractor	453,385	June 2	315	82	55	1206
Parkinson, Tom and G. M., Doncaster, England. Bolting-screen	449,913	Apr. 7	405	101 102	55	79
Parks, Alexander, Martinsburg, W. Va. Utilizing the waste of distilleries, &c.	452,949	May 26	2439		55	1062
Parks, Charles E., Watertown, Wis. Dovetailing-machine	463,814	Nov. 24	2532	660 661 662	57	1065
Parke, Charles E., Watertown, Wis. Loom for weaving slat and wire fabrics	463,815	Nov. 24	2534		57	1065
Parks, George W. (See Howard, Parks, and Whiting.)						
Parks, James H., Clarendon, Tex. Clinometer or slope-measurer	444,196	Jan. 6	356	88	54	72
Parks, James H., Clarendon, Tex. Tire-heater	459,112	Sept. 8	896	215	56	1247
Parks, Volney, Fort Wayne, Ind. Two-wheeled vehicle	455,764	July 14	759	200	56	155
Parks, Volney, Fort Wayne, Ind. Car-coupling	465,027	Dec. 15	1613	411	57	1462
Parlin, Andrew J. (See Spielman, George D., assignor.)						
Parmelee, Arthur W., and W. O. Bement, assignors to Wire Goods Company, Worcester, Mass. Hook	453,747	June 9	895	233	55	1325
Parmelee, Wilbur F., Middletown, Conn. Support for hammocks, chairs, swings, &c.	466,010	Dec. 29	3228	822 823	57	1788
Parmelee, Wolcott J., Wilkes-Barré, Pa. Machine for rolling axles	444,253	Jan. 6	437	110	54	86
Parmelee, Wolcott J., Wilkes-Barré, Pa. Process of and apparatus for making axles	454,685	June 23	2291	587	55	1606
Parmelee, Wolcott J., Wilkes-Barré, Pa. Car-wheel	456,635	July 28	2132	564	56	432
Parmelee, Wolcott J., Wilkes-Barré, Pa. Process of and apparatus for making fan-tail axles	459,765	Sept. 22	1937	488 489 346 347	56	1462
Parmerlee, James C., Sedalia, Mo. Engraving-machine	454,063	June 16	1326		55	1417
Parmerley, George C., and A. G. C. Stetson, Philadelphia, Pa. Carpet-fastener	448,068	Mar. 10	1303	333	54	1371
Parnley, Mahala J., Footeville, Wis. Dish-washer	449,746	Apr. 7	158	39	55	32
Parno, Augusta C., <i>et al.</i> (See Parno, Emil W., assignor.)						
Parno, Emil W., assignor to A. C. Parno and R. G. Tyler, Greene, Iowa. Watch-pocket	466,292	Dec. 29	3671	938	57	1874
Paronto, John M., Hoyt, Kans. Hay-rake	448,926	Mar. 24	2690	678	54	1656
Parpert, Mary, St. Louis, Mo. Candlestick for Christmas-trees	464,228	Dec. 1	350	84	57	1200
Parr, Alexander E., Harker's Corners, and W. C. Edwards, Peoria, Ill. Step-ladder	455,973	July 14	1081	283	56	214
Parr, William A., Crawford County, Ind. Trace-carrier	453,309	June 2	199	54	55	1185
Parramore, Reddin W., assignor of one-half to J. A. Githens, Asbury Park, N. J. Corset attachment	465,434	Dec. 15	2274	584	57	1587
Parris, Thomas, Rising Star, Tex. Cotton bedder and planter	452,908	May 26	2360	597	55	1046
Parrish Electric Track Signal Company. (See Parrish, Homer A., assignor.)						
Parrish, Ernest L. (See Welch, David, assignor.)						
Parrish, Hamilton, New York, N. Y. Automatic grain-weighing machine	463,407	Nov. 17	1900	496 497	57	935
Parrish, Homer A., Jackson, assignor to Parrish Electric Track Signal Company, Detroit, Mich. Electric track-signal	464,655	Dec. 8	997	249	57	1335
Parrish, Myron W., Detroit, Mich. Electric track-signal	457,058	Aug. 4	191	47	56	570
Parrish, Robert J., assignor of one-half to D. L. Smith, Columbus, Ohio. Flood-gate	459,709	Sept. 15	1850	465	56	1439
Parrish, Thomas K., Richmond, Va. Hooping wooden vessels	448,990	Mar. 24	2781	704	54	1674
Parrish, William N., Richmond, Ind. Self-binder	457,665	Aug. 11	1201	308 309	56	765
Parrott, Eben S. (See Emans, Theodore F., assignor.)						
Parrott, Joel L., Hess, Oklahoma Ter. Seeder and cultivator	460,399	Sep. 29	2913	728	56	1655
Parry, Augustus N., and H. E. Morrill, Amesbury, Mass. Shifting seat	462,101	Oct. 27	2519	625	57	505
Parry, David M., Indianapolis, Ind. Four-wheeled vehicle	458,989	Sept. 1	686	167	56	1200
Parry, David M., and T. H., Indianapolis, Ind. Vehicle-spring	447,005	Feb. 24	2443	607	54	1014
Parry, George T., Philadelphia, Pa. Signal-light	448,069	Mar. 10	1304	333	54	1373
Parry, Thomas H. (See Parry, David M. and T. H.)						
Parry, Thomas H., and D. S. Reel, Indianapolis, Ind. Vehicle shaft-iron	458,978	Sept. 1	672	164	56	1196
Parry, William A., North Cambridge, Mass. Pug-mill	445,703	Feb. 3	310	82	51	573
Parry, William H., assignor to J. H. Havens, New York, N. Y. Saw filing and setting machine	445,858	Feb. 3	571	139 140	54	623
Parshall, Horace F. (See Bennett and Parshall.)						
Parshall, Horace F., assignor to Westrom Consolidated Dynamo and Motor Company of Baltimore City, Baltimore, Md. Commutator and brush	446,536	Feb. 17	1700	417	54	862
Parson, Henry E. (See Young and Parson.)						
Parsons, Ambrose E., assignor of one-half to C. R. F. Edwards, New Berne, N. C. Connection for steam-engines	454,814	June 23	2497	642	55	1614
Parsons, Byron J., assignor to F. W. Fitch, Omaha, Nebr. Automatic trolley-catcher for electric railways	449,569	Mar. 31	3731	937	54	1859
Parsons, Charles O., Milwaukee, Wis. Door track and hanger	456,841	July 28	2480	651 652	56	496
Parsons, Charles O., Milwaukee, Wis. Revolving adjustable piano-stool	464,319	Dec. 1	496	119	57	1228

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Parsons, Edward, <i>et al.</i> (See Bower, Giles W., assignor.)						
Parsons, Edward H., and E. U. Frazer, Kane, Pa. Screen for magic-lanterns and photographers' use	454,005	June 9	1247	324	55	1394
Parsons, Francis W., Philadelphia, Pa. Railway-chair	465,492	Dec. 22	2370	607	57	1615
Parsons, Joseph A., Rockport, Ohio. Knockdown box	461,391	Oct. 13	1329	335	57	265
Parsons, Levi L., <i>et al.</i> (See Mitchell, Willis, assignor.)						
Parsons, Paul J., Philadelphia, Pa. Safety device for grain-mills	465,196	Dec. 15	1893	480	57	1513
Parsons, T. J. (See Cook and Harvey, assignors.)						
Parsons, William C., Akron, Ohio. Automatic ink-well	452,481	May 19	1692	426	55	909
Partello, Joseph D. (See Wilcox and Partello.)						
Partington, Charles, and E. W. Harden, assignors to Weir Frog Company, Cincinnati, Ohio. Machine for making rail-braces	458,480	Aug. 25	2539	619 620	56	1035
Partridge, Benjamin F., Portsmouth, Mich. Carriage-cover	447,842	Mar. 10	937	235	54	1303
Partridge, Timothy L. (See Lawson, Walter H., assignor.)						
Partz, August F. W., Philadelphia, Pa. Washer	454,289	June 16	1659	435	55	1481
Pasadena Patent Improvement Company. (See Cochran, Edward A., assignor.)						
Paschal, William, Rutherford, Tenn. Folding poultry-crate	451,069	Apr. 28	2206	546	55	452
Paskel, Russel, Benton Harbor, Mich., assignor to H. Kays. Railway-switch	454,290	June 16	1660	436	55	1481
Pasmore, Charles J., Rockwood, Canada. Cash-recorder	459,935	Sept. 22	2210	555	56	1514
Pasquarelli, Oreste, Torino, Italy, assignor to C. A. Steinheil Söhne, Munich, Germany. Photographic apparatus	445,232	Jan. 27	2017	520	54	418
Passage, Hiram H., Plymouth, Mich. Spring air-gun	440,711	Feb. 17	1959	488	54	912
Passavant, Samuel C. (See Reichenbach and Passavant.)						
Passburg, Emil, Breslau, Germany. Vacuum drying apparatus	447,345	Mar. 3	106	29	54	1138
Passel, George W., and J. Sofge, assignors to J. A. Fay & Company, Cincinnati, Ohio. Mortising-machine	457,368	Aug. 11	745	191 192	56	678
Passelt, Ludwig. (See Schimansky and Passelt.)						
Passmore, Everett G., Haverford, Pa. Lawn-mower	455,974	July 14	1082	283 284	56	214
Passmore, James, and P. A. Arp, Philipsburg, Pa. Coal-miuing machine	465,197	Dec. 15	1894	480 481	57	1513
Passmore, Jason, <i>et al.</i> (See Shoemaker, Milton, assignor.)						
Pasteyer, Joseph. (See Lachaume and Pasteyer.)						
Patch, John L. (See Eaton and Patch.)						
Patchen, Hiram F., Syracuse, N. Y. Curtain-pole trimming	459,412	Sept. 15	1373	344	56	1349
Patchen, York, Westfield, N. Y. Telescopic gun-sight	465,088	Dec. 15	1713	436	57	1481
Patchett, John L. (See Parkin, James, assignor.)						
Patchin, Myron, Middlefield, Ohio. Spreader for grain-binders	461,271	Oct. 13	1123	287	57	224
Pate, W. J., <i>et al.</i> (See Crosby, George W., assignor.)						
Patenall, Thomas H., Rahway, N. J. Electric circuit closing and breaking device for rail-way-tracks	462,850	Nov. 10	1006	259	57	755
Patent and Industrial Development Syndicate. (See Paterson, James, assignor.)						
Patent Box and Printing Company. (See Bird, Alfred F., assignor.)						
Patent Button Company. (See Cook, George, assignor.)						
Patent Button Company. (See Platt, Clark M., assignor.)						
Patent Button Company. (See Porter, Thomas W., assignor.)						
Patent Button Company. (See Porter and Glover, assignors.)						
Patent Button Company. (See White, Franklin R., assignor.)						
Patent Cnff Adjuster Company. (See Heaps, Edward K., assignor.)						
Patent Waterproof Paper and Canvas Company. (See Williams, James, assignor.)						
Paternoster, Alexandre, Antwerp, Belgium. Cask or barrel	460,026	Sept. 22	2330	584	56	1537
Paterson Electrical Manufacturing Company. (See Goode, Lemuel G., assignor.)						
Paterson, James, assignor of one-half to Patent and Industrial Development Syndicate, Limited, London, England. Self-indicating target	449,270	Mar. 31	3223	813 814	54	1766
Paterson, James and W., Stockton, assignors to Benicia Agricultural Works, Benicia, Cal. Gang-plow	449,329	Mar. 31	3344	843	54	1786
Paterson, James, and W. Stockton, assignors to Benicia Agricultural Works, Benicia, Cal. Harvester	454,225	June 16	1563	411	55	1462
Paterson, William. (See Paterson, James and W.)						
Paterson, William A., Flint, Mich. Road-cart	456,369	July 21	1691	446	56	340
Patillo, John P. W., Greenville, Tex. Game-table	458,065	Aug. 18	1859	485	56	900
Patnode, Ella J., <i>et al.</i> (See Dye, William H., assignor.)						
Patric, Charles E. (See Cook and Patric.)						
Patric, Charles E., assignor to Superior Drill Company, Springfield, Ohio. Grain-drill	452,801	May 26	2191	549 550	55	1014
Patrick, Armena. (See Tousley, Miron G., assignor.)						
Patrick, George E., Ames, Iowa. Apparatus for extracting sugar from saccharine materials	449,747	Apr. 7	160	39, 40	55	32
Patrick, Marcus C., Minneapolis, Minn. Combination wood and metal working machine	465,493					

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Patten, John, assignor to Universal Lasting Machine Company, New York, N. Y. Lasting-machine.	452,316	May 12	1394	<div>346 347 348 349</div>	55	845
Patten Manufacturing Company, John. (See Patten, John, assignor.)						
Patterson, Charles R., assignor of one-half to F. Baldwin, Greenfield, Ohio. Furniture-caster	452,940	May 26	2425	612	55	1060
Patterson, Elisha G., Titusville, Pa. Railway-rail	458,748	Sept. 1	301	74	56	1123
Patterson, Frank J., Dayton, Ohio. Cash register and indicator	450,955	Apr. 21	2028	<div>500 501</div>	55	499
Patterson, Frank T., and A. Feldpauche, Philadelphia, Pa. Elevator and conveyer	465,198	Dec. 15	1896	481	57	1514
Patterson, Gilbert. (See Brousseau and Patterson.)						
Patterson, Henry W., and W. H. Ryan, assignors of one-third to W. P. Hatch, Chicago, Ill. Apparatus for polishing shears, &c.	464,584	Dec. 8	883	218	57	1313
Patterson, Hugh, and W. Z. Walker, Philadelphia, Pa. Ingrain carpet fabric	457,288	Aug. 4	569	151	56	639
Patterson, James, Copenhagen, Denmark, assignor to J. M. Jackson, Baltimore, Md. Blotting-pad	458,481	Aug. 25	2343	620	56	1035
Patterson, James B. (See Wharton, Richard, assignor.)						
Patterson, James B., Philadelphia, Pa. Hammock	451,186	Apr. 28	2407	595	55	490
Patterson, John E. (See Hansen, Johan, assignor.)						
Patterson, John H., assignor to National Cash Register Company, Dayton, Ohio. Cash register and indicator	452,982	May 26	2490	<div>630 631</div>	55	1072
Patterson, John M., et al. (See Werner, John C., assignor.)						
Patterson, John W., Madisonville, Ky. Running-gear for vehicles	460,381	Sept. 29	2889	722	56	1651
Patterson, Joseph N., Everton, Mo. Breast-strap slide	455,494	July 7	305	77	56	62
Patterson, Peter, assignor to National Tube Works Company, McKeesport, Pa. Apparatus for making tubing	444,568	Jan. 13	932	242	54	193
Patterson, Peter, assignor to National Tube Works Company, McKeesport, Pa. Apparatus for welding tubing	444,569	Jan. 13	934	242	54	193
Patterson, Robert L., assignor of one-half to H. A. Riemann, Wellington, Kans. Machine for dressing floors or the surface of lumber	447,160	Feb. 24	2735	677	54	1068
Patterson, Thomas C., Hico, Tex. Planter	454,183	June 16	1505	395	55	1450
Patterson, William D., Keokuk, Iowa. Hose-coupling	464,386	Dec. 1	589	145	57	1246
Patterson, William H., Cuyahoga Falls, Ohio. Apparatus for making paper bags	450,710	Apr. 21	1651	<div>397 398</div>	55	338
Patterson, William H., Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Paper-bag machine	446,839	Feb. 17	2158	<div>536 537</div>	54	954
Patterson, William J., assignor of one-half to J. Textor, Beaver Falls, Pa. Thill-coupling	459,710	Sept. 15	1851	465	56	1439
Patterson, William R., assignor to Western Electric Company, Chicago, Ill. Magnetobell	444,600	Jan. 13	971	252	54	201
Patterson, William R., assignor to Western Electric Company, Chicago, Ill. Spring-jack switch	464,519	Dec. 8	797	195	57	1296
Patterson, William W., Austin, Minn. Carpet-stretcher	451,571	May 5	189	46	55	616
Patteson, Samuel B., St. Joseph, La. Rotary steam-engine	453,065	May 26	2621	662	55	1097
Patteson, Samuel B., St. Joseph, La. Cotton-harvesting machinery	465,879	Dec. 29	2995	<div>764 765</div>	57	1744
Pattison, Richard, and D. G. Desmond, Boston, Mass. Electric head-light	454,184	June 16	1506	395	55	1451
Patton, Alexander G., Columbus, Ohio. Tea-kettle	463,166	Nov. 17	1514	393	57	861
Patton, Arthur L. (See Patton, John L. and A. L.)						
Patton, Frank S., Kansas City, Mo. Screw-cutting die-stock	456,660	July 28	2174	576	56	441
Patton, Frank S., Kansas City, Mo. Pipe-wrench	461,769	Oct. 20	1992	493	57	395
Patton, Fred W., Mount Vernon, Ill. Obstetrical apparatus	456,259	July 21	1516	402	56	307
Patton, Isaac S., assignor of one-half to F. Van Seggern, Kansas City, Mo. Spring-motor	460,655	Oct. 6	193	49, 50	57	40
Patton, John J. (See Blackburn, Charles W., assignor.)						
Patton, John L. and A. L., Panola, Ill. Wagon-brake	444,369	Jan. 6	606	156	54	120
Paul, A. C., et al. (See Munsing, George D., assignor.)						
Paul, Albert, et al. (See Brown, John W., assignor.)						
Paul, Almarin B., San Francisco, Cal. Apparatus for treating gold and silver ores	462,326	Nov. 3	171	43, 44	57	583
Paul, Archibald, Cohoes, N. Y. Thill-coupling	446,005	Feb. 10	812	196	54	679
Paul, Clarence B., Whittemore, Iowa. Apparatus for warming beds	464,585	Dec. 8	884	218	57	1314
Paul, David S., Philadelphia, Pa. Pattern	445,859	Feb. 3	574	140	54	624
Paul, David S., assignor of two-thirds to W. C. Matchett and J. Potts, Philadelphia, Pa. Nipple-holding chuck	466,255	Dec. 29	3606	923	57	1862
Paul, Harry B., Camden, N. J. Sully	444,921	Jan. 20	1529	393	54	314
Paul, Lawrence H., Wyoming, Iowa. Return-pulley	447,199	Feb. 24	2798	691	54	1080
Paul, Michel J., London, England. Hoisting apparatus	465,114	Dec. 15	1766	<div>446 447</div>	57	1490
Paul, Thomas H., Frostburg, Md. Gas stove and radiator	463,282	Nov. 17	1686	440	57	895
Paul, William H., Baltimore, Md. Drawers	457,130	Aug. 4	297	78	56	590
Paul, Archibald W., Wheeling, W. Va. Lamp-shade tripod	444,650	Jan. 13	1042	271	54	214
Pauly, Joseph. (See Michels and Pauly.)						
Pauly, Peter J., Jr., St. Louis, Mo. Jail or other grating	450,678	Apr. 21	1606	386	55	330
Pavlenkoff, Florentin. (See Nadein, Metrophanes, assignor.)						
Pavyer, Benjamin J., and T. Burns, St. Louis, Mo. Paper-cutting machine	465,435	Dec. 15	2275	584	57	1587
Pawlowski, Honoré K. de, Paris, France, assignor to W. Gardner, New York, N. Y. Apparatus for bleaching vegetable and animal matter	453,975	June 9	1199	313	55	1385
Paxson, Charles H. (See Coffield and Paxson.)						
Paxson, Richard, Philadelphia, Pa. Chain	447,620	Mar. 3	570	141	54	1925
Paxton, John B., and E. I. O'Neill, Philadelphia, Pa. Circular-knitting machine	455,052	June 30	2945	<div>749 750</div>	55	1737
Pay, Charles, Providence, R. I. Dumping-wagon	463,254	Nov. 17	1646	428	57	887
Payette, Peter, Penetanguishene, Canada. Edging-machine	451,162	Apr. 28	2353	<div>584 585</div>	55	482
Payne, Augustus F., Hamilton, N. Y. Wall-paper exhibitor	459,567	Sept. 15	1615	405	56	1394
Payne, Clarence Q., Stamford, Conn. Magnetic-ore separator	444,223	Jan. 6	396	99	54	79
Payne, Halbert E., Bridgeport, Conn., assignor to Davidson Writing Machine Company, New York, N. Y. Type-writing machine	456,337	July 21	1637	433	56	330
Payne, Halbert E., Bridgeport, Conn., assignor to Davidson Writing Machine Company, New York, N. Y. Type-writing machine	456,338	July 21	1639	434	56	330
Payne, Jehu, Federalsburg, Md. Shaft-tug	450,711	Apr. 21	1653	398	55	338
Payne, John J. E. H., Lipscomb, Tex. Safe	444,197	Jan. 6	357	88, 89	54	72
Payne, John J. E. H., Springfield, Ill. Safe or vault	455,489	July 7	298	76	56	60
Payne, John R., assignor of one-half to I. Light, Freedom, Ind. Corn-planter	454,378	June 16	1797	469	55	1506
Payne, Joseph, Dwight, Ill. Artificial tooth	461,844	Oct. 27	2122	523	57	428

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Payne, Joseph M., Cressona, Pa. Electric brake.....	451,514	May 5	105	26	55	599
Payne, Martin, Troy, N. Y. Sleigh.....	462,579	Nov. 3	568	138	57	660
Payne, Thomas O., Vicksburg, Miss. Artificial tooth.....	453,703	June 9	838	217	55	1314
Payne, W. C., et al. (See Malone, James, assignor.)						
Payton, Franklin C. (See Shaw, Edgar, assignor.)						
Payton, Josiah E., Red Oak, Ky. Box-fastener.....	458,857	Sept. 1	478	115	56	1157
Payton & Kelley. (See Kelley, Samuel E., assignor.)						
Peabody, James B. (See Jones, Franklin L., assignor.)						
Peabody, Lewis G., et al. (See Lovett, Eliphalet R., assignor.)						
Peabody, Lewis S., et al. (See Lovett, Eliphalet R., assignor.)						
Peabody, Roswell L., New York, N. Y. Pendant-set watch.....	447,474	Mar. 3	350	87	54	1183
Peabody Whitney Company. (See Sellers, William, assignor.)						
Peace, John G., Salem, Mo. Folding bed.....	464,387	Dec. 1	590	{ 145 146 }	57	1246
Peachey, James. (See West, John C., assignor.)						
Peachey, Joseph H., Allensville, Pa. Grain-register.....	446,788	Feb. 17	2070	516	54	935
Peacock, Edward F., Philadelphia, Pa. Rod-packing.....	446,364	Feb. 10	1412	347	54	792
Peacock, Jacob S., Lancaster, Pa. Padlock.....	453,136	May 26	2739	681	55	1120
Peacock, Jacob S., Lancaster, Pa. Padlock.....	456,427	July 21	1799	476	56	359
Peacock, Joseph V., Phelps, N. Y. Seeder.....	453,732	June 9	871	226	55	1320
Peacock, Ralph, and H. L. Lange, Manchester, England. Locomotive-engine.....	446,927	Mar. 24	2092	679	54	1657
Pearce, Atkins & Co. (See Mullen, Robert H., assignor.)						
Pearce, Frederick, New York, N. Y. Revolving show-stand.....	459,592	Sept. 15	1661	415	56	1403
Pearce, James, Pittsburg, Pa. Brake-beam.....	444,159	Jan. 6	297	71	54	60
Pearce, John W. (See Orcutt, Charles H., assignor.)						
Pearce, Thomas A. (See Adams, Joseph W., assignor.)						
Pearce, Thomas A. (See Rightmire, Harry C., assignor.)						
Pearce, William. (See Morton and Pearce.)						
Pearl Typewriter Company. (See Searing, Theodore W., assignor.)						
Pearman, John T., Cordele, Ga. Nut-lock.....	459,645	Sept. 15	1757	442	56	1420
Pearse, Julius, and E. L. Keehn, Denver, Colo. Harness-hanger.....	464,266	Dec. 1	421	{ 99 100 }	57	1214
Pearson, Aven, Washington, D. C. Galley-lock.....	459,489	Sept. 15	1489	374	56	1371
Pearson, Eli W., and T. E. Barlett; said Barlett assignor to M. Van Pelt, Sabina, Ohio. Tongs or pliers.....	459,818	Sept. 22	2024	507	56	1479
Pearson, James T. (See Hitchen, Pearson, and Richmond.)						
Pearson, Judge F., North Berwick, Me. Window-cleaner.....	465,067	Dec. 15	1670	425	57	1472
Pearson, Marshall H., Leicester, England, assignor, by mesne assignments, to John O'Flaherty Company, Montreal, Canada. Thread-controlling device for sewing-machines.....	462,580	Nov. 3	569	{ 138 139 }	57	660
Pearson, Marshall H., Leicester, England, assignor, by mesne assignments, to John O'Flaherty Company, Montreal, Canada. Feeding mechanism for sewing-machines.....	464,480	Dec. 1	725	177	57	1272
Pearson, Nels, and S. Olsson, Philadelphia, Pa. Stirrup.....	445,411	Jan. 27	2277	591	54	471
Pearson, Walter B., G. D. Phelps, and E. W. Blatchford, Chicago, Ill., assignors to said Blatchford. Cartridge-loading machine.....	464,987	Dec. 15	1528	{ 384 385 386 387 }	57	1446
Pearson, William, Salt Lake City, Utah Ter. Thickening-thread attachment for knitting-machines.....	462,155	Oct. 27	2602	648	57	520
Pearson, William A., Jr., Scranton, Pa. Rail-chair.....	449,570	Mar. 31	3732	938	54	1859
Pearson, William A., Scranton, Pa., assignor to Boies Steel Wheel Company, of Pennsylvania. Car-wheel.....	449,823	Apr. 7	276	72	55	55
Pearson, William A., Scranton, Pa., assignor to Boies Steel Wheel Company, of Pennsylvania. Press for forging car-wheels.....	449,824	Apr. 7	278	72, 73	55	55
Pease, Benjamin B., Castle Creek, N. Y. Device for propelling boats.....	453,704	June 9	839	217	55	1314
Pease, Charles F. (See Knowlton and Pease.)						
Pease, Charles S., Sewickley, Pa. Device for applying liquids.....	451,640	May 5	304	74	55	636
Pease, Edward L., Lynn, assignor to Golden Rule Company, Boston, Mass. Calendar.....	462,450	Nov. 3	366	91	57	620
Pease, Edwin O., Jersey City, N. J. Vehicle running-gear.....	449,427	Mar. 31	3525	887	54	1820
Pease, Henry C., Worcester, Mass. Leather-cutting machine.....	455,588	Feb. 3	111	27	54	533
Pease, Roger S., Rose, assignor of one-half to A. E. Bowe, St. Paul, Minn. Manufacturing glass.....	444,560	Jan. 13	916	239	54	190
Pease, Roger S., Rose, assignor of one-half to C. Babcock and A. B. Everts, Minneapolis, Minn. Method of and apparatus for the manufacture of plate-glass.....	463,642	Nov. 24	2276	599	57	1017
Pease, Roger S., Rose, assignor of one-half to C. Babcock and A. B. Everts, Minneapolis, Minn. Manufacture of glass plates.....	463,643	Nov. 24	2279	600	57	1017
Pease, Roger S., Rose, assignor of one-half to C. Babcock and A. B. Everts, Minneapolis, Minn. Manufacture of glass plates, cylinders, &c.....	463,644	Nov. 24	2282	{ 600 601 }	57	1018
Pease, Roger S., Rose, assignor of one-half to C. Babcock and A. B. Everts, Minneapolis, Minn. Manufacture of glass cylinders, pipes, &c.....	463,645	Nov. 24	2286	601	57	1018
Pease, Roger S., Rose, assignor of one-half to C. Babcock and A. B. Everts, Minneapolis, Minn. Manufacture of glass bottles, &c.....	463,646	Nov. 24	2289	601	57	1019
Pease, William W. (See Mangan, Thomas, assignor.)						
Peaslee, Charles R., Louisville, Ky. Sheet-metal-folding machine.....	445,589	Feb. 3	113	28	54	533
Peats, Alfred H., Chicago, Ill. Wall-paper exhibitor.....	454,494	June 23	1977	514	55	1549
Peccant, Charles F. (See Rathbun, Whitman C., assignor.)						
Peck, Gustav, Le Mars, Iowa. Well-boring machine.....	465,048	Dec. 15	1640	417	57	1467
Peck, Albert S. (See Hobler and Peck.)						
Peck, Alfred G., et al. (See Bruce, Norman H., assignor.)						
Peck, Charles E., Kent, Ohio. Permutation-lock.....	463,269	Nov. 17	1673	437	57	893
Peck, Frank E. (See Barr and Peck.)						
Peck, Frank J., and J. A. Ontonstorf, Dexter, N. Y. Apparatus for making solutions of bisulphites.....	464,104	Dec. 1	145	36	57	1164
Peck, Frederic M., and G. R. Case, Hartford, Conn. Vacuum apparatus.....	461,925	Oct. 27	2260	559	57	456
Peck, Frederick A. and I. F., Providence, R. I., assignors to Preston Machine Company, Boston, Mass. Shoe-upper-stretching machine.....	461,368	Oct. 13	1289	326	57	257
Peck, George L. (See Fizzell and Peck.)						
Peck, Henry L., Blue Island, Ill. Car-coupling.....	460,707	Oct. 6	286	70	57	56
Peck, Ira F. (See Peck, Frederick A. and I. F.)						
Peck, Ira F., Providence, R. I. Making seamless plated wire.....	449,428	Mar. 31	3526	888	54	1820
Peck, Ira F., Providence, R. I. Lacing-hook.....	449,449	Mar. 31	3562	897	54	1827
Peck, Ira F., Providence, R. I. Button-attaching machine.....	453,588	June 2	641	{ 163 164 }	55	1269
Peck, John W. (See Mitchell, Peck, and Mitchell.)						
Peck, Melinda. (See Peck, Orrin B., assignor.)						
Peck, Obed, Rowe, Mass. Bit-brace.....	461,617	Oct. 20	1749	431	57	349

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Peck, Orrin B., assignor to M. Peck, Chicago, Ill. Apparatus for separating particles of metallic or mineral-bearing substances of different specific gravity.....	444,613	Jan. 13	989	257	54	204
Peck, Orrin B., assignor to M. Peck, Chicago, Ill. Centrifugally treating particles of metallic or mineral-bearing substances.....	444,614	Jan. 13	990	257	54	204
Peck, Orrin B., assignor to M. Peck, Chicago, Ill. Machinery for centrifugally treating particles of metallic or mineral-bearing substances of different degrees of specific gravity.....	444,615	Jan. 13	992	258	54	205
Peck, Orrin B., assignor to M. Peck, Chicago, Ill. Machinery for centrifugally treating particles of metallic or mineral-bearing substances of different degrees of specific gravity.....	444,616	Jan. 13	993	258	54	205
Peck, Orrin B., assignor to M. Peck, Chicago, Ill. Machinery for centrifugally treating particles of metallic or mineral-bearing substances of different degrees of specific gravity.....	444,617	Jan. 13	995	259	54	205
Peck, Orrin B., assignor to M. Peck, Chicago, Ill. Machinery for centrifugally treating particles of metallic or mineral-bearing substances.....	444,618	Jan. 13	996	259	54	206
Peck, Orrin B., assignor to M. Peck, Chicago, Ill. Machinery for centrifugally treating particles of metallic or mineral-bearing substances of different degrees of specific gravity.....	444,619	Jan. 13	997	259	54	206
Peck, Stow & Wilcox Company. (See Grannis, Hial S., assignor.)						
Peck, Stow & Wilcox Company. (See Kennedy, George A., assignor.)						
Peck, Stow & Wilcox Company. (See Upson, Waldo L., assignor.)						
Peck, Thomas J., Ballston Spa, N. Y. Trestle.....	462,581	Nov. 3	571	139	57	660
Peck, Walter A. (See Bright, Richard A., assignor.)						
Peck, Walter A. (See Bright and Peck.)						
Peck, Walter A., Providence, R. I. Manufacture of cigar-bunches.....	451,737	May 5	450	109	55	664
Peck, Walter A., and R. A. Bright, Providence, R. I.; said Bright assignor to said Peck. Cigar-wrapping machine.....	451,735	May 5	445	108	55	664
Peck, Walter A., and R. A. Bright, Providence, R. I.; said Bright assignor to said Peck. Roll for cigar-machines.....	451,736	May 5	448	109	55	664
Peck, Walter A., and R. A. Bright, Providence, R. I.; said Bright assignor to said Peck. Machine for forming and rolling cigars.....	451,738	May 5	451	109	55	664
Peck, Walter A., and R. A. Bright, Providence, R. I.; said Bright assignor to said Peck. Cigar-bunching machine.....	451,739	May 5	453	110	55	665
Peckham, Edgar, New York, N. Y. Car-spring.....	456,592	July 28	2057	544	56	417
Peckham, Edgar, assignor, by mesne assignments, to Peckham Motor Truck and Wheel Company, Kingston, N. Y. Car-truck.....	458,749	Sept. 1	302	74	56	1123
Peckham, Edgar, assignor, by mesne assignments, to Peckham Motor Truck and Wheel Company, Kingston, N. Y. Car-truck.....	464,253	Dec. 1	391	93	57	1208
Peckham, Luther A., assignor of one-half to C. Fletcher, Providence, R. I. Wool-washing machine.....	462,582	Nov. 3	572	139	57	661
Peckham, James M., Fall River, assignor to G. Draper & Sons, Hopedale, Mass. Shuttle-guard for looms.....	453,499	June 2	509	131	55	1244
Peckham Motor Truck and Wheel Company. (See Peckham, Edgar, assignor.)						
Peckham, William H., Port Richmond, N. Y. Machine for forming finger-rings.....	455,430	July 7	214	55	56	44
Pecord, Jerry, Thebes, Ill. Kitchen-cabinet.....	456,160	July 21	1354	359	56	276
Pedder, John, Pittsburg, Pa. Testing the condition of steel.....	461,618	Oct. 20	1750	431	57	349
Pedersen, Johannes T., New York, N. Y. Spacing-instrument.....	452,019	May 12	893	229	55	755
Pedersen, Mikael. (See Lister and Pedersen.)						
Pedersen, Peder, and D. C. Miller, Omaha, Nebr. Car-coupling.....	447,718	Mar. 3	704	176	54	1251
Pederson, Ole, Moline, Ill. Grate.....	456,733	July 28	2295	607	56	463
Pederson, Ole, Moline, assignor of one-half to J. D. Williams, Chicago, Ill. Rotary brush.....	462,156	Oct. 27	2603	648	57	521
Pederson, Ole, Moline, assignor of one-half to J. D. Williams, Chicago, Ill. Rotary cutter.....	462,157	Oct. 27	2604	648	57	521
Pedigo, James C. (See Pedigo, Madison T. and J. C.)						
Pedigo, Madison T. and J. C., assignors of one-half to E. T. Murphy and P. O. Pedigo, Glasgow, Ky. Locking device for key-racks, &c.....	465,413	Dec. 15	2246	576	57	1581
Pedigo, Paul O., et al. (See Pedigo, M. T. and J. C., assignors.)						
Pedley, William E., Prescott, Ariz. Ter. Iron or steel telegraph or other post.....	460,831	Oct. 6	459	116	57	91
Pedrick, Joseph B., Columbus, Ind. Corn-planter attachment.....	460,159	Sept. 29	2546	635	56	1585
Peebles, Harvey M. (See Benford, William H., assignor.)						
Peebles, John. (See Woolf and Peebles.)						
Peel, James N. (See Waterons and Peel.)						
Peel, William F., London, England. Means for attaching fire-arms to cavalry harness....	464,890	Dec. 8	1354	340	57	1403
Peer, John A., Brooklyn, assignor of one-half to T. W. Bayaud, New York, N. Y. Pulverizing or reducing mill.....	462,277	Nov. 3	88	22, 23	57	568
Peer, John A., assignor to Peer Manufacturing Company, Brooklyn, N. Y. Knife-sharpener.....	465,880	Dec. 29	2997	765	57	1745
Peer, John A., assignor to Peer Manufacturing Company, Brooklyn, N. Y. Device for sharpening knives and analogous articles.....	466,293	Dec. 29	3672	938	57	1874
Peer Manufacturing Company. (See Peer, John A., assignor.)						
Peerless Button Hole Attachment Company. (See Bulley, Louis T., assignor.)						
Peets, Elias S. (See Damon and Peets.)						
Peeters, William L., Detroit, Mich. Pillow-sham holder.....	447,118	Feb. 24	2634	654	54	1051
Peeters, William L., Detroit, Mich. Pillow-sham holder.....	450,817	Apr. 21	1824	442	55	370
Pegram, George H., St. Louis, Mo. Riveting-machine.....	445,935	Feb. 3	683	167	54	645
Pegram, George H., St. Louis, Mo. Riveting-machine.....	445,936	Feb. 3	686	167	54	646
Pehrson, John, Rockford, Ill. Harrow.....	462,059	Oct. 27	2452	607	57	492
Pehrson, John, Rockford, Ill. Harrow.....	462,060	Oct. 27	2453	607	57	492
Pehrsson, Olof, Tacoma, Wash. Folding vapor-bath.....	445,432	Jan. 27	2307	598	54	477
Peick, Adolph, Sutherland, Iowa. Steam-generating fire-hox.....	458,593	Sept. 1	70	15	56	1079
Peifer, George W., Jr., and R. Johnston, Wilkes-Barré, Pa. Torpedo-placer.....	462,992	Nov. 10	1227	319	57	797
Peirce, Almy L., Grand Rapids, Mich., assignor of one-half to C. E. King, Cincinnati, Ohio. Cash register, indicator, and recorder.....	450,803	Apr. 21	1789	435	55	364
Peirce, Almy L., Grand Rapids, Mich., assignor of two-thirds to M. H. Block and O. Armleder, Cincinnati, Ohio. Autographic copying and recording apparatus.....	457,289	Aug. 4	570	151	56	639
Peirce, Charles L., Milwaukee, Wis. Speaking-tube.....	453,848	June 9	1032	270	55	1352
Peirce, Edward A., et al. (See Campbell, John S., assignor.)						
Peirce, James S., Portsmouth, N. H. Railway-rail fastener.....	464,180	Dec. 1	259	64	57	1185
Peirce, John E., Dayton, Ohio. Autographic registering apparatus.....	464,267	Dec. 1	422	100	57	1214
Peirce, William C., Providence, R. I. Railway drawing-head.....	447,200	Feb. 24	2799	692	54	1080
Peirce, William C., assignor to J. J. Scholfield, Providence, R. I. Cloth-guiding mechanism for cloth-finishing machines.....	463,581	Nov. 17	2167	572	57	987
Peitzsch, Bernhard, Stassfurt, assignor to Chemische Fabrik Buckau, Magdeburg, Germany. Treating Stassfurt salts.....	446,267	Feb. 10	1270	.....	54	763
Pelkus, William, et al. (See Kannenstine, Louis, assignor.)						
Pell, Adelle M. (See Pell, Henry W., assignor.)						
Pell, Henry W., Rome, N. Y. Spring-vehicle.....	449,695	Apr. 7	74	18	55	17
Pell, Henry W., assignor to A. M. Pell, Rome, N. Y. Spring-hanger for vehicles.....	459,792	Sept. 22	1977	498	56	1469
Pellikan, C. Otto, Vienna, Austria-Hungary. Lamp.....	456,993	Aug. 4	64	15, 16	56	545

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Peloubet, Jarvis, assignor to Lyon & Healy, Chicago, Ill. Organ-swell	457,131	Aug. 4	298	78	56	590
Pelton, Frank, Des Moines, Iowa. Railway-rail chair	461,773	Oct. 20	2006	495	57	398
Pelton, Leander, Des Moines, Iowa, assignor to King Mop and Wringer Company, of Iowa. Mop holder and wringer	460,656	Oct. 6	195	50	57	41
Pelzer John, and J. Werel, Humbird, Wis. Fanning-mill	446,365	Feb. 10	1414	347	54	793
Penberthy Injector Company. (See Downes, William A., assignor.)						
Penberthy Injector Company. (See Sweeny, Thomas J., assignor.)						
Pender, James, and W. O. Purdy, St. John, Canada. Preparing wire nails	449,861	Apr. 7	329	.....	55	66
Pendery, Emma D. (See Pendery, William H., assignor.)						
Pendery, William H., assignor to E. D. Pendery, Wyoming, Ohio. Bag-holder	445,195	Jan. 27	1963	508	54	407
Pendleton, Gurdon, Jr., Melrose, Mass. Button-fastener	453,656	June 9	755	195	55	1298
Pendleton, Gurdon, Jr., Melrose, Mass., assignor of one-half to H. D. Klots, New York, N. Y. Bobbin or spool	455,453	July 7	244	62	56	49
Pendleton, John H., et al. (See Thomas, Charles W., assignor.)						
Pendleton, John H., Brooklyn, assignor of two-thirds to D. J. Newland and C. W. Thomas, New York, N. Y. Mill	458,662	Sept. 1	180	42, 43	56	1099
Pendleton, John M. (See Madden, Albert F., assignor.)						
Penfield, Charles R., Lansing, Mich. Cutter-head	448,254	Mar. 17	1608	410	54	1442
Penfield, James W., Willoughby, Ohio. Brick-kiln	465,288	Dec. 15	2040	521	57	1541
Penfield, Mattie B., Dallas, Tex. Hot-pan lifter	444,504	Jan. 13	831	216	54	173
Penfield, Raymond C. (See Wallace and Penfield.)						
Penfield & Son, J. W. (See Wallace and Penfield, assignors.)						
Penland, William H. (See Fine, William R., assignor.)						
Penman, John. (See Schofield, Richard, assignor.)						
Penney, Joseph, Grand Rapids, Mich. Supply-tank for wash-stands	464,105	Dec. 1	147	36	57	1165
Penney, Joseph, Grand Rapids, Mich. Combined table and wash-stand	464,106	Dec. 1	149	37	57	1165
Pennie, John C. (See House, Warren D., assignor.)						
Penniman, George D., et al. (See Silksman, Edward J., assignor.)						
Penniman, Russell S., Dover, N. J. Manufacturing nitrate of ammonia	448,361	Mar. 17	1798	454	54	1479
Penniman, Russell S., Dover, N. J. Preparing nitrate of ammonia	448,362	Mar. 17	1801	454	54	1479
Pennington, Charles A., Champaign, Ill. Type-writing machine	448,255	Mar. 17	1609	411	54	1442
Pennington, Heaton, Chicago, Ill. Making lead sulphate	452,386	May 19	1525	.....	55	880
Pennington, Martiu A. (See Elmond, William H., assignor.)						
Pennington, Richard, assignor of one-half to O. Lockett, Chicago, Ill. Sash-cord clamp	456,277	July 21	1537	408	56	311
Pennock, Abraham L., Lansdowne, Pa. Transom-lifter	449,429	Mar. 31	3527	888	54	1820
Pennock, J. Walton. (See Rowland, Milton H., assignor.)						
Pennock, John D. (See Bradburn and Pennock.)						
Pennock, William D., assignor of one-half to E. J. Wilcox, Longmont, Colo. Bee-hive	449,760	Apr. 7	180	45	55	37
Pennsylvania Globe Gas Light Company. (See Meredith, Edmund, assignor.)						
Penny, John T., and W. H. Richardson, Adelaide, South Australia. Machine for amal- gamating gold and silver bearing ores	445,300	Jan. 27	2110	{ 546 547 }	54	436
Pennycook, John T., New York, N. Y., assignor to State Manufacturing Company, of New Jersey. Pneumatic signal	463,582	Nov. 17	2169	573	57	988
Pennypacker, William G. (See Grimm and Pennypacker.)						
Perry, William M., Jackson, Cal. Folding ladder	461,984	Oct. 27	2346	582	57	472
Pentz, Albert D., Elizabeth, N. J. Counter-shaft	446,138	Feb. 10	1028	{ 253 254 }	54	719
Pentz, Albert D., Elizabeth, N. J. Self-oiling loose pulley	458,539	Aug. 25	2630	640	56	1054
Pentz, Albert D., Elizabeth, N. J., assignor to himself, and A. Vanderbeek, New York, N. Y. Rotary attachment for milling-machines	461,201	Oct. 13	1012	258	57	201
Pentz, Albert D., Elizabeth, N. J., assignor to himself, and A. Vanderbeek, New York, N. Y. Boring-engine	461,202	Oct. 13	1014	{ 258 259 }	57	201
Pentz, James A. (See Reckenzaun, Anthony, assignor.)						
Penwell, William H., and W. H. Gilt, Allegheny, Pa. Stretcher-spring	463,288	Nov. 17	1694	443	57	896
Peoples, George. (See Hawks and Peoples.)						
Peoria Metal Spinning Company. (See Bervington, James H., assignor.)						
Peplin, Frank, assignor of one-half to J. J. Purinton, East Liverpool, Ohio. Painter's jack	444,280	Jan. 6	473	120	54	94
Pepper Manufacturing Company. (See Davis, Albert T. L., assignor.)						
Pepper Manufacturing Company. (See Pepper, Davis, and Sanders, assignors.)						
Pepper, Thomas, assignor of thirty-five forty-eighths to H. T. Christian, E. W. Burnham, and H. B. Sheppard, San Diego, Cal. Windmill	455,858	July 14	908	238	56	183
Pepper, William H., and A. T. L. Davis, Lake Village, N. H. Striping mechanism for knitting-machines	464,586	Dec. 8	884	{ 218 219 218 219 }	57	1314
Pepper, William H., and A. T. L. Davis, Lake Village, assignors to Pitman Manufacturing Company, Laconia, N. H. Splicing-thread-feed mechanism for knitting-machines	465,881	Dec. 29	2999	{ 765 766 766 765 }	57	1745
Pepper, William H., A. T. L. Davis, and G. A. Sanders, assignors to Pepper Manufac- turing Company, Lake Village, N. H. Knitting-machine	461,508	Oct. 20	1575	{ 386 387 386 387 }	57	317
Pequegnat, Frank, St. Louis, Mich. Stem winding and setting watch	462,506	Nov. 3	447	109	57	635
Peral, Isaac, San Fernando, Spain. Reflector	445,379	Jan. 27	2224	{ 576 577 }	54	460
Perault, John B., Belmont, Mass. Wrench	445,356	Jan. 27	2199	570	54	455
Percival, Herbert E., Oklahoma, Oklahoma Ter., assignor to E. Converse, Worcester, Mass. Pinless clothes-line	446,006	Feb. 10	814	197	54	679
Percival, Herbert E., Oklahoma, Oklahoma Ter., assignor to E. Converse, Worcester, Mass. Clothes-line	446,007	Feb. 10	815	197	54	679
Peregrine, Seymour W., Grand Rapids, Mich. Opera-chair	464,388	Dec. 1	593	146	57	1246
Perflier, Joseph E. (See Moore and Perflier.)						
Perine, George M. (See Walker, Frank, assignor.)						
Perk, Hermann, St. Louis, Mo. Automatic fire-lighter	464,891	Dec. 8	1356	341	57	1403
Perkins, Benjamin F., Holyoke, Mass. Self-closing hose-pipe	450,679	Apr. 21	1607	366	55	330
Perkins, Benjamin F., Holyoke, Mass. Filter	460,311	Sept. 29	2781	693	56	1631
Perkins, Charles A., and W. H. H. Norcross, assignors to G. H. Eaton & Co., Boston, Mass. Opera-glasses	446,611	Feb. 17	1799	445	54	882
Perkins, Charles F., and C. S. Gooding, Brookline, Mass. Dress-form	463,343	Nov. 17	1790	{ 468 469 }	57	913
Perkins, Charles G. (See Irish, William F., assignor.)						
Perkins, Charles H., et al. (See Mitchell, George P., assignor.)						
Perkins, Charles H., assignor to Rhode Island Horse Shoe Company, Providence, R. I. Manufacture of horseshoe-bars	449,051	Mar. 24	2878	{ 731 732 }	54	1693
Perkins, Charles H., assignor to Rhode Island Horse Shoe Company, Providence, R. I. Die-roll for making horseshoe-blank bars	449,052	Mar. 24	2883	732	54	1693
Perkins, Charles H., assignor to Rhode Island Horse Shoe Company, Providence, R. I. Horseshoe-blank and blank-bar	449,053	Mar. 24	2885	733	54	1694
Perkins, Charles H., assignor to Rhode Island Horse Shoe Company, Providence, R. I. Horseshoe-blank bar	449,054	Mar. 24	2886	733	54	1694

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Perkins, Charles H., assignor to Rhode Island Horse Shoe Company, Providence, R. I. Horseshoe-blank and blank-bar.....	449,056	Mar. 24	2888	733	54	1695
Perkins, Charles H., assignor to Rhode Island Horse Shoe Company, Providence, R. I. Metal-slitting machine.....	449,057	Mar. 24	2889	734	54	1695
Perkins, Dwight W., Hartford, assignor to Foster, Merriam & Company, Meriden, Conn. Caster.....	455,353	July 7	82	25	56	20
Perkins Electric Switch Manufacturing Company. (See Gibbs, Jacob S., assignor.)						
Perkins, Francis B., Boston, Mass. Electric elevator. (Reissue).....	11,185	Aug. 4	687	176	56	659
Perkins, James W., San José, Cal. Machine for making compound paper and jute twine.....	446,926	Feb. 24	2327	578	54	992
Perkins, John D., and G. Ganderton, Kenton, Ohio; said Ganderton assignor to said Perkins. Combined latch and lock.....	463,796	Nov. 24	2506	654	57	1059
Perkins, John O., <i>et al.</i> (See Stovall, Philip, assignor.)						
Perkins, Michael R., Portsmouth, N. H. Wear-plate for railway-ties.....	454,594	June 23	2151	555	55	1579
Perkins, Nelson W., <i>et al.</i> (See Stovall, Philip, assignor.)						
Perkins, Peter. (See Reynolds and Perkins.)						
Perkins, Shadrick F., <i>et al.</i> (See Stovall, Philip, assignor.)						
Perkins, Theodore E., Tunkhannock, Pa. Egg-carrier.....	449,330	Mar. 31	3345	843	54	1786
Perkins, William, <i>et al.</i> (See Dean, James H., assignor.)						
Perkins, Willis J., Grand Rapids, Mich. Miter-cutting machine.....	449,696	Apr. 7	76	18	55	17
Perkins, Willis J., Grand Rapids, Mich. Block-sawing machine.....	463,233	Nov. 17	1606	419	57	879
Perkins, Willis J., Grand Rapids, Mich. Shingle-sawing machine.....	463,234	Nov. 17	1610	420	57	880
Perr, Jacques, Berlin, Germany. Depilating composition.....	450,032	Apr. 7	571		55	110
Perraud, Jean B. (See Bechtold, William, assignor.)						
Perret, Frank A., assignor to Elektron Manufacturing Company, Brooklyn, N. Y. Electric contact device.....	448,669	Mar. 24	2292	575	54	1579
Perret, Frank A., assignor to Elektron Manufacturing Company, Brooklyn, N. Y. Electric conductor.....	461,272	Oct. 13	1124		57	224
Perrigo, Benjamin W., and A. A. Swift, Warsaw, N. Y. Pipe-tongs.....	462,583	Nov. 3	575	140	57	661
Perrin, Emile, Ponts-Martel, Switzerland. Repeating-watch.....	454,291	June 16	1661	436	55	1481
Perrin, Napoleon P., Cany Fork, Ark. Plow.....	465,068	Dec. 15	1672	425	57	1473
Perrin, Philibert F., Brunswick, Ga. Liniment.....	448,728	Mar. 24	2393		54	1599
Perry, Albert M., Richmond, Va. Rail-brake.....	447,161	Feb. 24	2737	677	54	1068
Perry, Alfred C., Platoro, Colo. Gas-stove.....	465,199	Dec. 15	1898	481	57	1514
Perry, Austin E. (See Gordon and Perry.)						
Perry, Edward L., Paterson, N. J. Bellows-fold coupling.....	449,587	Mar. 31	3766	945	54	1865
Perry, Edward L., Paterson, N. J. Self-inflating mat or cushion for sliding-poles.....	452,234	May 12	1273	321	55	823
Perry, Edward L., Paterson, N. J. Clasp for curtains and the like.....	456,636	July 28	2133	564	56	432
Perry, Edward L., Paterson, N. J. Steam-joint packing.....	462,278	Nov. 3	90	23	57	568
Perry, Enoch W., Jr. (See Kipper and Perry.)						
Perry, Enoch W., Jr., assignor to American Lead Pencil Company, New York, N. Y. Pencil or crayon.....	452,890	May 26	2334	589	55	1042
Perry, Enoch W., Jr., New York, N. Y., assignor of one-half to E. Kipper, Adams, Mass. Photographic camera.....	456,842	July 28	2481	{ 652 653 }	{ 56 56 }	496
Perry, Enoch W., Jr., New York, N. Y., assignor of one-half to E. Kipper, Adams, Mass. Plate-holder for photographic apparatus.....	458,979	Sept. 1	673	165	56	1197
Perry, Enoch W., Jr., New York, N. Y., assignor of one-half to E. Kipper, Adams, Mass. Exposing and shifting photographic plates or films.....	458,980	Sept. 1	675	165	56	1197
Perry, Enoch W., Jr., New York, N. Y., assignor of one-half to E. Kipper, Adams, Mass. Photographic apparatus.....	458,981	Sept. 1	677	165	56	1197
Perry, Enoch W., Jr., New York, N. Y., assignor of one-half to E. Kipper, Adams, Mass. Carrier or envelope for photographic films or plates.....	463,705	Nov. 24	2382	624	57	1035
Perry, Francis H., assignor of one-half to G. Walker, Fishkill, N. Y. Game apparatus.....	450,108	Apr. 7	681	172	55	133
Perry, Frank W., assignor to Hero Fruit Jar Company, Philadelphia, Pa. Bottle-stopper.....	448,070	Mar. 10	1306	{ 333 334 }	{ 54 54 }	1373
Perry, Frank W., assignor to Hero Fruit Jar Company, Philadelphia, Pa. Collapsible cup and bottle-stopper.....	450,838	Apr. 21	1853	451	55	375
Perry, Franklin W., assignor to Hero Fruit Jar Company, Philadelphia, Pa. Machine for making metal capsules.....	447,137	Feb. 24	2696	668	54	1060
Perry, George H., Franklin, Tenn. Thill-coupling.....	465,726	Dec. 22	2739	698	57	1686
Perry, George R., and W. H. Concord, N. H. Track-clearing attachment for railway-cars.....	457,540	Aug. 11	1014	260	56	730
Perry, James L., Watertown, assignor to Berlin Machine Works, Beloit, Wis. Wood-polishing machine.....	447,047	Feb. 24	2528	{ 627 628 }	{ 54 54 }	1029
Perry, James L., assignor to Berlin Machine Works, Beloit, Wis. Wood-polishing machine.....	449,697	Apr. 7	78	19, 20	55	17
Perry, James W., and R. H. Dixon, Santa Rosa, Cal. Pruning implement.....	448,363	Mar. 17	1802	454	54	1479
Perry, Samuel H., Elgin, Nebr. Cultivator.....	454,602	June 23	2163	559	55	1582
Perry, Samuel R., Scranton, Pa. Piano-forte action. (Reissue).....	11,138	Jan. 6	680	177	54	134
Perry, Samuel R., Scranton, Pa. Piano-action.....	449,263	Mar. 31	3212	811	54	1764
Perry, Samuel R., Scranton, Pa. Piano-forte action.....	453,938	June 9	1152	301	55	1376
Perry, Samuel R., Scranton, Pa. Piano-action.....	457,666	Aug. 11	1203	309	56	766
Perry, Theodore A., Norfolk, Va. Pipe-holder.....	465,727	Dec. 22	2740	699	57	1686
Perry, Thomas H., Indianapolis, Ind. Combined paper-cutter and book-mark.....	445,196	Jan. 27	1965	508	54	408
Perry, Thomas O., Chicago, Ill. Safety-coupling.....	447,413	Mar. 3	232	59	54	1161
Perry, Thomas O., Chicago, Ill. Automatic water-supply regulator.....	455,950	July 14	1049	275	56	208
Perry, Thomas O., Chicago, Ill. Windmill-derrick. (Reissue).....	11,181	July 28	2633	690	56	525
Perry, Thomas O., Batavia, Ill. Windmill.....	451,225	Apr. 28	2464	{ 609 610 }	{ 55 55 }	501
Perry, William A., <i>et al.</i> (See Alberges, Louis R., assignor.)						
Perry, William A., <i>et al.</i> (See Nickel, Franz F., assignor.)						
Perry, William A., <i>et al.</i> (See Schwanhauser, William, assignor.)						
Perry, William D., <i>et al.</i> (See Easton, James W., assignor.)						
Perry, William H. (See Perry, George R. and W. H.)						
Perry, William O. (See Danals and Perry.)						
Perry, Wilton H., Brooklyn, N. Y. Fruit-cleaner.....	447,901	Mar. 10	1035	260	54	1321
Perry, Wilton H., Brooklyn, N. Y. Apparatus for baking, roasting, and steaming.....	448,886	Mar. 24	2633	662	54	1644
Person, Lucius, Holyoke, Mass. Automatic animal-feeder.....	448,256	Mar. 17	1611	411	54	1442
Pervell, Leighton M., Manheim, Pa. Barometrical rose.....	456,498	July 21	1901	502	56	379
Pessano, Antonio C., assignor to G. V. Cresson, Philadelphia, Pa. Shaft-hanger.....	452,739	May 19	2076	522	55	983
Pessano, Antonio C., assignor to G. V. Cresson, Philadelphia, Pa. Band-pulley.....	452,730	May 19	2076	523	55	984
Peteler, Frank C., Minneapolis, Minn. Heater.....	446,008	Feb. 10	816	197	54	679
Peteler, Frank C., Minneapolis, Minn. Air-superheater.....	458,037	Aug. 18	1821	475	56	892
Peter, Victor, Williamsport, Pa. Roundabout.....	457,619	Aug. 11	1137	{ 290 291 }	{ 56 56 }	754
Peters, Alexander N., St. John, Canada. Press.....	454,662	June 23	2258	580	55	1599

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Peters Cartridge Company. (See Ligowsky, George, assignor.)						
Peters, Franz B. (See Adams and Peters.)						
Peters, George W., Lancaster, Ohio. Vehicle-seat	458,777	Sept. 1	346	84	56	1132
Peters, Henry W., assignor of one-half to H. H. Holtmann, St. Louis, Mo. Adjustable fan-nozzle street-sprinkler	455,723	July 7	690	182	56	133
Peters, James, Latrobe, assignor of one-half to E. Metzger, Pittsburg, Pa. Machine for making paper pipes	465,414	Dec. 15	2247	576 } 577 }	57	1581
Peters, James H., Coleman, Mich. Forming-machine	453,657	June 9	756	195	55	1299
Peters, James H., Coleman, Mich. Bending-machine	456,774	July 28	2373	624	56	477
Peters, John M., Brooklyn, N. Y. Time-stamp	453,206	June 2	35	11	55	1156
Peters, Lemuel C., Wallaceton, Pa. Hair-tonic	451,838	May 5	595		53	693
Petersen, Edward A. C., Chicago, Ill. Baker's oven	462,158	Oct. 27	2605	648 } 649 }	57	521
Petersen, Edward A. C., Chicago, Ill. Baker's oven	462,159	Oct. 27	2606	649	57	522
Petersen, Henry, assignor to J. O. Parker, trustee, Chicago, Ill. Furnace	444,671	Jan. 13	1082	280	54	222
Petersen, Henry W., Appleton, Wis. Dust-arrester	463,689	Nov. 24	2356	617	57	1031
Petersen, Paul S. N., Utica, N. Y. Car-coupling	450,680	Apr. 21	1609	387	55	330
Petersen, Peter, Fremont, Nebr. Wagon-jack	462,327	Nov. 3	173	44	57	583
Petersen, Peter F., assignor of one-half to W. O. Schmidt, Davenport, Iowa. Safety car-brake	453,984	June 9	1220	317	55	1389
Petersen, William, St. Louis, Mo. Portable bottom for sofa-beds	458,858	Sept. 1	479	115	56	1157
Peterson, Abram B. (See Rollings, Elivaeth J., assignor.)						
Peterson, Alfred. (See Hopkins and Peterson.)						
Peterson, Benjamin W., Wheeling, W. Va. Means for packing sheet-metal roofing	453,500	June 2	510	131	55	1244
Peterson, Benjamin W., Wheeling, W. Va. Sheet-metal roofing-package	453,501	June 2	512	131	55	1244
Peterson, Benjamin W., Wheeling, W. Va. Ornamenting sheet-metal panels	453,564	June 2	601	153	55	1261
Peterson, Charles, Maple Plain, Minn. Baling-press	454,495	June 23	1978	515	55	1550
Peterson, Charles E., Marinette, Wis. Spirit-level	465,882	Dec. 29	3002	766	57	1745
Peterson, Charles J. (See Oliver, Thomas, assignor.)						
Peterson, Cyrus A., Stratton, Nebr. Shearing-roll for cutting blanks for fence-posts	463,916	Nov. 24	2719	704 } 705 }	57	1098
Peterson, Emanuel, Boston, Mass. Damper for piano-fortes	463,449	Nov. 17	1953	510	57	946
Peterson, Hans. (See Kirby, Jeremiah W., assignor.)						
Peterson, John W., Slater, Iowa. Wire-stretcher	460,885	Oct. 6	542	136	57	107
Peterson, Jacob H., Moreland, Iowa. Mechanical movement	453,207	June 2	38	11	55	1156
Peterson, Leonard V., et al. (See Benefield, Harry A., assignor.)						
Peterson, Ola L., Assaria, Kans. Wheat-drill	445,076	Jan. 20	1768	455 } 456 }	54	361
Peterson, Ola L., Assaria, Kans. Grain-drill	463,542	Nov. 17	2100	553 } 554 }	57	974
Peterson, Richard N. (See Clouser, Samuel F., assignor.)						
Peterson, Theodore, assignor to Howard Manufacturing Company, Akron, Ohio. Gymnastic live ball	450,185	Apr. 14	788	199	55	160
Peterson, Theodore, assignor to Howard Manufacturing Company, Akron, Ohio. Vaulting-horse	450,186	Apr. 14	789	199	55	160
Peterson, Theodore, assignor to Howard Manufacturing Company, Akron, Ohio. Peg-pole	450,187	Apr. 14	790	200	55	160
Peterson, Theodore, assignor to Howard Manufacturing Company, Akron, Ohio. Neck-exercising apparatus	450,188	Apr. 14	791	200	55	161
Peterson, Theodore, assignor to Howard Manufacturing Company, Akron, Ohio. Exercising-shot	450,759	Apr. 21	1715	415	55	351
Peterson, Theodore, assignor to Howard Manufacturing Company, Akron, Ohio. Gymnastic apparatus	451,411	Apr. 28	2750	680 } 681 }	55	557
Peterson, Victor E. (See Palmros, Alexander, assignor.)						
Petit, Herbert. (See Gotshall and Petit.)						
Petithomme, Joseph, Oakland, Cal. Dust-guard for car-axle boxes	464,107	Dec. 1	150	37	57	1165
Petrie, Charles L. (See Harris, Orrin C., assignor.)						
Petrie, Henry L. (See Chapman, Clarence L., assignor.)						
Petrie, James A. (See Guffin and Petrie.)						
Petro, Samuel H., assignor of one-half to W. Hunt, Darlington, Ind. Incubator	446,980	Feb. 24	2408	599	54	1008
Petro, Samuel H., and M. Darnell, assignors of one-third to W. Hunt, Darlington, Ind. Hay-rack	450,977	Apr. 21	2074	512	55	418
Pettay, Charles H., assignor to W. W. Alexander, Akron, Ohio. Line-tightener	449,085	Mar. 24	2933	743	54	1703
Pettengill, Asa. (See Pettengill, Walter E., assignor.)						
Pettengill, Walter E., assignor of one-half to A. Pettengill, Rockville, Conn. Nail-puller	445,077	Jan. 20	1769	456	54	361
Petterson, Per A., New York, N. Y. Ventilator for boots or shoes	454,880	June 30	2605	669	55	1672
Petterson, Per A., New York, N. Y. Car-brake	455,495	July 7	306	78	56	62
Petterson, Per E., Minneapolis, Minn. Electric belt	462,732	Nov. 10	809		57	716
Petteys, John Y., McIntosh, Fla. Apparatus for drying veneers	463,917	Nov. 24	2713	705	57	1098
Pettibone, Mulliken & Company. (See Ericson, John V., assignor.)						
Pettigrew, Charles. (See Smith, Treat, and Pettigrew.)						
Pettigrew, Charles. (See Treat, Smith, and Pettigrew.)						
Pettigrew, Charles, Joliet, assignor to Illinois Steel Company, Chicago, Ill. Billet-conveyor	445,286	Jan. 27	2096	541	54	433
Pettigrew, Charles, Joliet, assignor to Illinois Steel Company, Chicago, Ill. Billet-conveyor	445,287	Jan. 27	2096	541	54	433
Pettigrew, Charles, Joliet, assignor to Illinois Steel Company, Chicago, Ill. Billet-conveyor	445,288	Jan. 27	2097	542	54	433
Pettigrew, Charles, Joliet, H. S. Smith, and F. H. Treat, assignors to Illinois Steel Company, Chicago, Ill. Shears for metal	455,053	June 30	2949	750 } 751 }	55	1737
Pettingill, Ubert K. (See Burrows, George C., assignor.)						
Pettis, George W. (See Miller, Cornelius, assignor.)						
Pettit, Elihu R., Philadelphia, Pa. Holder for floss silk and tooth-picks and cutting attachments	465,677	Dec. 22	2678	683	57	1673
Pettit, John R., New York, N. Y. Toy bowling-alley	458,066	Aug. 18	1861	485	56	900
Pettitt, Albert T., Warrerville, Nebr. Draft-equalizer	460,487	Sept. 29	3040	762	56	1680
Pew, Fred. S. (See Swan, William W., assignor.)						
Pew, Joseph N., Pittsburg, Pa. System for pumping natural gas	448,670	Mar. 24	2233	575	54	1580
Pfaff, Martin, St. Paul, Minn. Overalls	452,528	May 19	1764	443	55	923
Pfeffer, John B., Jr., and G. H. Knittel, St. Louis, Mo. Hermetically-sealed dual receptacle	455,516	July 7	341	88	56	68
Pfeffer, John F., Cincinnati, Ohio. Cash indicator and recorder	463,706	Nov. 24	2383	624 } 625 }	57	1036
Pfeifer, John A. (See Mercer, William F., assignor.)						
Pfeifer, William, et al. (See Freese, Claus, assignor.)						
Pfeiffer, Emil C., Cambridge, Mass. Pen-extractor	454,064	June 16	1330	348	55	1418
Pfeil, Gracie. (See Pfeil, Philip, assignor.)						
Pfeil, Henry S., Philadelphia, Pa. Railway switch and lock apparatus	463,543	Nov. 17	2102	554	57	974

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Pfeil, Philip, assignor to G. Pfeil, St. Louis, Mo. Curtain-fixture	452,282	May 12	1347	336	55	837
Pferdnor, Adolf, assignor to P. J. Healy, Chicago, Ill. Tone-sustaining device for pianos	448,887	Mar. 24	2635	662	54	1644
Pfetsch, Jacob F., Erie, Pa. Car-brake	462,993	Nov. 10	1228	320	57	798
Pfetsch, Jacob F., Erie, Pa. Cogged wheel	462,994	Nov. 10	1229	320	57	798
Pfingst, Louis P. (See Smith and Pfingst.)						
Pfingst, Louis, Boston, Mass. Step-hanger for street-cars	458,373	Aug. 25	2373	578	56	1003
Pfingst, Louis, Boston, Mass. Car-spring	462,958	Nov. 10	1181	306	57	788
Pfingst, Louis, Boston, Mass. Car-spring	462,971	Nov. 10	1202	313	57	792
Pfingst, Louis, Boston, and S. A. Bemis, Springfield, Mass. Truck for railway-cars	449,382	Mar. 31	3440	866	54	1803
Pfister, John J., San Francisco, Cal. Athlete's supporter	452,529	May 19	1765	444	55	923
Pfizinger, William, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Yellow dye	446,009	Feb. 10	817		54	679
Pfaum, Nicholas, Port Jervis, N. Y. Metallic piston-packing	450,493	Apr. 14	1290	316	55	254
Pfeghar, Frank P., New Haven, Conn., assignor to A. B. Schofield, Brooklyn, N. Y. Ice-pick	452,555	May 19	1804	454	55	930
Pfieger, John H., Johnstown, Pa. Foot-guard for switches	463,074	Nov. 10	1354	350	57	823
Pfueger, Ernest F., Akron, Ohio. Harness-rosette	444,370	Jan. 6	607	156	54	120
Pfueger, Ernest F., Akron, Ohio. Sweat-pad fastening	448,071	Mar. 10	1306	334	54	1374
Pfueger, Ernest F., Akron, Ohio. Sweat-pad fastener	454,762	June 23	2401	616	55	1629
Pfountz, D. R. (See Green, John, assignor.)						
Pfounts, Leroy S., Canton, Ohio. Friction-clutch	451,683	May 5	371	91	55	649
Pfounts, Leroy S., assignor of one-half to W. J. Piero and F. W. Bond, Canton, Ohio. Trolley-wire support	461,785	Oct. 20	2023	499	57	401
Phare, John J., assignor of one-half to W. J. Gurney, Independence, Mo. Combined carriage-jack and tire-tightener	452,235	May 12	1274	321	55	824
Phelan, Charles, and H. Eldridge, Portland, Oreg. Device for steaming and bleaching fruit	453,658	June 9	757	195 196	55	1299
Phelon, Cyrus, East Granville, Mass. Stanchion	464,080	Dec. 1	113	28	57	1158
Phelps, Andrew J., Syracuse, N. Y. Seal	461,523	Oct. 20	1606	393	57	323
Phelps, Casper F. (See Lucas and Phelps.)						
Phelps, George D. (See Pearson, Phelps, and Blatchford.)						
Phelps, George N., Brooklyn, assignor of one-half to H. S. Nyman, New Brighton, N. Y. Ore-roasting furnace	446,996	Feb. 24	2430	605	54	1012
Phelps, Harvey J., assignor of one-half to O. B. Thorp, Havana, Ill. Grain-drill	448,991	Mar. 24	2785	705	54	1675
Phelps, Henry W., et al. (See Ranney, Darwin D., assignor.)						
Phelps, James H., Sharon, Wis. Piano-forte action	465,494	Dec. 22	2374	608	57	1616
Phelps, James R., Sacramento, Cal. Spreader for gaiting horses	444,570	Jan. 13	936	243	54	193
Phelps, James R., Sacramento, Cal. Harness	457,935	Aug. 18	1666	436	56	893
Phelps, Lucius J., Passaic, N. J., assignor to D. D. Mac Mullen, Brooklyn, N. Y. Lubricator for car-axles	454,763	June 23	2401	616	55	1629
Phiffer, George A., Harrison, Ohio. Coffee-boiler	444,014	Jan. 6	49	14	54	13
Philadelphia Typewriter Company. (See Brooks, Byron A., assignor.)						
Philbin, D. M. (See Ericson, John V., assignor.)						
Philburn, Anthony, Ashton-under-Lyne, England. Bottle stopper and fastener	465,883	Dec. 29	3004	466	57	1746
Phillip, Frank, Stockport, N. Y. Scratch-awl	445,380	Jan. 27	2226	577	54	460
Phillips, Andrew G., San Francisco, Cal. Sofa-bed	446,603	Feb. 17	1788	443	54	880
Phillips, Austin. (See McLanchlin, William D., assignor.)						
Phillips, Camillus J., Philadelphia, Pa. Hand-strap for street-cars	459,256	Sept. 8	1111	271	56	1288
Phillips, Charles, assignor of one-half to J. Tholen, Chicago, Ill. Velocipede	457,290	Aug. 4	574	152	56	639
Phillips, Charles E., Rochester, N. Y., assignor to H. Rogers, trustee, Boston, Mass. Heel-trimming machine	445,233	Jan. 27	2018	520	54	418
Phillips, Charles F., Brooklyn, N. Y. Spring bed-bottom	458,374	Aug. 25	2374	579	56	1004
Phillips, Charles H., Boston, assignor to C. J. Seymour, Brookline, Mass. Elevator and conveyer	454,663	June 23	2259	580	55	1599
Phillips, Charles H., Boston, assignor to C. J. Seymour, Brookline, Mass. Elevator and conveyer	456,423	July 21	1801	476	56	359
Phillips, Charles H., Boston, and C. J. Seymour, Brookline, Mass.; said Phillips assignor to said Seymour. Elevator and conveyer	456,518	July 21	1939	511	56	387
Phillips, Clavius, et al. (See Warrand, Constantine B., assignor.)						
Phillips, Cornelius J., New York, N. Y. Expansible bolt-fastening device	445,332	Jan. 27	2163	561	54	448
Phillips, Elbert B., Cleveland, Ohio. Car starter and brake	457,790	Aug. 18	1409	365 366	56	815
Phillips, Elwood C., Chicago, Ill. Tool-grinder	451,515	May 5	106	26	55	599
Phillips, Elwood C., Chicago, Ill. Roll-paper holder and cutter	456,964	Aug. 4	66	16	56	545
Phillips, Elwood C., Chicago, Ill. Boring-bit	458,640	Sept. 1	145	34	56	1094
Phillips, Fitz E., Weyauwega, Wis. Marble-roller	454,603	June 23	2167	560	55	1583
Phillips, Francis V., and G. H. Dayton, Chicago, Ill. Anti-rattler for thill-couplings	456,203	July 21	1420	377	56	289
Phillips, Frederick R. (See Davies, Isaac, assignor.)						
Phillips, George. (See Brown, Edward K., assignor.)						
Phillips, Henry, New York, N. Y. Campaign badge	450,524	Apr. 14	1331	327	55	262
Phillips, Henry, New York, N. Y. Electric pendulum clock	466,011	Dec. 29	3230	823	57	1729
Phillips, Henry, Chicago, Ill. Pipe-wrench	454,917	June 30	2689	688	55	1688
Phillips, Henry, Newark, N. J., assignor to Spiral Weld Tube Company, of New Jersey. Device for scouring metallic cylinders	445,197	Jan. 27	1967	508	54	408
Phillips, Hiram. (See Kirtley and Phillips.)						
Phillips, James B., assignor of one-half to W. J. Dougherty, Miles Grove, Pa. Fork-rolling machine	449,058	Mar. 24	2891	734	54	1695
Phillips, Jerome, Aurora, Ill. Clothes-pounder	464,081	Dec. 1	114	28	57	1159
Phillips, Joh F., Weakley County, Tenn. Animal-poke	450,525	Apr. 14	1332	327	55	262
Phillips, John E., Philadelphia, Pa. Spool for textile machinery	449,914	Apr. 7	407	102	55	80
Phillips, John O., New York, N. Y. Thermal cut-out	460,538	Sept. 29	3141	785	56	1701
Phillips, John O., New York, N. Y., assignor to McCreary Electrical Specialty Company. Incandescent-electric-lamp socket	459,514	Sept. 15	1529	382	56	1378
Phillips, John V. (See Matson and Phillips.)						
Phillips, Judson B., Fenton, Mich. Window-screen frame	445,026	Jan. 20	1624	433	54	345
Phillips, Simeon G., Woodbridge, N. J. Drying apparatus	449,170	Mar. 31	3063	775	54	1737
Phillips, Simeon G., Woodbridge, N. J. Drying apparatus	449,231	Mar. 31	3159	797	54	1754
Phillips, Thomas A., and J. J. Greenhoe, Williamstown, Pa. Permutation-lock	447,621	Mar. 3	572	141	54	1225
Phillips, Walter, Coventry, England. Velocipede	445,574	Feb. 3	86	20	54	528
Phillips, William A. (See Entz and Phillips.)						
Phillips, William H. (See Marvel, Theodore L., assignor.)						
Phillips, William H., Bridgeton, N. J. Halyard-clamp	452,387	May 19	1528	378	55	880
Phillips, William H., Terre Haute, assignor of one-third to J. H. and G. F. Kirkhoff, Indianapolis, Ind. Oil-gas burner	460,657	Oct. 6	196	50	57	41

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Phillips, William H., assignor of one-third to J. S. Beach, Terre Haute, Ind. Oil-meter.	465,495	Dec. 22	2376	608	57	1616
Phillips, William H., Jenkintown, assignor of one-half to F. G. Bates and J. W. Hunter, Philadelphia, Pa. Switch-chair.	464,732	Dec. 8	1128	279	57	1358
Phillips, William H., Jenkintown, assignor to himself, A. Gilpin, and P. W. Knauff, Philadelphia, Pa. Carriage-actuating mechanism.	464,587	Dec. 8	889	219	57	1314
Phillips, William R., Seattle, Wash. Hydraulic air-compressor.	452,283	May 12	1348	336	55	837
Phillips, Willis E., Saguache, Colo. Cartridge-loading machine.	461,273	Oct. 13	1125	287	57	224
Phillipson, John, assignor of one-half to J. Rushforth, Bradford, England. Drain-valve.	462,823	Nov. 10	958	249	57	745
Phillis, Avery E., assignor to Logan & Strobbridge Iron Company, New Brighton, Pa. Coffee-mill.	449,086	Mar. 24	2933	743	54	1703
Philpot, William H., assignor of two-thirds to D. Speiser, Jr., Humboldt, and J. F. Snethen, Dawson, Nebr. Churn.	458,482	Aug. 25	2544	620	56	1035
Phinney, George W., Guerneville, Cal. Plow.	449,331	Mar. 31	3346	844	54	1786
Phinney, Squire Z., Pawtucket, R. I. Cigar cutting and branding machine.	448,302	Mar. 17	1702	431	54	1460
Phippen, Charles, <i>et al.</i> (See Grant, Daniel, assignor.)						
Phipps, Edward L., Milford, Mich. Freight-car door.	463,127	Nov. 10	1448	374	57	841
Phipps, George T. (See Phipps, William, assignor.)						
Phipps, Isaac N., Mount Sterling, Ky. Top-spinning pistol.	458,483	Aug. 25	2545	620	56	1036
Phipps, Thomas F., Philadelphia, Pa. Conveyor for thrashing-machines.	450,420	Apr. 14	1184	289	55	232
Phipps, William, assignor of one-half to G. T. Phipps, Milwaukee, Wis. Check-damper for stoves, &c.	445,078	Jan. 20	1770	456	54	361
Phonopore Syndicate. (See Langdon-Davies, Charles, assignor.)						
Picard, John, St. Paul, Ore. Animal-trap.	451,839	May 5	596	147	55	693
Picard, Louis, Rheims, France. Bottle capsule-detacher and cork-unfastener.	450,891	Apr. 21	1366	475	55	390
Pichereau, Asahel P., Galesburg, Ill. Game-board.	452,061	May 12	983	250	55	770
Pick, Sigismund, Szczakowa, Austria-Hungary. Apparatus for evaporating liquors containing salt.	456,499	July 21	1901	503	56	379
Pick, Sigismund, Szczakowa, Austria-Hungary. Vacuum evaporating apparatus.	464,389	Dec. 1	594	{ 146 147 }	57	1247
Pickard, Arthur, Leeds, England. Construction of canals.	448,072	Mar. 10	1307	334	54	1374
Pickarts, Carl H., Leavenworth, Kans. Letter-box for collection and delivery.	462,733	Nov. 10	811	{ 211 212 }	57	717
Pickell, James M., Lake City, Fla. Switch attachment for cars.	458,484	Aug. 25	2547	621	56	1036
Pickens, Charles E., Grand Ledge, Mich. Wrench.	453,820	June 9	1003	262	55	1346
Pickens, Rial A. (See Park and Pickens.)						
Pickering, Barton, Dayton, Ohio. Pencil-sharpener.	460,658	Oct. 6	197	50	57	41
Pickernell, Frank A., Newark, N. J. Multiple telephone switch-board.	463,544	Nov. 17	2104	555	57	975
Pickernell, Frank H., Newark, N. J. Multiple switch-board.	463,545	Nov. 17	2107	555	57	975
Pickett, David M., assignor of one-third to S. W. Barkwell, Dearborn, Mich. Game apparatus.	455,054	June 30	2951	751	55	1738
Pickett, John H., Annapolis, Ind. Baling-press.	461,044	Oct. 13	775	198	57	157
Pickett, William H., <i>et al.</i> (See Betts, Charles D., assignor.)						
Pickett, William H., Warren, Pa. Extension-table.	457,429	Aug. 11	836	{ 216 217 }	56	696
Pickett, William H., Warren, Pa. Hasp-lock.	459,978	Sept. 22	2264	568	56	1524
Pickett, William H., assignor of one-half to C. S. Homer, Warren, Pa. Extension-table.	457,443	Aug. 11	859	{ 222 223 }	56	701
Pickles, Charles K., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.	445,079	Jan. 20	1771	456	54	361
Pickles, Charles K., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.	445,080	Jan. 20	1772	457	54	362
Pickles, Charles K., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.	446,010	Feb. 10	818	197	54	679
Pickles, Charles K., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.	446,011	Feb. 10	819	198	54	680
Pickles, Charles K., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.	446,012	Feb. 10	819	198	54	680
Pickles, Charles K., assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.	446,366	Feb. 10	1415	348	54	793
Pickles, Charles K., St. Louis, Mo., assignor, by mesne assignments, to Lansberg Brake Company, East St. Louis, Ill. Automatic brake.	450,033	Apr. 7	572	142	55	111
Pickles, Charles K., and G. N. Hinchman, Jr., assignors to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.	451,899	May 5	682	173	55	708
Pickles, James D., Buckland, Conn. Dusting-engine.	450,916	Apr. 21	1968	482	55	398
Pickles, Joseph, and A. Horsfall, New Bedford, Mass. Loom-picker.	454,525	June 23	2025	{ 524 525 }	55	1557
Pickup, George A. (See Towry and Pickup.)	459,793	Sept. 22	1978	498	56	1469
Pickup, Peter W. (See Hudson and Pickup.)						
Pidgin, Charles F., Cambridge, Mass. Sheet-music.	462,972	Nov. 10	1203	313	57	792
Piedra, Miguel N., Lagos, Mexico. Cooking-stove.	457,667	Aug. 11	1205	309	56	766
Pieper, Henry, Liege, Belgium. Secondary battery.	456,843	July 28	2484	653	56	496
Pieper, Louis F., New York, N. Y. Show-cover.	461,942	Oct. 27	2287	566	57	461
Pieper, Oscar H., and F. M. Watson, San José, Cal. Wall-fixture for electrical conductors.	454,226	June 16	1564	411	55	1463
Pier, Colwert K., <i>et al.</i> (See Keeney, Charles H., assignor.)						
Pierce, Arthur M., Brooklyn, N. Y. Automaton.	464,268	Dec. 1	424	100	57	1215
Pierce Brothers & Company. (See Hudson, Charles E., assignor.)						
Pierce, Calvin S. (See Stump, Ira E., assignor.)						
Pierce, Charles A., Lynn, Mass., assignor to Eureka Electric Company, New York, N. Y. Automatic lubricator.	450,421	Apr. 14	1186	289	55	233
Pierce, Frank. (See Brown, Thomas, assignor.)						
Pierce, George W. (See Preston, Charles A., assignor.)						
Pierce, Hannah M., Manitowoc, Wis. Stand for fire-irons.	459,936	Sept. 22	2211	555	56	1515
Pierce, Harry L., Leominster, Mass. Trolley-switch.	460,488	Sept. 29	3041	762	56	1680
Pierce, Jesse W., Belton, Tex. Type-writing machine.	466,638	Feb. 17	1843	{ 457 458 }	54	890
Pierce, Joel A., assignor of one-half to W. Scroggin, Bearden, Ark. Cotton-chopper.	462,451	Nov. 3	367	91	57	620
Pierce, Jonathan A., assignor of five-eighths to L. D. Baird, Austin, Minn., and H. Allen, Washington, D. C. Mail-pouch fastener.	462,774	Nov. 10	877	230	57	728
Pierce, Lake C. (See Milton, Thomas M., assignor.)						
Pierce, Marsh C., assignor, by mesne assignments, to Manufacturers' Automatic Sprinkler Company, Syracuse, N. Y. Deflector.	452,081	May 12	1025	259	55	775

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Pierce, Samuel H., <i>et al.</i> (See Waldecker, Henry C., assignor.)						
Pierce Steam Heating Company. (See Bryant, Orrin, assignor.)						
Pierce, Thomas, Albany, N. Y. Rest for heel-trimming machines	458,594	Sept. 1	71	16	56	1080
Pierce, William H. (See Gunder and Pierce.)						
Pierce, Winfield S., <i>et al.</i> (See Waldecker, Henry C., assignor.)						
Piero, William J., <i>et al.</i> (See Pfouts, Leroy S., assignor.)						
Piero, William J. (See Voisard, Louis F., assignor.)						
Pierpont, Robert B. (See Cadwell, Jason R., assignor.)						
Piers, Benjamin, Xenia, Ohio. Machine-stud	458,186	Aug. 25	2043	530	56	943
Pierson, James S. (See Johnson, John A., assignor.)						
Pietsch, Herman, Flatbush, N. Y. Basin-fixture	450,034	Apr. 7	573	{ 142 143 }	55	111
Pietschmann, Carl, Pankow, near Berlin, assignor to Berliner Musik Instrumenten Fabrik, Aktien Gesellschaft, vormals Chas. F. Pietschmann & Söhne, Berlin, Germany. Mechanical musical instrument.	447,970	Mar. 10	1157	293	54	1343
Pietz, Charles, New York, N. Y. Tuning-slide for brass musical instruments	461,131	Oct. 13	889	231	57	178
Piggins, Charles R., Racine, Wis. Lifting-jack	446,537	Feb. 17	1701	417	54	862
Pigott, Michael A., St. Louis, Mo. Clothes-wringer	446,612	Feb. 17	1800	445	54	882
Pigott, William, Chicago, Ill. Cab fare-register	456,905	July 28	2577	{ 677 678 679 680 }	56	514
Piguet, Louis E., Brassus, Switzerland. Stop-watch	449,915	Apr. 7	408	102	55	80
Pihl, Karl J., Brooklyn, N. Y. Tool-holder for engine-lathes	462,160	Oct. 27	2607	649	57	522
Pike, Charles F., Philadelphia, Pa. Ore washer and concentrator	458,837	Sept. 1	450	108	56	1151
Pike, Charles F., Philadelphia, Pa. Amalgamator	458,838	Sept. 1	452	109	56	1152
Pike, Charles F., Philadelphia, Pa. Ore washer or concentrator	458,958	Sept. 1	636	156	56	1119
Pike, Edward D., San Francisco, Cal. Detonating top	457,520	Aug. 11	982	551	56	723
Pike, Edward M., and J. Castle, Chenoa, Ill. Brick-kiln	463,167	Nov. 17	1515	{ 393 394 }	57	861
Pike, Robert G., Jr., Brooklyn, N. Y. Lock-hinge	457,556	Aug. 11	1039	267	56	736
Pike, William A., Brooklyn, N. Y. Game apparatus	455,431	July 7	216	55	56	44
Pike, William L., Groton, N. Y. Road-cart	446,894	Feb. 24	2246	559	54	978
Pike, William L., Groton, N. Y. Top joint-lever	461,845	Oct. 27	2123	523	57	428
Pike, William L., Groton, N. Y. Vehicle-gear	463,391	Nov. 17	1879	490	57	931
Pike, William L., and B. H. Sykes, Groton, N. Y.; said Sykes assignor to said Pike. Road-cart	454,006	June 9	1248	325	55	1394
Pilcher, John V., Louisville, Ky. Clasp for clothing	458,485	Aug. 25	2548	621	56	1036
Pilcher, John V., Louisville, Ky. Cuff-attacher	465,496	Dec. 22	2377	608	57	1616
Pilkington Brothers, Messieurs. (See Malevez, Melchior, assignor.)						
Pilkington, George B., assignor to Traut & Hine Manufacturing Company, New Britain, Conn. Buckle	451,840	May 5	597	148	55	693
Pilkinton, George B., assignor to Traut & Hine Manufacturing Company, New Britain, Conn. Suspender-buckle	462,914	Nov. 10	1107	288	57	774
Pilkington, Herbert M., and R. S. White, Brooklyn, N. Y. Electric meter	454,949	June 30	2753	702	55	1699
Pilkington, Joseph H., assignor to Smith & Griggs Manufacturing Company, Waterbury, Conn. Clasp	452,582	May 19	1844	463	55	937
Pilling, Robert, <i>et al.</i> (See Swinglehurst, Harry, assignor.)						
Pilling, Samuel G., Cincinnati, Ohio. Guiding and tension device for sewing-machines	461,369	Oct. 13	1292	327	57	257
Pillings, George T. (See Hooper, Pillings, and Price.)						
Pillot, Alexandre. (See Benoit and Pillot.)						
Pillsbury, Charles J. (See Ballard, Harrie A., assignor.)						
Pillsbury, Charles J., <i>et al.</i> (See Waldron, Charles F., assignor.)						
Pimlott, Joseph A., and A. J. Downing, Towanda, Kans. Wheel-cultivator	455,688	July 7	628	166	56	122
Pinch, Frank, Sidney, assignor of three-fourths to W. S. Cook, Odsville, L. E. Hoyt and J. Tregurtha, Walton, N. Y. Lubricating packing-case for piston or other rods	460,400	Sept. 29	2914	728	56	1656
Pinchetti, Henry. (See Hicks and Pinchetti.)						
Pincus, Henry, assignor, by mesne assignments, to Identification Card Company, New York, N. Y. Identification-card	462,584	Nov. 3	576	140	57	661
Pine, Edward M., Washington, D. C. Flash-light for photography	462,507	Nov. 3	448	109	57	636
Pine, Edwin M., Puyallup, Wash. Baling-press	456,057	July 14	1202	316	56	237
Pine Fibre Company. (See Washburn, Albert L., assignor.)						
Pine, James K. P., Lansingburg, assignor to United Shirt and Collar Company, Troy, N. Y. Machine for infolding the edges of cuff and collar blanks	456,906	July 28	2589	{ 680 681 }	56	516
Pine, Julien M. (See Welton, Andrus, and Pine.)						
Pine, Norton H., <i>et al.</i> (See Hobart, John H., assignor.)						
Pinfold, Arthur G., Cleckheaton, England. Metronome	449,635	Mar. 31	3861	967	54	1884
Pingree, Mellen A. (See Howard, Frank P., assignor.)						
Pink, Thomas, London, England. Registering apparatus chiefly for amounts due for piece-work	462,365	Nov. 3	236	58	57	595
Pinkert, Georg, Munich, Germany. Tricycle	463,283	Nov. 17	1687	441	57	895
Pinkham, Charles A., assignor to G. F. Pinkham, Wollaston, Mass. Manifold sales-book	455,354	July 7	83	25	56	20
Pinkham, D'Orville L., Dover, N. H. Hand-rake	464,802	Dec. 8	1234	307	57	1379
Pinkham, Fred S., Lynn, Mass. Door-crape	466,054	Dec. 29	3302	843	57	1804
Pinkham, George F. (See Pinkham, Charles A., assignor.)						
Pinkham, George F. (See Pinkham, Horace A., assignor.)						
Pinkham, Horace A. (See Tirrell, Jacob P., assignor.)						
Pinkham, Horace A., Philadelphia, Pa., assignor to G. F. Pinkham, Wollaston, Mass. Electric gas-lighter	458,486	Aug. 25	2550	621	56	1036
Pinkham, Lucius E., Newton, Mass. Hoisting apparatus	461,142	Oct. 13	904	234	57	181
Pinolet, Louis M., Brooklyn, N. Y. Electric annunciator system	453,416	June 2	380	98, 99	55	1218
Piper, Edwin J. (See Carleton, Andrew J., assignor.)						
Piper, Edwin J., Springfield, Mass. Paper-ruling machine	461,642	Oct. 20	1790	441	57	356
Piper, Myron H., assignor of one-half to C. S. Bird, Walpole, Mass. Folding flower-pot	448,143	Mar. 10	1408	360	54	1395
Piper, Sylvester, <i>et al.</i> (See Coy, George E., assignor.)						
Pires, Manuel S., Centreville, Cal. Windmill	458,766	Sept. 1	327	79	56	1128
Pirkle, William J., Cumming, Ga. Seeding-machine	461,708	Oct. 20	1900	470	57	377
Pirrung, Frank E. and H. A., St. Paul, Minn. Feathering paddle-wheel	464,520	Dec. 8	798	195	57	1296
Pirrung, Hubert A. (See Pirrung, Frank E. and H. A.)						
Pirtle, James M., Ardeola, Mo. Pulverizing attachment for plows	461,846	Oct. 27	2124	523	57	428
Pitcher, Charles A. (See Brennan and Pitcher.)						
Pitcher, Henry A., Neillsville, Wis. Magazine-gun	452,192	May 12	1210	{ 306 307 }	55	810
Pitchford, John B., San Francisco, Cal. Water-wheel	460,758	Oct. 6	357	88	57	70

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Pitchford, John B., San Francisco, Cal. Water-wheel	460,815	Oct. 6	439	111	57	88
Pitezel, Benjamin F., Chicago, Ill. Receptacle for granular substances	460,181	Sept. 29	2577	643	56	1592
Pitkin, Albert J., Schenectady, N. Y. Compound engine	450,374	Apr. 14	1112	{ 272 273 }	55	219
Pitkin, Julian H., Ravenswood, and J. S. Lane, Oak Park, Ill. Exhaust-nozzle for locomotives	458,320	Aug. 25	2277	556	56	985
Pitkin, Norman T., Hartford, Conn. Steam-generator	452,388	May 19	1529	379	55	880
Pitkin, Stephen H., assignor to Webster, Camp & Lane Machine Company, Akron, Ohio. Mechanism for operating steam-engines	450,526	Apr. 14	1333	327	55	262
Pitman, Aaron, Matawan, N. J. Glass-blowing tube	444,160	Jan. 6	298	71	54	61
Pitman, John H., Fall River, Mass. Sharpener for lawn-mowers	459,479	Sept. 15	1472	370	56	1368
Pitman Manufacturing Company. (See Pepper and Davis, assignors.)						
Pitt, William R., New York, N. Y. Folding gate	444,765	Jan. 13	1235	321	54	250
Pittilla, James B. (See Pittilla, William H., assignor.)						
Pittilla, William H., Danbury, Conn. Hat-blocking and brim-pressing machine	462,585	Nov. 3	576	{ 140 141 }	57	662
Pittilla, William H., assignor to J. B. Pittilla, Danbury, Conn. Hat-blocking machine	450,422	Apr. 14	1188	289	55	233
Pittman, Reinhard W., Hartford, Conn. Envelope-machine	452,731	May 19	2077	523	55	984
Pitts Agricultural Works. (See Todd, Marquis J., assignor.)						
Pitts, Aurelius V. (See Pitts, Marcellus H. and A. V.)						
Pitts, David M., Opelika, Ala. Fertilizer-distributor	459,305	Sept. 8	1185	288	56	1304
Pitts, Ella, Palmer, Kans. Drill	460,027	Sept. 22	2330	584	56	1537
Pitts, Marcellus H. and A. V., Marseilles, Ill. Automatic swinging straw-stacker	455,355	July 7	86	26	56	21
Pittsburg Crushed Steel Company. (See Kann, William L., assignor.)						
Pittsburg Crushed Steel Company. (See Lindsey, Charles M., assignor.)						
Pittsburg Mop Wringer Company. (See Jarboe, Walter S., assignor.)						
Pittsburgh Brass Company. (See Hoerle, William M., assignor.)						
Pixton, Thomas R., Lancaster, Pa. Bell	451,770	May 5	504	124	55	674
Pizzuti, Joseph S. F., Columbus, Ohio. Musical instrument	452,193	May 12	1213	307	55	811
Pizzuti, Joseph S. F., Columbus, Ohio. Musical instrument	458,238	Aug. 25	2133	523	56	959
Place, Louis de, Angers, France. Apparatus for testing metal pieces	445,860	Feb. 3	576	140	54	624
Plain, Jared W., Toledo, Ohio. Urinal	444,074	Jan. 6	152	38	54	33
Planchon, Victor, Boulogne, France. Photographic film	448,364	Mar. 17	1803	455	54	1480
Plano Manufacturing Company. (See Carver, George H., assignor.)						
Plano Manufacturing Company. (See Hunt, George G., assignor.)						
Platschart, Isaac, Sodus, N. Y. Apple-slicer	452,034	May 12	923	236	55	760
Platt, Clark M., Waterbury, Conn. Button	464,988	Dec. 15	1535	387	57	1447
Platt, Clark M., assignor to Patent Button Company, Waterbury, Conn. Cloth-covered tack-head	465,289	Dec. 15	2041	521	57	1541
Platt, Corwin H., Cleveland, Ohio. Type-basket brush	464,626	Dec. 8	947	234	57	1326
Platt, Irving G., Waterbury, Conn. Rivet	446,466	Feb. 17	1588	390	54	841
Platt, Irving G., Waterbury, Conn. Rivet	449,698	Apr. 7	79	20	55	18
Platt, Irving G., Waterbury, Conn. Forming rivets	449,699	Apr. 7	80	20	55	18
Platt, Irving G., and F. R. White, Waterbury, Conn. Rivet and button attaching machine	450,828	Apr. 21	1836	{ 445 446 }	55	372
Platt, Jacob B., Augusta, Ga. Apparatus for warming and ventilating street-cars	458,982	Sept. 1	678	165	56	1198
Platt, James E., and W. H. Richardson, Oldham, England. Carding-engine	454,986	June 30	2821	718	55	1713
Platt, James F., Sterling, Ill. Seeding-machine	454,918	June 30	2690	689	55	1688
Platt, John, and T. Thorp, Salford, England. Apparatus for cleaning boiler-tubes	451,841	May 5	598	148	55	693
Platt, John, and T. Thorp, Salford, England. Apparatus for removing scale from tubes in steam-boilers	452,802	May 26	2194	550	55	1015
Platt, Oron S., Bridgeport, Conn. Insulated contact for electric switches	456,250	July 21	1503	399	56	304
Plaut, Joseph, Cincinnati, Ohio. Berth guard and ladder	451,516	May 5	107	27	55	600
Player, John, Topeka, Kans. Car-brake	446,569	Feb. 17	1747	430	54	871
Player, John, Topeka, Kans. Brake-shoe	446,570	Feb. 17	1747	430	54	872
Player, John, Topeka, Kans. Car-wheel	446,571	Feb. 17	1748	430	54	872
Player, John, Topeka, Kans. Exhaust-nozzle	449,825	Apr. 7	279	74	55	56
Player, John, Topeka, Kans. Smoke-consumer for locomotives	449,826	Apr. 7	280	74	55	56
Player, John, Topeka, Kans. Smoke-consumer	449,827	Apr. 7	282	75	55	56
Plecker, William J., Galesburg, Ill. Eaves-trough hanger	462,586	Nov. 3	578	141	57	662
Pleukharp, James, Columbus, Ohio. Machine for jointing staves	451,133	Apr. 28	2307	571	55	472
Pleukharp, James, Columbus, Ohio. Barrel-former	453,023	May 26	2553	645	55	1084
Pleukharp, James, Columbus, Ohio. Machine for forming and hooping barrels	454,764	June 23	2402	{ 616 617 }	55	1629
Pleukharp, James, Columbus, Ohio. Crozing and chamfering machine	454,765	June 23	2405	{ 617 618 }	55	1629
Pleukharp, James, Columbus, Ohio. Standard barrel-stave	459,646	Sept. 15	1758	442	56	1420
Plique, Anatole, Franklin, Tenn. Thill-coupling	452,236	May 12	1275	321	55	824
Plimpton & Co., Herbert M. (See Plimpton and Lewis, assignors.)						
Plimpton, Howard E., Norwood, and W. I. Lewis, Walpole, assignors to H. M. Plimpton & Co., Boston, Mass. Machine for gathering signatures	459,334	Sept. 8	1236	{ 303 304 }	56	1313
Plischke, Gerhard P., and H. Brueckel, Milwaukee, Wis. Clamp	447,526	Mar. 3	432	106	54	1199
Pluck, James, Utopia, Tex. Wheel	457,668	Aug. 11	1207	309	56	766
Plumb, William H., Ansonia, Conn. Garment-supporter	455,411	July 7	188	48	56	39
Plume & Atwood Manufacturing Company. (See Atwood and Tobey, assignors.)						
Plumly, Eugene K. (See Salisbury, George P., assignor.)						
Plummer, Annie H. (See Whittier, Phineas W., assignor.)						
Plummer, David S., Boston, Mass. Brick-machine	452,648	May 19	1947	488	55	958
Plummer, John E., Waterville, N. Y. Gage for sorting leather	448,586	Mar. 17	2138	536	54	1544
Plummer, John W., Somerville, Mass. Rand-trimmer	449,232	Mar. 31	3162	797	54	1755
Plummer, Stephen E., Whitman, assignor of one-third to E. G. Brown, Boston, Mass. Recutting-machine	451,433	Apr. 28	2786	{ 688 689 }	55	563
Plummer, Stephen E., Whitman, assignor of one-third to E. G. Brown, Boston, Mass. Recutting-machine	451,434	Apr. 28	2788	689	55	564
Plumridge, Jonathan, Jr., High Wycombe, and S. Jackson, Tetsworth, England. Band-saw guide	450,871	Apr. 21	1909	468	55	386
Plymouth Foundry Company. (See Walker and Harlow, assignors.)						
Pneumatic and Electric Tool Company. (See Drawbaugh, Daniel, assignor.)						
Pneumatic Gun Carriage and Power Company. (See Creecy, Charles E., assignor.)						
Pneumatic Gun Carriage and Power Company. (See Spiller, Harry A., assignor.)						
Pneumatic Gun Carriage and Power Company. (See Taylor, Fenner B., assignor.)						
Pneumatic Power and Railroad Gate Company. (See McDonald and Brent, assignors.)						
Pneumatic Tyre and Booth's Cycle Agency. (See Dunlop, John B., assignor.)						
Pocock, Francis A., Scranton, Pa. Machine for mining coal	444,116	Jan. 6	216	52, 53	54	44

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Pocock, Francis A., assignor of two-thirds to E. H. Lawall and R. J. Foster, Scranton, Pa. Insulator for electrical conductors for mines	448,838	Mar. 24	2555	641	54	1630
Pocock, Francis A., assignor of two-thirds to E. H. Lawall and R. J. Foster, Scranton, Pa. Electric-motor car	450,189	Apr. 14	792	200 201	55	161
Poe, George F., Milford, Ind. Ratchet-wrench	462,995	Nov. 10	1230	320	57	798
Poe, George, and C. Angus, assignors of one-half to J. R. Nangle and M. S. Simmons, Albany, N. Y. Weather-strip	456,058	July 14	1203	317	56	237
Poet, John, deceased, (A. C. Rice administrator,) assignor of one-half to L. C. Mitchell, Anderson, Ind. Plumb-level	453,794	June 9	973	253	55	1340
Pohl, Ernest O., Philadelphia, Pa. Squaring-shears	459,159	Sept. 8	966	235	56	1261
Pohl, Henry U., Saginaw, Mich. Chair	444,992	Jan. 20	1641	421	54	336
Pohlig, Firm of J. (See Otto, Theodor, assignor.)						
Pohlig, J. (See Ellingen, Wilhelm, assignor.)						
Pohlig, J. (See Otto, Theodor, assignor.)						
Poindexter, Martin J., Reading, Pa. Nail-extractor	457,925	Aug. 18	1643	430	56	858
Poindexter, Robert E. (See Kiler, Charles M., assignor.)						
Poindexter, Robert E. (See Kiler and Poindexter.)						
Poindexter, Robert E., Indianapolis, Ind. Fence-post base	445,198	Jan. 27	1968	509	54	409
Poindexter, Robert E., Indianapolis, Ind. Wire-tightener	462,411	Nov. 3	313	77, 78	57	610
Poindexter, Robert E., Indianapolis, Ind. Fence	462,412	Nov. 3	314	78	57	611
Pokorny, Joseph. (See Fischesser and Pokorny.)						
Polakoff, Charles, and R. Lange, Buffalo, N. Y. Combination furniture	449,430	Mar. 31	3529	888 889	54	1821
Poland, Lawrence N. P., Cincinnati, Ohio. Dynamo-electric machine	451,700	May 5	392	95	55	654
Poleschko, Arcadius, St. Petersburg, Russia. Electrical transformer	464,677	Dec. 8	1031	258	57	1341
Polk, Edward B. (See Frank, Samuel B., assignor.)						
Polk, Kindrick F., Cleburne, Tex. Washing-machine	449,700	Apr. 7	81	21	55	18
Pollard, Edward T. (See Ludington and Pollard.)						
Pollard, James M. (See Wiggins and Pollard.)						
Pollard, James M., East Troy, Wis. Windmill	454,664	June 23	2261	581	55	1599
Pollard, James M., assignor to himself, B. R. Codwise, Washington, D. C., and F. L. Kellogg, New York, N. Y. Explosive and making the same	463,769	Nov. 24	2471		57	1053
Pollard, Robert. (See Taylor, Horace H., assignor.)						
Pollard, Thomas P., Richmond, Va. Nut-lock	447,697	Mar. 3	673	168	54	1245
Polley, William, Rochester, assignor to himself, F. E. Rogers, C. F. Preston, New York, and J. T. Bender, Brooklyn, N. Y. Rotary sole-trimmer	446,013	Feb. 10	820	198	54	680
Polley, William, assignor of one-half to A. M. Duffy, Cortland, N. Y. Boiler-cleaner	457,749	Aug. 11	1347	349	56	797
Politt, William S., Walsenburg, Colo. Screen	454,526	June 23	2027	525	55	1558
Pollock, James, Wilkes-Barré, Pa. Pumping-engine	462,061	Oct. 27	2454	608	57	492
Pollock, James, Wilkes-Barré, Pa. Separator and screen	464,776	Dec. 8	1192	296	57	1370
Pollock, John A., Garrison's, N. Y. Acoustic alarm for oil-cans	445,608	Feb. 3	141	37	54	538
Pollock, Thomas M., Briar Hill, Ohio. Furnace hosh-plate	450,636	Apr. 21	1543	371	55	317
Pollock, Thomas M., Briar Hill, Ohio. Furnace hosh-plate. (Reissue)	11,209	Dec. 6	1449	364	57	1424
Pollok, James H., Glasgow, Scotland. Gold-chlorinating process	456,844	July 28	2486	653	56	497
Polst, Henry, <i>et al.</i> (See Ruff, August, assignor.)						
Pomeroy, Bennard H., New York, assignor to Pomeroy Machine Co., Brooklyn, N. Y. Drill and tap scale	447,475	Mar. 3	352	87	54	1184
Pomeroy, Henry N., assignor of one-half to E. G. Hering, Cross Plains, Wis. Car-axle	444,199	Jan. 27	1969	509	54	409
Pomeroy, Henry R., assignor of two-thirds to E. E. Stout, Indianapolis, Ind. Communiting seeds and spices	444,847	Jan. 20	1364	353	54	283
Pomeroy, Le Dru R., Syracuse, N. Y. Adjustable window-screen	444,409	Jan. 6	670	174	54	132
Pomeroy Machine Co. (See Pomeroy, Bennard H., assignor.)						
Pomeroy, Silas H., Pittsfield, Mass., and A. M. White, Waterbury, Conn., assignors to Speed Registering Company, Chicago, Ill. Register and recorder for revolving shafts	460,886	Oct. 6	543	136 137	57	107
Pond, Goldsberry H., Glens Falls, N. Y. Metal tie for railways	455,885	July 14	951	249	56	191
Pont, Alexandre de and S., Paris, France, assignors of two-thirds to H. L. and I. H. Storey, Lancaster, England. Manufacturing artificial ivory	444,775	Jan. 13	1248		54	252
Pont, Silvius de. (See Pont, Alexandre de and S.)						
Pontius, Andrew, Cincinnati, Ohio. Automatic door and lock for elevators	445,433	Jan. 27	2309	599	54	477
Ponzio, Giuseppe, and D. Robbiati, Milan, Italy. Method of and apparatus for the manufacture of buttons from horn, &c	465,884	Dec. 29	3005	767	57	1746
Pool, Anthony B., and J. J. Beals, Boston, Mass. Car-brake	446,981	Feb. 24	2410	600	54	1008
Pool, Anthony B., and J. J. Beals, Boston, Mass. Car-brake	458,407	Aug. 25	2427	591	56	1014
Pool, Anthony B., and J. J. Beals, Boston, Mass. Car-brake	464,038	Dec. 1	46	13	57	1145
Pool, Munson G., assignor of one-half to J. E. Jones, Theresa, N. Y. Screw-propeller	449,862	Apr. 7	330	84	55	66
Pool, William A., Statesville, N. C. Carpet-stretcher	448,992	Mar. 24	2786	705	54	1675
Poole, Cecil P., Lynchburg, Va. Incandescent-electric-lamp socket	461,898	Oct. 27	2206	544	57	445
Poole, Charles H. (See Smith, De Wane B., assignor.)						
Poole, Edward, Fordyce, Ark. Spool-rack for sewing-machines	444,766	Jan. 13	1237	321	54	250
Poole, Edward, assignor of two-thirds to D. L. Collins and F. E. Parker, Fordyce, Ark. Window-shade	464,989	Dec. 15	1536	387	57	1448
Poole, Luther M., Liberty Hill, Tex. Cotton-chopper	461,931	Oct. 27	2272	562	57	458
Pooley, Charles A. (See Flohr, Otto, assignor.)						
Pooley, Charles A., assignor to J. F. Gluck, Buffalo, N. Y. Car-coupling	462,413	Nov. 3	315	78	57	611
Pooley, Edward F. and F. D., Media, Pa. Desk	458,487	Aug. 25	2552	622	56	1037
Pooley, Frank D. (See Pooley, Edward F. and F. D.)						
Pooley, James B., Clementon, N. J. Tête-à-tête rocking-chair	464,142	Dec. 1	202	48	57	1175
Poor, Joseph H. (See Jones, Albert F., assignor.)						
Pope, Arthur L. (See Pope, Samuel W. and A. L.)						
Pope, Charles E. (See Pope, Edward J. and C. E.)						
Pope, Charles H. (See Moore and Pope.)						
Pope, Edward J. and C. E., Eau Claire, Wis. Machine for slitting and winding paper, &c	451,278	Apr. 28	2561	631	55	521
Pope, Edwin, Quebec, Canada. Printing-telegraph	451,951	May 12	781	198 199	55	734
Pope, Franklin L. (See Shaw, Henry F. and G. F., assignors.)						
Pope, Joseph H., assignor to American Heeling Machine Company, Brockton, Mass. Heel-nailing machine	446,885	Feb. 24	2246	559 560	54	978
Pope Manufacturing Company. (See Becker, George, assignor.)						
Pope Manufacturing Company. (See Becker, John, assignor.)						
Pope Manufacturing Company. (See Becker, John and G., assignors.)						
Pope Manufacturing Company. (See Mariner, Abbott L., assignor.)						
Pope Manufacturing Company. (See Robinson, John T., assignor.)						
Pope Manufacturing Company. (See Towle, George C., assignor.)						
Pope, Samuel, Philadelphia, Pa. Heel-trimming machine	465,290	Dec. 15	2042	522	57	1542

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Pope, Samuel W. and A. L., St. Louis, Mo. Skeleton shelving.....	464,723	Dec. 8	1115	{ 276 277	{ 57	1356
Pope, William R., New York, N. Y. Fluid-vending machine.....	450,843	Apr. 21	1860	453	55	376
Popp Compressed Air and Electric Power Company. (See Popp, Victor, assignor.)						
Popp, Victor, Paris, France. Means for utilizing compressed air for the production of mechanical power.....	456,594	July 28	2059	545	56	418
Popp, Victor, Paris, France. Utilizing compressed air for producing motive energy.....	456,595	July 28	2061	545	56	418
Popp, Victor, Paris, France, assignor to Popp Compressed Air and Electric Power Company, Limited. Automatic separator for compressed-air systems.....	446,014	Feb. 10	821	198	54	680
Popp, Victor, Paris, France, assignor to Popp Compressed Air and Electric Power Company, Limited. Regulation of dynamos driven by compressed air.....	456,593	July 28	2058	545	56	417
Popp, Victor, Paris, France, assignor to Internationale Druckluft & Electricitäts-Gesellschaft, Berlin, Germany. Relief-valve.....	455,292	June 30	3364	848	55	1818
Popper, Isidor, New York, N. Y. Canopy-frame.....	459,647	Sept. 15	1759	442	56	1421
Port, David and S. R., Dublin, Ind. Straight rail fence.....	447,201	Feb. 24	2800	692	54	1081
Port, Samuel R. (See Port, David and S. R.)						
Porteous, James. (See Smith and Hopkins, assignors.)						
Porteous, James, Fresno, Cal. Raisin and fig press.....	453,293	June 2	174	48	55	1180
Porteous, James, Fresno, Cal. Cultivator.....	461,172	Oct. 13	960	247	57	191
Porteous, James, Fresno, Cal. Vineyard-brush burner.....	466,256	Dec. 29	3608	924	57	1862
Porteous, William, Elmwood Place, Ohio. Combined reaming and tapping machine.....	457,916	Aug. 18	1626	{ 424 425 426 427	{ 56	855
Porteous, William, Elmwood Place, Ohio. Reaming and tapping machine.....	463,337	Nov. 17	1775	{ 464 465 466	{ 57	911
Porter, Benjamin, Jackson, Mich. Street stop-cock box.....	444,015	Jan. 6	50	14	54	13
Porter, Charles, Fort Worth, Tex. Bracket.....	449,134	Mar. 31	3016	763	54	1728
Porter, Charles, Dover, N. H. Oil-filter.....	459,059	Sept. 8	876	211	56	1243
Porter, Charles E., et al. (See Pugh, Cortez V., assignor.)						
Porter, Cyrus H. (See Johnson and Porter.)						
Porter, Daniel R., assignor of one-half to W. F. Goldthwait, Chelsea, Mass. Wrench.....	450,681	Apr. 21	1610	387	55	331
Porter, Edward C., New Haven, Conn. Process of and apparatus for straightening carriage corner-irons.....	446,950	Feb. 24	2358	586	54	998
Porter, Edwards W. (See Hargreaves, Scranton, and Porter.)						
Porter, Edwin M. (See Balsley and Porter.)						
Porter, Elbert B., Penn Yan, N. Y. Fishing-reel.....	446,467	Feb. 17	1590	391	54	844
Porter, Eugene A., Bowling Green, Ky. Feed cutter and crusher.....	454,790	June 23	2442	628	55	1636
Porter, George J., Medford, Mass. Car-body.....	461,173	Oct. 13	962	248	57	191
Porter, George W., Gambier, Ohio. Fence-post support.....	461,709	Oct. 20	1902	470	57	377
Porter, Harry H., New York, N. Y. Electric motor.....	455,765	July 14	760	200	56	155
Porter, Henry K., Boston, Mass. Cutter for wires.....	444,541	Jan. 13	883	229	54	184
Porter, J. M., et al. (See Jackson, William, assignor.)						
Porter, James H., Hartford, Conn. Mucilage holder and spreader.....	449,233	Mar. 31	3163	797	54	1755
Porter, Joseph F. (See Bickford, John H., assignor.)						
Porter, Joseph F., et al. (See Waring, Edward M., assignor.)						
Porter & Kilvert et al. (See Morrell, Robert, assignor.)						
Porter, Lansing, Auburn, N. Y. Hinge.....	447,971	Mar. 10	1158	294	54	1343
Porter, Samuel, Denver, Colo. Boiler-furnace.....	444,984	Jan. 20	1630	418	54	334
Porter, Samuel W. (See Fox, James T., assignor.)						
Porter, Stephen. (See Angell and Porter.)						
Porter, Thomas W., Montclair, N. J., assignor to Patent Button Company, Waterbury, Conn. Tapered and pointed nail.....	464,144	Dec. 1	205	49	57	1175
Porter, Thomas W., Montclair, N. J., and J. B. Glover, Dubuque, Iowa, assignors to Patent Button Company, Waterbury, Conn. Button-setting machine.....	464,143	Dec. 1	203	48, 49	57	1175
Portis, Silas, assignor of two-thirds to T. N. Bennett and A. Taylor, Monrovia, Ind. Gate-worker.....	463,546	Nov. 17	2110	556	57	976
Portland Iron Works. (See Clarke, Harry T., assignor.)						
Portland Wind Engine Company. (See Jones, Byron, assignor.)						
Post, Henry A., Middletown, assignor of one-half to E. E. Hughes, Meriden, Conn. Fruit-jar holder.....	446,190	Feb. 10	1122	275	54	734
Post, Henry F., Paterson, N. J. Envelope.....	453,726	June 9	863	224	55	1319
Post, Paul W. (See Smith and Post.)						
Postage Stamp Service Machine Company. (See Whiteside, Sidney B., assignor.)						
Postel, Henry J. (See Gates, Lewis A., assignor.)						
Postel, Henry J. (See Howe and Gates, assignors.)						
Posz, Michael, Shelbyville, Ind. Combined desk and toilet-case.....	464,521	Dec. 8	799	195	57	1297
Poterie, George, Allegheny, Pa. Apparatus for producing coal-tar and coke.....	453,386	June 2	316	82, 83	55	1207
Potter, Frank N., Elkhart, Ind. Folding bed.....	451,842	May 5	599	{ 148 149	{ 56	693
Potter, Gideon, Osceola, Ill. Animal-trap.....	461,710	Oct. 20	1902	{ 470 471	{ 57	378
Potter, Henry K., Somerville, Mass. Valve and nozzle for street-sprinklers, &c.....	456,538	July 21	1972	520	56	393
Potter, Robert B., Hillburn, N. Y. Railway-signal.....	464,990	Dec. 15	1537	388	57	1448
Potter, James. (See Hubbard and Potter.)						
Potter, James C., Pawtucket, R. I. Dust-trunk for cotton-cleaning apparatus.....	451,609	May 5	245	59	55	626
Potter, James E., Providence, assignor of one-half to P. A. Fuller, Johnston, R. I. Tool for the manufacture of watch-chain swivels.....	457,888	Aug. 18	1583	412	56	846
Potter, John A., Munhall, Pa. Casting.....	449,701	Apr. 7	83	21, 22	55	18
Potter, John A., Munhall, and J. A. Burns, Homestead, Pa. Crane.....	461,874	Oct. 27	2168	{ 534 535	{ 57	438
Potter, John K., Claysville, Pa. Cradle.....	463,707	Nov. 24	2386	625	57	1036
Potter, John S. (See Cartwright, David J., assignor.)						
Potter, John S. (See Keyes, Benjamin B., assignor.)						
Potter, John S., Newton, Mass. Electric cut-out.....	445,253	Jan. 27	2054	529	54	425
Potter, John S., Newton, and D. J. Cartwright, Boston, Mass.; said Cartwright assignor to said Potter. Electric-wire insulating-cleat.....	444,317	Jan. 6	529	137	54	106
Potter, Lizzie T., Hartford, Conn. Belt-fastener.....	461,531	Oct. 20	1617	395	57	324
Potter, Mark, Syracuse, N. Y. Faucet.....	464,689	Dec. 8	1056	263	57	1345
Potter, William, New York, N. Y. Scriber.....	450,892	Apr. 21	1937	475	55	391
Potter, William, New York, N. Y. Instrument for describing outlines of objects.....	459,648	Sept. 15	1760	443	56	1421
Potter, William H., Bayonne, N. J. Barrel-hooping machine.....	450,190	Apr. 14	794	201	55	161

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Potter, William H., assignor of one-half to A. Genereaux, Bayonne, N. J. Hoop-riveting machine	462,775	Nov. 10	878	230	57	729
Pottle, George F., Medford, Mass. Pipe-cutter	465,415	Dec. 15	2249	577	57	1581
Potts, John, <i>et al.</i> (See Paul, David S., assignor.)						
Potts, Robert. (See Jordan and Potts.)						
Poudroux, Flavien, Paris, France. Electric battery	457,430	Aug. 11	840	217	56	697
Poulin, Damase M., Boston, Mass. Smoking-pipe	447,792	Mar. 10	856	213	54	1287
Poupard, Frederick A. (See Jutson and Poupard.)						
Powell, Abram G., Philadelphia, Pa. Bicycle	452,649	May 19	1948	489	55	959
Powell, Ambrose, Medway, N. Y. Washing-machine	463,918	Nov. 24	2714	705	57	1098
Powell, Charles E. (See Clayton and Duncan, assignors.)						
Powell, Francis M., and W. H. Vickery, Hartwell, Ga. Tether	445,454	Jan. 27	2336	607	54	482
Powell, George M., Philadelphia, Pa. Valise	451,843	May 5	601	149	55	694
Powell, James, Avondale, Ohio. Lubricator	463,320	Nov. 17	1750	458 459	57	907
Powell, John R., Plymouth, Pa. Miner's squib	457,669	Aug. 11	1207	410	56	767
Powell, Joshua W., <i>et al.</i> (See Putnam, Theodore A. B., assignor.)						
Powell, Mary C., Parker, S. D. Stand for dish-pans or other vessels	460,832	Oct. 6	460	116	57	92
Powell, Silas F., Denver, Colo. Grass-receptacle	459,460	Sept. 15	1443	363	56	1362
Powell, William, Pen Argyl, Pa. Dinner-pail	453,659	June 9	758	196	55	1299
Powell, William H., assignor to D. P. Wollhaupter, Washington, D. C. Portable dry closet	445,513	Jan. 27	2422	632	54	497
Power, Thomas, Portland, N. D. Stove-drum and damper for the same	458,488	Aug. 25	2554	622	56	1037
Power, William H. (See Smith, Frank H., assignor.)						
Powers, Charles M., assignor of two-thirds to M. I. McCreight and N. L. Hoover, Du Bois, Pa. Combined canceling-stamp and file	456,429	July 21	1802	476	56	359
Powers, Henry, Cranbourne, Canada. Apparatus for separating asbestos from crushed rock	455,638	July 7	550	143	56	106
Powers, Nicholas R., Worcester, Mass. Snow-guard	459,876	Sept. 22	2116	531	56	1497
Powers, Richard M., Norwich, Conn. Scuttle-ladder	453,294	June 2	175	48	55	1181
Powers, Thomas F. (See Bush, James J., assignor.)						
Powers, Walter C., Fall River, Mass. Card-mounting machine	448,849	Mar. 24	2579	647 648	54	1634
Powerville Felt Roofing Company. (See Smith, Joseph A., assignor.)						
Poydenot, Henry, Bayonne, France. Bating-powder	455,851	July 14	899	-----	56	181
Poyner, William, Cleveland, Ohio. Combined dinner-pail and lunch-basket	450,527	Apr. 14	1334	328	55	263
Pragnell, George E., Brooklyn, N. Y. Rheotome	450,319	Apr. 14	1016	251	55	202
Prahar, Louis B., Brooklyn, N. Y. Tablet ornament	447,622	Mar. 3	573	142	54	1225
Prall, William E., Washington, D. C. Condenser	457,791	Aug. 18	1413	366	56	816
Prall, William E., Washington, D. C. Street-car motor	457,792	Aug. 18	1415	367	56	816
Prall, William E., Washington, D. C. Street-car motor	457,793	Aug. 18	1416	367 368	56	817
Prall, William E., Washington, D. C. Traction device	457,794	Aug. 18	1419	368	56	817
Prall, William E. and W. E. Jr., Washington, D. C. said W. E. Prall, Jr., assignor to said William E. Prall. Method of and apparatus for propelling street-cars	449,588	Mar. 31	3766	945	54	1866
Prange, Leo, Brooklyn, N. Y. Die for button-machines	450,893	Apr. 21	1938	475	55	391
Prangey, Louis E. A., Paris, France. Apparatus for the manufacture of sugar	452,062	May 12	984	250 251	55	770
Prangey, Louis E. A., Paris, France. Manufacture of refined sugar	452,063	May 12	988	251	55	770
Prater, Josiah J., Newtonia, Mo. Draft-equalizer	462,734	Nov. 10	812	212	57	717
Prater, Lander C. (See Crumbaugh and Prater.)						
Prater, Lander C., <i>et al.</i> (See Martin, Louis F., assignor.)						
Prather, Samuel E., <i>et al.</i> (See Sattley, Marshall, assignor.)						
Prather, Samuel E., and L. H. Bohn, Allegheny, Pa. Gas-burner	451,517	May 5	107	27	55	600
Pratsch, John, assignor of one-half to F. S. Ideson, Oshkosh, Wis. Dust-collector	460,061	Sept. 22	2390	597	56	1548
Pratt & Cady Company. (See Pratt, Rufus N., assignor.)						
Pratt, Charles L., Minneapolis, Minn. Refrigerator cigar-case	455,412	July 7	189	49	56	39
Pratt, Charles R. (See Sprague and Pratt.)						
Pratt, Charles R., New York, N. Y. Brake and starter for machinery	444,102	Jan. 6	192	47	54	40
Pratt, Charles R., New York, N. Y. Elevator	448,788	Mar. 24	2484	621 622 623 627	54	1617
Pratt, Charles R., New York, N. Y. Elevator	450,252	Apr. 14	915	226 227	55	182
Pratt, Charles R., New York, N. Y. Controlling mechanism	459,090	Sept. 8	848	205	56	1236
Pratt, Charles T., New Hartford, N. Y. Drill-chuck	449,135	Mar. 31	3017	763	54	1728
Pratt, Charles T., assignor to Pratt Chuck Company, Clayville, N. Y. Drill-chuck	455,490	July 7	300	76, 77	56	61
Pratt, Charles T., assignor to Pratt Chuck Company, Clayville, N. Y. Drill-chuck	455,689	July 7	630	167	56	122
Pratt, Charles T., assignor to Pratt Chuck Company, Clayville, N. Y. Drill-chuck	462,879	Nov. 10	1051	273	57	763
Pratt Chuck Company. (See Pratt, Charles T., assignor.)						
Pratt, Densmore, East Aurora, N. Y. Insecticide-distributor	455,463	July 7	258	65	56	52
Pratt, Edward, Uxbridge, county of Middlesex, England. Road or field roller	444,198	Jan. 6	359	89	54	72
Pratt, Edwin H., Warsaw, Va. Device for sculling boats	464,715	Dec. 8	1104	273	57	1354
Pratt, Frederick W. (See Bond, Nathan O., assignor.)						
Pratt, Henry C., Canandaigua, N. Y. Fence	456,637	July 28	2135	565	56	432
Pratt, John, Chatham, Canada. Excelsior-cutting machine	463,200	Nov. 17	1561	406 407	57	870
Pratt & Letchworth. (See Crosby, George S., assignor.)						
Pratt & Letchworth. (See Wiedrich, Charles L., assignor.)						
Pratt, Ransom D., assignor of two-thirds to J. P. Wood and H. J. Willard, Marlborough, Mass. Electric switch	448,365	Mar. 17	1804	455	54	1480
Pratt, Richard W. (See Farwell, George A., assignor.)						
Pratt, Rorello F., Boston, Mass. Saw-jointer	444,848	Jan. 20	1365	353	54	283
Pratt, Rufus N., assignor to Pratt & Cady Company, Hartford, Conn. Cock	461,084	Oct. 13	832	215	57	167
Pratt & Whitney Company. (See Cooley, Charles H., assignor.)						
Pratt & Whitney Company. (See Cooley and Richards, assignors.)						
Pratt & Whitney Company. (See Richards, Francis H., assignor.)						
Pratt & Whitney Company. (See Sponsel, Charles W., assignor.)						
Prehle, Josiah H., <i>et al.</i> (See Lovett, Eliphalet R., assignor.)						
Preiss, Albert, Norwood, South Australia. Railway-joint	448,257	Mar. 17	1612	411	54	1443
Prendergast, James, Le Roy, N. Y. Game apparatus	452,194	May 12	1214	307	55	811
Prendergast, James and J. F., St. Paul, Minn. Grease-trap for sinks	454,665	June 23	2262	581	55	1599
Prendergast, John F. (See Prendergast, James and J. F.)						
Prentice, Adelbert C., and C. M. Fuller, South Byron, N. Y. Potato-digger	456,430	July 21	1803	476 477	56	360
Prentice, Albert D., New York, N. Y. Machine for seaming tubes	456,059	July 14	1204	317	56	237

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Prentice, George G., Bridgeport, Conn., assignor to Davidson Writing Machine Company, New York, N. Y. Type-writing machine.....	456,339	July 21	1641	434	56	331
Prentice, George W., Providence, R. I. Button-fastener.....	451,070	Apr. 28	2208	546	55	452
Prentice, Jefferson M., San Francisco, Cal. Type-writing machine.....	464,892	Dec. 8	1357	341	57	1403
Prentiss, Guy C., <i>et al.</i> (See Holway, Nymphus B., assignor.).....						
Prentiss, Henry S., New York, N. Y. Clock-case.....	450,538	Apr. 14	1334	328	55	263
Prentiss, Henry S., Elizabeth, N. J. Supplemental pendulum-bob.....	450,529	Apr. 14	1335	328	55	263
Prentiss, Henry S., Elizabeth, N. J. Clock-case.....	450,530	Apr. 14	1336	329	55	263
Prentiss, Henry S., Elizabeth, N. J. Electric transmitting-clock.....	452,955	May 26	2444	616 617	55	1063
Prentiss, Henry S., Elizabeth, N. J. Synchronizer for electric clocks.....	452,956	May 26	2446	617 618	55	1064
Prentiss, Henry S., Elizabeth, N. J. Calendar.....	458,490	Aug. 25	2557	623	56	1038
Presbrey, Charles H., Sterling, Ill. Chain-pump.....	461,045	Oct. 13	777	199	57	157
Prescott, Charles, and M. H. Bennett, Fairmount, Nebr. Sand-screen.....	447,162	Feb. 24	2738	678	54	1068
Prescott, Edwin, Arlington, Mass. Jack.....	444,849	Jan. 20	1365	353	54	283
Prescott, Edwin, Arlington, Mass. Stanchion.....	465,200	Dec. 15	1899	482	57	1515
Prescott, Mary T., Somerville, Mass. Wall-protector.....	456,775	July 28	2374	624	56	477
Prescott, Samuel A., Wilkinsonville, Mass. Picker for rags and waste.....	444,672	Jan. 13	1083	280 281	54	222
Prescott, Samuel A., Wilkinsonville, assignor of nine-fortieths to A. R. Wells, Worcester, Mass. Holdback for carriages.....	465,301	Dec. 15	1899	482	57	1515
Prest, John E., Whitinsville, Mass. Flat-supporting device for carding-machines.....	446,015	Feb. 10	822	199	54	681
Prest, John E., assignor to Whitin Machine Works, Whitinsville, Mass. Clutch for carding-machines.....	449,087	Mar. 24	2934	743	54	1703
Prest, John E., assignor to Whitin Machine Works, Whitinsville, Mass. Carding-engine.....	449,088	Mar. 24	2935	743	54	1704
Preston, Albert F., Lynn, Mass., assignor to Preston Machine Company, Portland, Me. Machine for stretching uppers of boots or shoes.....	455,024	June 30	2892	735 736	55	1727
Preston, Charles A., Cambridge, assignor of three-fourths to G. W. Pierce, trustee, Boston, Mass. Passenger-car.....	446,554	Feb. 17	1725	422	54	867
Preston, Charles F., <i>et al.</i> (See Polley, William, assignor.).....						
Preston, Charles J., Piqua, Kans. Wire-reel.....	464,082	Dec. 1	115	28, 29	57	1159
Preston, Frank W., assignor to J. Preston, New Ipswich, N. H. Frame for holding blocks for educational purposes.....	456,708	July 28	2253	596	56	455
Preston, Henry G., Brooklyn, N. Y. Fly-book.....	461,921	Oct. 27	2256	558	57	455
Preston, James, New York, N. Y. Drawer-pull.....	461,711	Oct. 20	1904	471	57	378
Preston, James B., Darlington, assignor of one-half to J. S. Marshall and F. Cotton, Sydney, New South Wales. Lathe.....	444,799	Jan. 13	1278	331	54	257
Preston, John. (See Preston, Frank W., assignor.).....						
Preston, Leonidas A., Cheapside, Tex. Insect-powder distributor.....	446,626	Feb. 17	1824	451	54	886
Preston, Lindley F., Des Moines, Iowa. Pillow-sham holder.....	463,647	Nov. 24	2291	602	57	1019
Preston Machine Company. (See Peck, Frederick A. and I. F., assignors.).....						
Preston Machine Company. (See Preston, Albert F., assignor.).....						
Preston, Othniel, Hornellsville, N. Y. Wire-fence rail.....	465,028	Dec. 15	1614	411	57	1463
Preston, William C., assignor of one-half to R. A. Bright, Providence, R. I. Coupling for electric conductors.....	465,202	Dec. 15	1901	482	57	1515
Prevost, Hector, <i>et al.</i> (See Meadowcroft, John R., assignor.).....						
Priault, John A., Rochester, N. Y. Door-spring.....	459,306	Sept. 8	1186	288	56	1304
Pribnow, John F., Interior, Mich. Device for shaping swaged saw-teeth.....	463,547	Nov. 17	2112	556	57	976
Price, Benjamin L., Denver, Colo. Temple for spectacle-frames.....	444,505	Jan. 13	832	216	54	174
Price, C. W., <i>et al.</i> (See Flowers, Malon L., assignor.).....						
Price, Fred. A., Jamestown, N. Y. Clothes-drier.....	464,762	Dec. 8	1173	292	57	1367
Price, George M., Rutland, Ohio. Wash-board.....	451,844	May 5	602	150	55	694
Price, George W. (See Hooper, Pillsings, and Price.).....						
Price, George W., assignor, by mesne assignments, to Eureka Box Company, Baltimore, Md. Coin-box.....	464,464	Dec. 1	698	171	57	1268
Price, Henry W. (See Haegg, August, assignor.).....						
Price, Henry W. (See Winlund and McSherry, assignors.).....						
Price, Henry W., Rockford, Ill. Catcher's glove.....	461,847	Oct. 27	2125	523 524	57	429
Price, James M., Philadelphia, Pa. Tramway.....	462,063	Oct. 27	2456	609	57	493
Price, James M., Philadelphia, Pa. Rolling-mill.....	465,977	Dec. 29	3152	807 808	57	1775
Price, James M., Philadelphia, Pa., assignor to Price Railway Appliance Company, of Pennsylvania. Rolling-mill.....	448,073	Mar. 10	1307	334 335	54	1374
Price, James M., Philadelphia, Pa., assignor to Price Railway Appliance Company, of Pennsylvania. Metallic cross-tie.....	462,062	Oct. 27	2455	608	57	492
Price, John D., assignor of one-third to T. H. Price, Pueblo, Colo. Metallic packing for pistons.....	458,130	Aug. 18	1956	508	56	919
Price, John E., Denver, Colo. Electric conduit.....	453,733	June 9	872	226	55	1321
Price, John W., London, England. Automatic extinguisher for lamps.....	465,946	Dec. 29	3098	793	57	1764
Price, Joseph, administrator. (See Huyett, Daniel D.).....						
Price, Joseph C. (See Chable and Roberts, assignors.).....						
Price Railway Appliance Company. (See Price, James M., assignor.).....						
Price, Raymond H., Providence, R. I. Device for trimming finger-nails.....	450,703	Apr. 21	1644	394	55	336
Price, Raymond H., Providence, R. I. Automatic fire-extinguisher.....	460,182	Sept. 29	2580	643	56	1592
Price, Sarah M., and J. F. Klaiss, Bloomville, Ohio. Clothes-drier.....	465,885	Dec. 29	3007	767	57	1747
Price, Sim. T. (See Wise, Benjamin F., assignor.).....						
Price, Thomas, Baltimore, Md. Ventilator for lighterage-scows.....	463,816	Nov. 24	2537	662	57	1066
Price, Thomas H. (See Price, John D., assignor.).....						
Price, Thomas J., Danville, Pa. Feeding device for skelp-mills, &c.....	450,423	Apr. 14	1189	290	55	233
Price, William C., Woodburn, Oreg. Horseshoe-gage.....	448,366	Mar. 17	1805	455	54	1480
Price, William E. (See Randal and Price.).....						
Priday, Henry, Houston, Tex. Fence or gate.....	444,960	Jan. 20	1599	408	54	327
Pridham, Theodore, Petersham, near Sydney, New South Wales. Coating for timber, &c.....	453,821	June 9	1004	.....	55	1346
Pridmore, Henry E., Chicago, Ill., assignor to McCormick Harvesting Machine Company, Draft-equalizer.....	463,776	Nov. 24	2479	647	57	1054
Prier, Anton, Kansas City, Kans. Torch-lamp for firemen and patrolmen.....	444,767	Jan. 13	1238	321	54	250
Priest, Augustus F., West Superior, Wis. Railway-track cleaner.....	455,724	July 7	695	182 183	56	134
Priest, Joseph K., Nashua, N. H. Hair-clipper.....	445,081	Jan. 20	1772	457	54	362
Priest, William. (See Lloyd and Priest.).....						
Priester, Charles H., and C. Schütz, assignors to B. P. S. Sewing Machine Company, Philadelphia, Pa. Felling-guide for sewing-machines.....	458,428	Aug. 25	2456	597	56	1020

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Priestly, John H., Meriden, Iowa, assignor, by mesne assignments, of one-half to J. Jeffery, Sr. Car-coupling.	449,805	Apr. 7	250	63	55	50
Priestley, John W., Philadelphia, Pa. Carpet.	446,290	Feb. 10	1302	318	54	770
Prieto, Demetrio, deceased; J. I. Rodriguez, Washington, D. C., administrator. Machine for disintegrating fibrous plants.	446,791	Feb. 17	2075	517 518	54	936
Primrose, I. P., et al. (See Baker, Henry B., assignor.)						
Prince, Samuel E., Jr., Reading, Pa. Muffler.	452,020	May 12	895	230	55	755
Prince, Samuel F., Jr., Reading, Pa. Compound engine.	463,450	Nov. 17	1954	510	57	946
Pringle, Eugene, Gloversville, N. Y., assignor to M. D. Shipman and C. E. Bradt, De Kalb, Ill. Glove-fastening.	445,820	Feb. 3	516	124	54	612
Pringle, Eugene, Gloversville, N. Y., assignor to M. D. Shipman and C. E. Bradt, De Kalb, Ill. Separable button.	447,346	Mar. 3	108	29	54	1138
Pringle, Eugene, Gloversville, N. Y., assignor to M. D. Shipman and C. E. Bradt, De Kalb, Ill. Separable button.	447,347	Mar. 3	110	30	54	1139
Pringle, Eugene, Gloversville, N. Y., assignor to M. D. Shipman and C. E. Bradt, De Kalb, Ill. Separable button.	447,348	Mar. 3	112	30	54	1139
Pringle, Eugene, Gloversville, N. Y., assignor to M. D. Shipman and C. E. Bradt, De Kalb, Ill. Separable button.	447,349	Mar. 3	114	30	54	1139
Prior, John T., Prior's Station, Ga. Fish-hook.	456,776	July 28	2375	624	56	477
Pritchard, Edward D., New York, N. Y. Attachment for billiard-tables.	453,208	June 2	40	12	55	1156
Pritchard, Thomas W., assignor to Steele & Johnson Manufacturing Company, Waterbury, Conn. Shade or globe holder.	449,171	Mar. 31	3066	775	54	1737
Pritschan, Arthur F., Denver, Colo. Nut-lock.	447,738	Mar. 3	738	185	54	1257
Probert, Hubert F., Three Rivers, Mich. Car-truck.	446,392	Feb. 10	1456	357	54	802
Procter, George G., et al. (See Shaw, George F., assignor.)						
Proctor, Charles W., Lake Forest, Ill. Measuring-vessel.	450,494	Apr. 14	1291	316	55	254
Proctor, Charles W., Lake Forest, Ill. Oil-can and lamp-filler.	453,913	June 9	1120	293	55	1369
Proctor, Charles W., Lake Forest, Ill. Measuring-tank.	463,919	Nov. 24	2715	705	57	1098
Proctor, David R., Chicago, Ill., assignor to Self-Locking Anti-Tack Freight Car Label Company, of Illinois. Self-locking freight-car-label holder.	457,031	Aug. 4	151	36	56	562
Proctor, Harry H., and A. C. Mailer, De Pere, Wis. Printer's galley-lock.	445,901	Feb. 3	632	155	54	636
Proctor, James, Burnley, England. Mechanical stoker for steam-boilers.	454,379	June 16	1798	469 470	55	1506
Proctor, Josiah K., and W. B. Keefer, Philadelphia, Pa. Dyeing-vat.	446,572	Feb. 17	1749	430	54	872
Proctor, Ninian, C. E. Fraser, H. M. Carter, Leeds, and A. Middleton, Ben Rhydding, England. Machine for the manufacture of bricks and briquets.	449,089	Mar. 24	2936	744	54	1704
Procnunier, Frank G., assignor to himself and E. Hamilton, Chicago, Ill. Steam-trap.	456,519	July 21	1941	512	56	387
Proks, Karel, Prague, Austria-Hungary. Filter for sirups and juices in sugar-works.	449,271	Mar. 31	3224	814	54	1766
Promis, Eugene. (See Spahmer, Charles, assignor.)						
Promis, Eugene, Philadelphia, Pa. Cigar-holder.	461,592	Oct. 20	1711	418	57	342
Propst, George. (See Steinko and Propst.)						
Prosch, Louis, Jr., Brooklyn, N. Y. Camera-shutter.	447,902	Mar. 10	1037	260	54	1321
Prosser, Treat T., and C. H. Wilder, assignors to C. H. Wilder, Boston, Mass., and L. A. Wilder, Chicago, Ill. Apparatus for manufacturing gas.	461,982	Oct. 27	2342	581	57	471
Prosser, Treat T., and C. H. Wilder, assignors to C. H. Wilder, Boston, Mass., and L. A. Wilder, Chicago, Ill. Manufacture of gas.	462,161	Oct. 27	2609	650	57	522
Prouty, Chester, Big Run, Pa. Manufacturing saws.	461,509	Oct. 20	1585	388	57	319
Prouty, Merrick F., et al. (See Kube, Fred, assignor.)						
Prouty, William H., Worthville, N. Y. Saw-mill dog.	450,035	Apr. 7	575	143	55	111
Provost, Peter, Minneapolis, Minn. Grain-scouring machine.	457,795	Aug. 18	1420	368 369	56	817
Prowse, George R., Montreal, Canada. Calcium-light apparatus.	463,870	Nov. 24	2636	687 688	57	1084
Prunty, John E., Baltimore, Md., assignor to Greene & Prunty. Fire-extinguishing apparatus.	447,476	Mar. 3	353	88	54	1184
Pruyn, Henry S., Hoosick Falls, N. Y. Electric railway.	465,886	Dec. 29	3008	767	57	1747
Prybil, Paul. (See Mackintosh, Edward D., assignor.)						
Prybil, Paul, New York, N. Y. Machine for drilling to pattern.	447,014	Feb. 24	2462	613	54	1017
Prybil, Paul, New York, N. Y. Saw-guide.	465,631	Dec. 22	2607	662	57	1659
Pryor, Samuel M., New Castle, Ky. Frame for moving and harvesting machines.	462,996	Nov. 10	1232	320 321	57	798
Puccini, Reggolo, et al. (See Rowland, Henry A., assignor.)						
Puckett, Florence N., Whitesborough, Tex. Confagration-arrester.	444,961	Jan. 20	1599	408	54	327
Puckett, William J., Denver, Colo. Envelope-opener.	459,461	Sept. 15	1446	363	56	1363
Pudan, Oliver C., Pittsburg, Pa. Fluid-meter.	461,799	Oct. 20	1749	505 506	57	405
Pudan, Oliver C., assignor of one-half to G. W. Simonds, Pittsburg, Pa. Fluid-meter.	461,619	Oct. 20	1752	431 432	57	349
Puetz, Tillman, Jr., St. Louis, Mo. Mechanical movement.	444,016	Jan. 6	51	14	54	13
Puffer, Alvin D., Medford, Mass., assignor to American Soda Fountain Company, Jersey City, N. J. Soda-water fountain.	465,049	Dec. 15	1642	418	57	1467
Pugh, Cortez V., assignor of five-sixths to D. L. Caldwell, E. Robinson, J. Farrell, J. T. McCune, and C. E. Porter, Bowling Green, Mo. Meat-cutter.	457,212	Aug. 4	440	115	56	615
Pugh, Frank E. (See Mendenhall and Pugh.)						
Pugh, Robert, Casselton, N. D. Heating-drum.	459,413	Sept. 15	1374	344	56	1349
Pugh, William H. (See Emerson, Richard, assignor.)						
Pugh, William J., Muscatine, Iowa. Wrench.	446,291	Feb. 10	1303	318	54	770
Pugsley, Abraham, Jamestown, R. I. Toy.	450,495	Apr. 14	1292	316	55	254
Pullen, George. (See Roberts and Pullen.)						
Pulliam, Luther, assignor to O. Pulliam and W. H. Weller, St. Louis, Mo. Bridge.	457,291	Aug. 4	575	152 153	56	640
Pulliam, Oswald, et al. (See Pulliam, Luther, assignor.)						
Pulling, James G. (See Royce and Tufts, assignors.)						
Pullman, Harry B., Cambridge, Ohio, assignor of one-half to J. Wolstencroft, Philadelphia, Pa. Tapping device.	461,800	Oct. 20	2053	506	57	406
Pullman, Herbert S., assignor of one-half to G. H. Wilson, Meriden, Conn. Shoe-fastening.	452,851	May 26	2267	509	55	1029
Pullman, Herbert S., assignor of one-half to S. W. Kent, Meriden, Conn. Supplemental horseshoe.	455,690	July 7	631	167	56	122
Pullman Sash Balance Company. (See McArthur, James, assignor.)						
Pullman's Palace Car Company. (See Bushman, Gustav C., assignor.)						
Pullman's Palace Car Company. (See Hoffman, John W., assignor.)						
Pullman's Palace Car Company. (See Sessions, Henry H., assignor.)						
Pulvermacher, Albert, Sonneberg, Germany. Doll.	447,034	Feb. 24	2503	622	54	1025

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Pumyea, Edwin A., Jersey City, N. J. Sash-fastener.....	466,184	Dec. 29	3497	893	57	1842
Pungs, William A., Detroit, Mich. Brake-beam.....	444,017	Jan. 6	52	15	54	13
Punténey, Archibald, and E. C. Sooy, Kansas City, Mo. Hay-loader.....	456,237	July 21	1482	{ 394 395 }	56	300
Pupke, Eberhard L., <i>et al.</i> (See Egge, Frederick, assignor.)						
Purcell, Thomas W. (See Craig and Purcell.)						
Purdie, Thomas S., Syracuse, N. Y. Ventilating apparatus.....	455,006	June 30	2868	729	55	1722
Purdy, Albert L., assignor to J. Thornton and H. G. Dobbins, Wellsville, N. Y. Bill-file.....	461,046	Oct. 13	778	199	57	157
Purdy, Charles G., Brooklyn, N. Y. Antiseptic air-vent and overflow for filters.....	448,671	Mar. 24	2295	576	54	1580
Purdy, Charles G., Brooklyn, N. Y. Filter.....	454,766	June 23	2405	618	55	1629
Purdy, Oscar K., Lynn, Mass., assignor to Tripp Giant Leveller Company, Portland, Me. Jack for sole-leveling machines.....	461,392	Oct. 13	1330	{ 335 336 }	57	265
Purdy, Walter O. (See Pender and Purdy.)						
Purdy, Zachariah V., Vienna, Va. Machine for making horseshoes.....	450,375	Apr. 14	1116	273	55	219
Purdy, Zachariah V., Vienna, Va. Rolls for shaping and perforating iron.....	453,161	May 26	2781	699	55	1127
Purdy, Zachariah V., Vienna, assignor to W. B. Dodge, Fairfax county, Va. Mole-ditcher.....	457,959	Dec. 15	2250	577	57	1581
Purefoy, Addison F., Wake Forest, N. C. Spring-bed bottom.....	458,067	Aug. 18	1863	485	56	901
Purinton, J. J. (See Pepin, Frank, assignor.)						
Pursell, Augustus, assignor of one-half to M. E. Taylor, Williamsport, Pa. Cleaning attachment for type-writing machines.....	457,620	Aug. 11	1139	291	56	754
Pursell, Augustus, assignor of one-half to G. A. Cohick, Williamsport, Pa. Gearing for velocipedes.....	465,998	Dec. 29	3211	818	57	1784
Pursell, William W., Berwick, Pa. Hasp-lock.....	447,698	Mar. 3	674	168	54	1246
Pursell, William W., Berwick, Pa. Permutation-lock.....	457,959	Aug. 18	1702	445	56	870
Pursell, James B., Boston, Mass. Bench-dog.....	458,187	Aug. 25	2045	530	56	943
Purves, James. (See Ward, George R., assignor.)						
Purvis, William B., Philadelphia, Pa., assignor to Eastern Paper Bag Company. Paper-bag machine.....	460,093	Sept. 22	2439	610	56	1558
Pusey, Joshua, Lima, Pa. Ribbon-feed-reversing mechanism for type-writing machines.....	446,886	Feb. 24	2252	561	54	979
Puskas, Theodor. (See Schlenker and Puskas.)						
Puskas, Theodor, Buda-Pesth, Austria-Hungary. Submarine blasting.....	449,272	Mar. 31	3225	815	54	1767
Puterbaugh, Samuel H. (See Dreesman and Puterbaugh.)						
Putnam, Emmet P., New Orleans, La. Fan for railway-cars.....	461,712	Oct. 20	1904	471	57	378
Putnam Nail Company. (See Emery, Charles W., assignor.)						
Putnam, Perley, Laconia, and A. G. Sargent, East Tilton, N. H. Apparatus for heating freight-cars.....	464,254	Dec. 1	393	94	57	1209
Putnam, Perry, assignor to C. E. Gee, Lowell, Mass. Sawing-machine.....	447,903	Mar. 10	1039	{ 260 261 }	54	1322
Putnam, Silas S., Jr., Boston, Mass. Fender for railway-cars.....	452,530	May 19	1766	444	55	923
Putnam, Theodore A. B., assignor of seven-eighths to E. S. Webster, A. Comstock, New York, and J. W. Powell, Brooklyn, N. Y. Signaling-telegraph for cable railways.....	457,565	Aug. 11	1053	{ 269 270 }	56	738
Putnam, Walter J., Deposit, N. Y. Rotary engine.....	465,947	Dec. 29	3098	793	57	1764
Putt, Samuel S., and J. Neef, said Putt assignor to Miller Match Company, Akron, Ohio. Paper-box machine.....	452,317	May 12	1410	{ 349 350 }	55	848
Püttmann, Eduard, Schwelm, Germany. Decorating sheet metal for ceilings, &c.....	446,191	Feb. 10	1123	54	734	
Pye, James, Minneapolis, Minn. Scalping-machine.....	454,065	June 16	1331	348	55	1418
Pyle, George C., assignor to National Electric Head Light Company, Indianapolis, Ind. Steam-engine.....	444,904	Jan. 20	1490	{ 384 385 }	54	307
Pyle, George C., assignor to National Electric Head Light Company, Indianapolis, Ind. Shaft-coupling.....	446,123	Feb. 10	1000	246	54	714
Pyle, George C., assignor to National Electric Head Light Company, Indianapolis, Ind. Lubricator.....	450,424	Apr. 14	1190	290	55	233
Pyre, Frank, Fulton, Wis. Device for supporting tobacco-laths.....	461,274	Oct. 13	1128	288	57	224
Pyrophoto Company. (See Hamburger, Israel H., assignor.)						
Quanchi, Louis. (See Knight and Quanchi.)						
Quarles, Duncan M., Jr., Howell, Ky. Permutation-lock.....	447,519	Mar. 3	414	{ 101 102 }	54	1196
Quartley, Charles, Baltimore, Md. Photographic cabinet.....	450,475	Apr. 14	1259	307	55	246
Queen & Co. (See Knipe, Oscar, assignor.)						
Queen & Co., James W. (See Missimer, Jacob G., assignor.)						
Queen, William, assignor of one-half to J. H. Rutter, Baltimore, Md. Guard for companion-ways or hatches.....	458,131	Aug. 18	1957	508	56	919
Queenan, Patrick, Oklahoma, Oklahoma Ter. Soot-pan.....	462,735	Nov. 10	813	212	57	717
Quentell, William P., Kansas City, Mo. Sheet-metal can.....	454,561	June 23	2080	537	55	1568
Quick, Frank M., assignor of one-third to E. F. Darby, Springfield, Ohio. Hay rake and tedder.....	456,845	July 28	2488	654	56	497
Quick, John H., Cincinnati, Ohio. Adjusting-screw.....	451,071	Apr. 28	2209	546	55	453
Quick, John H. S. (See Elvy, Edwin S., assignor.)						
Quiggin, Daniel A., Blundell Sands, near Liverpool, assignor of one-half to J. Newton, London, England. Apparatus for evaporating sea or other water.....	448,542	Mar. 17	2069	518	54	1531
Quigley Furniture Company. (See Bancroft, Melvin, assignor.)						
Quigley, John J. (See Garland, Charles F., assignor.)						
Quimby, Wilnot B., Amesbury, Mass. Machine for trimming carriage-tops.....	458,252	Aug. 25	2158	529	56	904
Quin, Emmet T., and J. F. Dunckel, Kansas City, Mo. Cigar-cutter.....	447,843	Mar. 10	938	235	54	1303
Quincy Metal Wheel Company. (See Little, James R., assignor.)						
Quinlan, Alfred E., assignor to B. H. and J. Sanford, Sheboygan Falls, Wis. Tilting-chair iron.....	455,866	July 14	919	240	56	185
Quinlan, Dennis, Burdett, Kans. Cell-case.....	449,332	Mar. 31	3347	844	54	1786
Quinn, James, Jr., and L. V. Moulton, Grand Rapids, Mich. Machine for making crayons, &c.....	452,350	May 12	1468	363	55	859
Quinn, John J., and F. C. Snebold, Deming, N. Mex. Ter. Twine holder and cutter.....	451,771	May 5	505	124	55	674
Quinn, Mary V., Minneapolis, Minn. Dish-handler.....	464,777	Dec. 8	1194	296	57	1371
Quinn, Mary V., Minneapolis, Minn. Dish-cloth handler.....	464,778	Dec. 8	1195	297	57	1371
Quinn, Timothy C. (See Slocum, Grant H., assignor.)						
Quinn, Timothy C. (See Slocum and Gamble, assignors.)						
Quinn, Timothy C., <i>et al.</i> (See Reason, Walter M., assignor.)						
Quinn, Timothy C., <i>et al.</i> (See Wright, Herbert A., assignor.)						
Quint, Alanson D., Hartford, Conn. Drilling-machine.....	463,790	Nov. 24	2497	652	57	1057
Quintus, Charles and P., Garner, Iowa. Feeding attachment for thrashing-machines.....	461,875	Oct. 27	2171	535	57	439
Quintus, Paul. (See Quintus, Charles and P.)						
Quisenberry, Edward A., Lexington, Va. Method of and apparatus for manufacturing ice.....	460,028	Sept. 22	2331	584	56	1537
Quisenberry, Edward A., Lexington, Va. Manufacture of ice.....	460,029	Sept. 22	2333	585	56	1538
Quisenberry, Edward A., Lexington, Va. Apparatus for deaerating water.....	460,030	Sept. 22	2335	585	56	1538

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R. D. Nuttall Company. (See Myers, William J., assignor.)						
R. E. Dietz Company, <i>et al.</i> (See Betts, Charles L., assignor.)						
R. E. Dietz Company, <i>et al.</i> (See Dietz, Frederick, assignor.)						
R. E. Dietz Company, <i>et al.</i> (See Gerber, George J., assignor.)						
R. E. Dietz Company, <i>et al.</i> (See McArthur, Warren, assignor.)						
R. E. Dietz Company, <i>et al.</i> (See Wright, Frederick K., assignor.)						
Raab, William, assignor of one-half to W. R. Graham, Cedar Falls, Iowa. Automatic car-brake	451,435	Apr. 28	2790	689 690	55	564
Raab, William, assignor of one-half to H. C. Hemenway and A. Grundy, Cedar Falls, Iowa. Railway-signal	454,767	June 23	2407	618 619	55	1630
Rabby, Zulime, Mobile, Ala. Scarf-pin	454,380	June 16	1800	470	55	1566
Rabe, Friedrich. (See Gränz, Hermann, assignor.)						
Rabllard, Maxime, <i>et al.</i> (See De Loria, Louis, assignor.)						
Raborg, Edward L. (See Lewis, Walter, assignor.)						
Raby, Richard, York, Pa. Hedge fence	459,181	Sept. 8	1003	245	56	1267
Raby, Richard, assignor of one-half to H. Getz, York, Pa. Wagon-brake	444,318	Jan. 6	530	138	54	106
Race, George, Norwich, N. Y. Process of and apparatus for purifying grease	446,117	Feb. 10	987	243	54	711
Racer, William, Springfield, Mo. Oil-stove	455,356	July 7	89	26	56	21
Rach, Carl, Chicago, Ill. Preparing wort	460,969	Oct. 13	698		57	143
Rachal, Paul F., Fort Jesup, La. Horse-detacher	465,388	Dec. 15	2211	567	57	1574
Racine Malleable and Wrought Iron Company. (See Odell and Jones, assignors.)						
Radcliff, James M. (See Brumbaugh, Radcliff, and Hyde.)						
Raddas, Paul. (See Tacket and Raddas.)						
Radde, Marie. (See Farrand, William C., assignor.)						
Radford, Cassius M., East Concord, N. H. Grounding device for lightning-rods	452,983	May 26	2493	631	55	1072
Radford, Cassius M., East Concord, N. H. Fire-extinguisher	465,801	Dec. 22	2853	731	57	1709
Radkey, Louis G., Plymouth, Ill., assignor of one-half to Fowler & Fowler, St. Louis, Mo. Dust-collector	461,801	Oct. 20	2054	506	57	406
Radley, John, Jersey City, N. J. Sleigh-runner	448,754	Mar. 24	2436	609	54	1607
Rae, Frank B., assignor to Detroit Electrical Works, Detroit, Mich. Controlling-switch for electric railways	446,613	Feb. 17	1801	445	54	882
Rae, Frank B., assignor to Detroit Electrical Works, Detroit, Mich. Limit-switch	454,496	June 23	1980	515	55	1550
Rae, Frank B., assignor to Detroit Electrical Works, Detroit, Mich. Electric motor	454,626	June 23	2206	568	55	1589
Raff, Edward S., Canton, Ohio. Inkstand	445,200	Jan. 27	1970	509	54	409
Raff, Edward S., Canton, Ohio. Inkstand	445,201	Jan. 27	1971	509	54	409
Rafferty, John B. (See Sanders and Rafferty.)						
Rafferty, Thomas, New York, N. Y. Ship's fender	448,074	Mar. 10	1309	335	54	1375
Ragan, William H., Mount Pisgah, Ark. Line and trace holder	458,112	Aug. 18	1926	501	56	914
Rage, John C., Chicago, Ill. Seat-spring for bicycles	458,113	Aug. 18	1927	501	56	915
Ragsdale, Harvey W., Trafalgar, Ind. Signal for railway-crossings	464,145	Dec. 1	206	49	57	1176
Rahling, Christopher S., and J. H., Chicago, Ill. Ingot-mold-making machine	461,487	Oct. 20	1541	378	57	311
Rahling, John H. (See Rahling, Christopher S. and J. H.)						
Rahmer, Louis. (See Schumacher, William, assignor.)						
Railroad Mica Lubricant Company. (See Kinble, Smith W., assignor.)						
Railway Lighting and Heating Company. (See Frost, Edward J., assignor.)						
Railway Water Supply Company. (See Burt, Merritt, assignor.)						
Rainey, John C., San Saba, Tex. Grindstone attachment	455,113	June 30	3055	776	55	1759
Rains, Columbus R., and M. Lanier, Carter, Tex. Combined cotton-chopper and cultivator	465,143	Dec. 15	1814	460	57	1498
Raisor, Benjamin T., Chicago, Ill. Door-check	449,916	Apr. 7	409	102	55	80
Ralph, Murray N. (See Drury, Alfred C., assignor.)						
Ramage, Alexander, Idaho Springs, Colo. Cam for stamp-mills	446,693	Feb. 17	1932	482	54	906
Ramion, Peter J., Syracuse, assignor of one-half to F. W. Fenner, Little Utica, N. Y. Post-office cabinet	451,436	Apr. 28	2791	690	55	565
Ramsay, William, Washington, D. C. Electric time-denoting device	455,055	June 30	2952	751	55	1738
Ramsden, John W., and H. S. Ellis, Leeds, England. Sewing-machine	465,887	Dec. 29	3009	768 769 770	57	1747
Ramsey, Joseph, Jr., E. W. Harden, and C. M. Wilder, assignors to said Ramsey and F. C. Weir, Cincinnati, Ohio. Electric signal and switch moving mechanism	458,489	Aug. 25	2555	622 623	56	1638
Ramsey, Philip L., Schochoh, assignor of one-half to G. T. Morgan, Russellville, Ky. Vehicle-spring gear	454,768	June 23	2411	619	55	1630
Ramsey, Wilberforce A., Johnson City, Tenn. School furniture	453,914	June 9	1122	293	55	1369
Ramsperger, Hermann G., New York, N. Y. Photographic roll-holder	448,801	Mar. 24	2502	626 627	54	1620
Rand, Charles A. A., Chicago, Ill., assignor to William Deering & Company. Device for raising and lowering harvesters	461,249	Oct. 13	1096	279	57	219
Rand, Charles E., assignor to Rau Manufacturing Company, Chicago, Ill. Oil-can	445,127	Jan. 20	1841	477	54	375
Rand, Charles N., Geneva, Ohio. Trousers-stretcher	454,666	June 23	2263	581	55	1600
Rand, George D., and J. A. Kollmyer, Keokuk, Iowa. Steam-pump	465,050	Dec. 15	1643	418 419	57	1468
Rand, William C., assignor of one-half to C. E. Thrlow, Lewiston, Me. Machine for covering webbing for boat-straps	453,976	June 9	1203	314	55	1386
Rand, Willis M. (See Herrick and Rand.)						
Randal, John C., and W. E. Price, Cincinnati, Ohio. Multiplying-camera	465,802	Dec. 22	2855	731	57	1709
Randall, Amelia A. (See Randall, Silas G., assignor.)						
Randall, Bellville L., Boston, Mass. Brake for electric cars	444,110	Jan. 6	209	50	54	43
Randall Car Heater Company. (See Randall, William H., assignor.)						
Randall, Don W., assignor of one-half to G. W. Vickers, Wapakoneta, Ohio. Tellurian	452,650	May 19	1951	489	55	959
Randall, George H., Medford, Mass. Fastener for envelopes	452,651	May 19	1951	490	55	959
Randall, George H., Medford, Mass. Fastener for envelopes	461,143	Oct. 13	906	235	57	182
Randall, James D. (See Randall, Silas H., assignor.)						
Randall, Lucius A. (See De Good, Joseph L., assignor.)						
Randall, Samuel A. (See Shaw, Henry F., assignor.)						
Randall, Silas G., assignor to A. A. Randall, Greene, N. Y. Elevated transportation	453,939	June 9	1155	301 302	55	1376
Randall, Silas H., assignor of one-half to J. D. Randall, Wyoming, Ohio. Horse-collar mold	453,565	June 2	602	154	55	1261
Randall, Silas G., assignor to A. A. Randall, Greene, N. Y. Harrow	465,497	Dec. 22	2378	608 609	57	1617
Randall, Thomas B. (See Gray, Thomas H., assignor.)						
Randall, William H., assignor to Randall Car Heater Company, Chicago, Ill. Heater	460,659	Oct. 6	197	51	57	41
Randall, William P., Le Roy, N. Y. Fence	448,455	Mar. 17	1946	490	54	1507
Randell, Benjamin F. (See Hamilton, Silas H., assignor.)						
Randle, Robert W., Portland, Ind. Meat-holder	446,268	Feb. 10	1272	312	54	763

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Randle, William A., Oakland, Ala. Foot-warmer	444,269	Jan. 6	460	117	54	91
Randolph, Isham, Chicago, Ill. Interlocking apparatus for railway switches and signals ..	464,697	Dec. 8	1069	{ 265 266 }	57	1347
Randolph, Richard F. (See Watson and Randolph.)						
Rank, Amos, Sr., Salem, Ohio. Harvesting-machine	446,292	Feb. 10	1305	{ 319 320 321 }	54	770
Ranke, William, and W. Yergens, Fort Wayne, Ind. Machine for bending timber	447,202	Feb. 24	2801	{ 692 693 }	54	1081
Rankin, Archibald E. (See Waterbury and Rankin.)						
Rankin, David, Rosamond, assignor to himself and A. W. Berry, Pasadena, Cal. Door-check	453,915	June 9	1123	294	55	1369
Rankin, Edmund, Jr., Lincoln, Ill. Portable roof	451,572	May 5	190	46	55	616
Rankin, John and T. V., Williamsdale, Ohio. Kitchen-cabinet	446,647	Feb. 17	1862	462	54	894
Rankin, Thomas V. (See Rankin, John and T. V.)						
Rannells, Ezra A., et al. (See Orr, William, Sr., assignor.)						
Ranney, Darwin D., assignor to H. W. Phelps and S. J. Ranney, Lewistown, Ill. Machine for cutting blanks for metal can-bodies	448,258	Mar. 17	1613	412	54	1443
Ranney, Sarah J., et al. (See Ranney, Darwin D., assignor.)						
Ransom, Albert F., Burlington, Wis. Horse-blanket	447,793	Mar. 10	858	213	54	1287
Ransom, Albert F., Burlington, Wis. Carriage-curtain fastening	457,841	Aug. 18	1494	389	56	831
Ransom, Newman A., Chicago, Ill. Ironing-machine	449,702	Apr. 7	85	22, 23	55	19
Ransom, Washington H. (See Gould, Sylvester O., assignor.)						
Ransome, Ernest L., San Francisco, Cal. Manufacture of bricks	447,972	Mar. 10	1159	-----	54	1344
Ransome, Ernest L., San Francisco, Cal. Illuminating-panel in concrete floors	448,993	Mar. 24	2787	705	54	1675
Rapp, Stephen H., West Chester, Pa. Fan attachment for doorways	464,333	Dec. 1	517	125	57	1232
Rask, August. (See Windler, Henry L., assignor.)						
Raskazoff, Leonid, St. Petersburg, Russia, and J. E. Compton-Bracebridge, London, Eng. land. Gun-mounting	463,075	Nov. 10	1355	{ 350 351 }	57	823
Rasmussen, Einar. (See Hall and Rasmussen.)						
Rasmussen, Einar, Lynn, Mass., assignor to Thomson Electric Welding Company, of Maine. Electric clamp	458,188	Aug. 25	2046	530	56	948
Rasner, Franklin, Bangor, Pa. Chimney-top	462,162	Oct. 27	2611	650	57	522
Rassweiler, John K., Wheaton, Ill. Tellurian	448,075	Mar. 10	1310	335	54	1375
Rastetter, Louis, and C. Siebold, Fort Wayne, Ind. Seat attachment for bicycles	460,031	Sept. 22	2336	585	56	1539
Ratcliff, James E., Dawson, Ill. Washing-machine	460,446	Sept. 29	2970	743	56	1667
Ratcliff, William H., Newark, N. J. Belt-fastener	455,056	June 30	2954	752	55	1739
Ratcliffe, Francis W., Louisville, Ky. Broom	458,757	Sept. 1	318	77	56	1126
Rathbun, John E. (See Wiggin and Rathbun.)						
Rathbun, John E. (See Wiggin, Collord, and Rathbun.)						
Rathbun, John H., Milwaukee, Wis. Tapping device	445,615	Feb. 3	152	40	54	541
Rathbun, John O., Providence, R. I. Velocipede	449,383	Mar. 31	3443	866	54	1804
Rathbun, Lewis V., assignor, by mesne assignments, to M. E. Rathbun, Rochester, N. Y. Dust-collector	449,946	Apr. 7	448	112	55	88
Rathbun, Mary E. (See Rathbun, Lewis V., assignor.)						
Rathbun, Whitman C., assignor of one-third to C. F. Pecaut, Sioux City, Iowa. Hydrant ..	451,518	May 5	108	27	55	600
Rathgeber, John A. (See Rathgeber, William J. and J. A.)						
Rathgeber, William J. and J. A., New Haven, Conn. Dress-form	455,475	July 7	277	70, 71	56	56
Rathkamp, Frederick. (See Albert and Rathkamp.)						
Rathmann, Johann H. E., Buffalo, N. Y. Grain-drier floor	465,203	Dec. 15	1903	{ 482 483 }	57	1516
Ratliff, Odd J., Kansas City, Mo. Advertising-vehicle	453,209	June 2	41	12, 13	55	1157
Rattek, Frank, assignor of one-half to E. T. Sleath, Denver, Colo. Locomotive-engine-wheel lathe	463,995	Nov. 24	2837	{ 735 736 746 }	57	1122
Rau, Emanuel, Brooklyn, assignor to E. Rau Manufacturing Company, New York, N. Y. Envelope-machine	446,124	Feb. 10	1002	{ 247 248 }	54	715
Rau Manufacturing Company. (See Rand, Charles E., assignor.)						
Rau Manufacturing Company, Emanuel. (See Rau, Emanuel, assignor.)						
Raub, Lincoln H., South Easton, Pa. Car-brake attachment	455,114	June 30	3056	777	55	1759
Rauchfuss, Herman. (See Blake and Rauchfuss.)						
Raudenbush, Harry R., Vicksburg, Pa. Vehicle-spring	463,648	Nov. 24	2293	602	57	1019
Raughtigan, Michael, assignor of one-half to F. C. Turner, Norwich, Conn. Wire-shears ..	451,601	May 5	235	56	55	624
Rauh, Henry. (See Krem, John, assignor.)						
Rawdon, Lucien, Windsor, Ohio. Door-check	445,455	Jan. 27	2337	607	54	482
Rawson, Frederick L. (See Cunynghame, Rawson, and Woodhouse.)						
Rawson, Kimball P., Philadelphia, Pa. Combined step-ladder and chair	448,367	Mar. 17	1807	{ 455 456 }	54	1480
Rawson, Thomas, Paterson, N. J. Water-tower attachment	463,749	Nov. 24	2441	640	57	1047
Ray, George W. (See Vail, Joseph C., assignor.)						
Ray, Harvey, Mobile, Ala. Inking-ribbon-spool mounting for type-writing machines	445,265	Jan. 27	2072	534	54	428
Ray, Samuel H. (See Gibson, Walter L., assignor.)						
Raymond, Charles W., Dayton, Ohio. Brick mold and press	455,951	July 14	1051	275	56	208
Raymond, Albert. (See Raymond, George and A.)						
Raymond, Freeborn F., 2d. (See Small, Chester C., assignor.)						
Raymond, Freeborn F., 2d, Newton, Mass. Heel-nailing machine	461,448	Oct. 20	1421	{ 358 359 }	57	289
Raymond, Freeborn F., 2d, Newton, Mass. Shoe-nail	461,510	Oct. 20	1588	388	57	319
Raymond, Freeborn F., 2d, Newton, Mass. Cam and gear and blank therefor	464,165	Dec. 1	238	59	57	1181
Raymond, Freeborn F., 2d, Newton, Mass. Heel-nailing machine	464,255	Dec. 1	395	94	57	1209
Raymond, Freeborn F., 2d, Newton, Mass. Heel-nailing machine	464,991	Dec. 15	1541	{ 388 389 390 391 392 393 394 }	57	1449
Raymond, Freeborn F., 2d, Newton, Mass. Heel-blank	465,029	Dec. 15	1615	411	57	1463
Raymond, George and A., Chicago, Ill. Ore-crusher	464,083	Dec. 1	116	29, 30	57	1159
Raymond, George C. (See Woodford and Raymond.)						
Raymond, George E., Grand Rapids, Mich. Vehicle-spring	448,543	Mar. 17	2071	519	54	1531
Raymond, George E., Grand Rapids, Mich. Vehicle-spring	452,531	May 19	1767	444	55	923
Raymond, Mark, Hatfield, N. Y. Grindstone attachment	450,191	Apr. 14	795	{ 201 202 }	55	161

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Raymond, Pierre A., Grenoble, France. Shoe-fastening.....	449,273	Mar. 31	3226	815	54	1767
Raymond, Walton A., Bridgewater, Mass. Boot or shoe sole-sewing machine.....	459,937	Sept. 22	2212	556	56	1515
Raynal, Alfred H., Richmond, Va. Governor for steam-engines.....	450,917	Apr. 21	1969	483	55	398
Raynor, William M. (See Van Brunt and Raynor.)						
Raynor, Zebulon T., Hornellsville, N. Y. Copying-pad for autographic copying.....	455,455	July 7	246	63	56	50
Rea, Edmund K., Ovid, Mo. Nose-ring for animals.....	453,940	June 9	1156	302	55	1377
Reach, Alfred J. (See Decker, Earle H., assignor.)						
Reach, Robert, assignor to American Patents Company, Philadelphia, Pa. Glove.....	450,717	Apr. 21	1660	400	55	339
Read, Charles H., and A. D. Thomas, Pittsburg, Pa.; said Thomas assignor to said Read. Method of and apparatus for rolling girder-rails.....	452,732	May 19	2079	524	55	984
Read, Daniel M., New York, N. Y. Gusset-clasp for pocket-books.....	459,307	Sept. 8	1188	288	56	1305
Read, Daniel M., New York, N. Y. Gusset-clasp for pocket-books.....	459,308	Sept. 8	1189	289	56	1305
Reader, Rice, and C. W. Weiland, Pringhar, Iowa. Running-gear for vehicles.....	444,103	Jan. 6	194	48	54	40
Reading, John, Akron, Ohio. Cloth-measuring machine.....	448,368	Mar. 17	1808	456	54	1481
Reading, William, Rockville, Md. Drain-tile.....	460,352	Sept. 29	2850	710	56	1644
Reading, William, Rockville, Md. System of draining and aerating land and apparatus therefor.....	463,871	Nov. 24	2639	688	57	1084
Readman, James. (See Frink and Readman.)						
Readman, William, assignor to J. C. Hurst, Toronto, Canada. Subway for electric wires.....	454,155	June 16	1465	384	55	1443
Reagan, James. (See Evans, William, assignor.)						
Reagan, James, Philadelphia, Pa. Circulating water-bar grate.....	459,342	Sept. 8	1249	307	56	1316
Reagan, James, Philadelphia, Pa. Circulating water-bar grate.....	464,649	Dec. 8	983	246	57	1333
Reagan, John W. (See Reagan, Mendal F., assignor.)						
Reagan Manufacturing Company. (See Evans, William, assignor.)						
Reagan, Mendal F., assignor to himself and J. W. Reagan, Salisbury, Mo. Fence-wire reel.....	462,587	Nov. 3	579	141	57	602
Reagan, Paul M., assignor to Hinson Car Coupler Company, Chicago, Ill. Car-coupling.....	466,082	Dec. 29	3335	851	57	1811
Reagan, William J., New Brighton, N. Y., and R. R. Longley, Bayonne, N. J. Composition of matter for plastering walls, &c.....	451,519	May 5	109		55	600
Reamer, James S., Portville, N. Y. Indicator.....	452,111	May 12	1077	273	55	785
Reamy, Christopher S., Boston, Mass. Protractor.....	449,782	Apr. 7	216	55	55	44
Reardon, Charles B., assignor of one-half to J. E. Gill, Franklin, Pa. Electric valve-controller.....	450,872	Apr. 21	1910	468 469	55	386
Reason, Walter M., et al. (See Wright, Herbert A., assignor.)						
Reason, Walter M., assignor of one-half to T. C. Quinn, L. H. Corcoran, A. T. Slaght, and J. F. Seeley, Caro, Mich. Type-writing machine.....	453,941	June 9	1157	302	55	1377
Reber, Bernard, Locle, Switzerland. Repeating-watch.....	447,973	Mar. 10	1161	294	54	1344
Reber, Charles, Munich, Germany. Bedstead.....	450,748	Apr. 21	1700	411	55	348
Rebmann, John G. (See Auredenn, John, assignor.)						
Reckenzaun, Anthony, London, England, assignor of one-half to J. A. Pentz, Philadelphia, Pa. Electric meter.....	463,711	Nov. 24	2391	627	57	1037
Recker, John P., assignor to F. W. Dickerman, Chicago, Ill. Curtain or flexible cylinder for desks.....	451,437	Apr. 28	2793	690	55	565
Reckniewski, Wenceslas C. (See Meylan and Reckniewski.)						
Rector, James A., Lancaster, Mo. Truss.....	449,806	Apr. 7	251	63	55	50
Rector, James A., Lancaster, Mo. Hand corn-planter.....	460,990	Oct. 13	699	180	57	143
Redding, Charles H., Atlanta, Ga. Adjustable wardrobe.....	455,725	July 7	697	183	56	134
Redding Electric Company. (See Redding, Harvey, assignor.)						
Redding, Harvey, Everett, assignor to Redding Electric Company, Boston, Mass. Watchman's electric recorder.....	464,256	Dec. 1	397	94, 95	57	1209
Redding, William F., King's Station, N. Y. Clothes-drier.....	458,375	Aug. 25	2376	579 580	56	1004
Redel, Francis W., Columbus, Ohio. Lawn-mower attachment.....	463,451	Nov. 17	1955	510	57	947
Redfearn, Edward, Philadelphia, Pa. Shedding mechanism for looms.....	459,257	Sept. 8	1112	271	56	1289
Redfield, Casper L., Chicago, Ill., assignor to Chicago Matrix Machine Company. Escape-ment device for matrix making machines.....	448,587	Mar. 17	2140	537	54	1544
Redfield, Casper L., Chicago, Ill., assignor to Chicago Matrix Machine Company. Matrix-making machine.....	448,994	Mar. 24	2789	705 706	54	1675
Redfield, Casper L., Chicago, Ill., assignor to Chicago Matrix Machine Company. Die-cutting machine.....	454,567	June 23	2088	538	55	1569
Redfield, Casper L., Minneapolis, Minn., assignor, by mesne assignments, to Chicago Matrix Machine Company. Type-die for matrix-making machines.....	454,066	June 16	1333	348	55	1418
Redfield, Jessie A. (See Redfield, Lewis H., assignor.)						
Redfield, Lewis H., assignor to J. A. Redfield, Syracuse, N. Y. Towel-holder.....	464,108	Dec. 1	152	37	57	1166
Redford, William H., Chicago, Ill. Pritch.....	456,431	July 21	1804	477	56	360
Redican, Joseph, assignor of two-thirds to J. Chamberlain and G. Ross, Toronto, Canada. Hydrant.....	451,772	May 5	506	125	55	674
Redick, Reubin F. (See Hance and Redick.)						
Redlinger, Michael, assignor to C. Morgan, A. Baumgarten, and E. H. Morgan, Freeport, Ill. Spring-hinge.....	447,844	Mar. 10	939	235	54	1303
Redlinger, Michael, assignor to L. M. Devore and M. H. Wilcoxon, Freeport, Ill. Velocipede.....	452,082	May 12	1027	259 260	55	776
Redman, Charles H., Newark, N. J. Pencil-sharpener.....	453,448	June 2	437	112	55	1231
Redman, Charles H., Jr., assignor to C. H. Redman & Co., Newark, N. J. Type-writing machine.....	466,309	Dec. 29	3695	943	57	1878
Redman & Co., C. H. (See Redman, Charles H., Jr., assignor.)						
Redman, Frederick, London, England. Advertising-clock.....	451,248	Apr. 28	2510	619	55	511
Redmon, Hope. (See Earle, Good, and Redmon.)						
Redmon, John T. (See Van Leer and Redmon.)						
Reece Button Hole Machine Company. (See Hill, George S., assignor.)						
Reece, John. (See Shea, Albert, assignor.)						
Reece, John, Boston, Mass. Clutch for button-hole-stitching machines.....	459,046	Sept. 8	787	190	56	1226
Reece, Thomas, New York, N. Y. Runner for wheeled vehicles.....	452,083	May 12	1028	260	55	776
Reed, Alanson H., Chicago, Ill. Piano-frame.....	464,992	Dec. 15	1552	394 395	57	1451
Reed, Alanson H., Chicago, Ill. Piano-framing.....	464,993	Dec. 15	1554	395	57	1451
Reed, Alanson H., Chicago, Ill. Wrest-plank for pianos.....	463,417	Dec. 15	2252	578	57	1582
Reed, Alexander H. (See Sanderson and Reed.)						
Reed, Alice A., executrix. (See Reed, Porter H.)						
Reed & Barton Corporation. (See Jackson, Austin F., assignor.)						
Reed & Barton Corporation. (See Jackson and Hewitson, assignors.)						
Reed, Charles, Chillicothe, Ohio. Boring and mortising implement.....	450,338	Apr. 14	1053	258	55	208
Reed & Company, D. C. & H. C. (See McMahon, James, assignor.)						
Reed, Charles S., Boston, Mass., assignor to National Sewing Machine Company, New Haven, Conn. Sewing-machine.....	455,691	July 7	633	167	56	123

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Reed, Edwin E., Williamston, Mich., and K. M. Turner, Chicago, Ill.; said Turner assignor to said Reed. Bale-tie.	457,292	Aug. 4	577	153	56	640
Reed, Eli S., assignor to Universal Sewing Machine Motor Attachment Company, Chattanooga, Tenn. Spring-motor.	444,906	Jan. 20	1495	386	54	308
Reed, Eli S., assignor to Universal Sewing Machine Motor Attachment Company, Chattanooga, Tenn. Spring-motor.	444,907	Jan. 20	1499	387	54	309
Reed, Eli S., assignor to Universal Sewing Machine Motor Attachment Company, Chattanooga, Tenn. Spring-motor.	444,908	Jan. 20	1501	{ 387 388 }	{ 54 54 }	{ 309 309 }
Reed, Eli S., and C. T. Painter, assignors to Universal Sewing Machine Motor Attachment Company, Chattanooga, Tenn. Spring-motor.	444,905	Jan. 20	1492	386	54	308
Reed, Elsworth E., Taylorville, Ill. Device for fastening pad-screws, &c., in harness.	444,711	Jan. 13	1135	293	54	233
Reed, Francis O., assignor of one-half to J. D. Williams, Paris, Tex. Wire-stretcher.	444,075	Jan. 6	153	38	54	33
Reed, Franklin M., Anderson, assignor of part to S. C. Keesling, G. B. Best, and J. S. Moore, Muncie, Ind. Burner for natural gas.	444,850	Jan. 20	1367	354	54	284
Reed, Frederick E. (See Back, John R., assignor.)						
Reed, George E., assignor to Scovill Manufacturing Company, Waterbury, Conn. Apparatus for scaling annealed sheet metal.	456,340	July 21	1643	434	56	331
Reed, George M., Boston, assignor of one-fourth to D. H. Bishop, West Medford, Mass. Placer-machine.	453,278	June 2	152	43	55	1177
Reed, Harrison T., Revere, Mass. Pocket tobacco-cutter.	448,672	Mar. 24	2297	576	54	1580
Reed, Horatio G. H., Oshkosh, Wis. Key-hole guard.	449,917	Apr. 7	410	103	55	80
Reed, Hugh T., Chicago, Ill. Fountain-pen.	449,295	Mar. 31	3269	829	54	1774
Reed, Iram C., and C. Congdon, Syracuse, N. Y. Coupon.	462,328	Nov. 3	174	44	57	584
Reed, J. Van D. (See Stowe, Benjamin L., assignor.)						
Reed, Jacob C., Sioux City, Iowa. Device for automatically closing doors to elevator-wells.	452,415	May 19	1576	391	55	890
Reed, James H., Lynn, Mass., assignor to Globe Buttonhole Machine Company, Kittery, Me. Button-hole stitching and barring machine.	454,067	June 16	1334	{ 348 349 }	{ 55 55 }	{ 1418 1418 }
Reed, James D. S., Chicago, Ill., assignor of two-thirds to T. B. Adams, Cheyenne, Wyo. Passenger-car.	461,132	Oct. 13	890	231	57	179
Reed, James H., Lynn, Mass., assignor to Globe Buttonhole Machine Company, Kittery, Me. Button-hole stitching and barring machine.	454,068	June 16	1337	{ 349 350 }	{ 55 55 }	{ 1419 1419 }
Reed, James H., and C. A. Dahl, Lynn, Mass., assignors to Globe Buttonhole Machine Company, Kittery, Me. Button-hole stitching and barring machine.	450,844	Apr. 21	1861	{ 454 455 456 495 496 497 498 499 }	{ 55 55 55 55 55 55 55 55 }	{ 376 376 376 376 376 376 376 376 }
Reed, James H., and C. A. Dahl, Lynn, Mass., assignors to Globe Buttonhole Machine Company, Kittery, Me. Button-hole stitching and barring machine.	450,950	Apr. 21	2011	{ 497 498 499 }	{ 55 55 55 }	{ 406 406 406 }
Reed, Jerome B., Sanbury, Pa. Game apparatus.	453,310	June 2	200	54	55	1185
Reed, John E., Los Angeles, Cal. Agricultural machine.	463,966	Nov. 24	2780	721	57	1112
Reed, John H., Lancaster, Wis. Educational appliance.	446,468	Feb. 17	1592	391	54	841
Reed, John L., Canajoharie, N. Y. Pulley-block.	448,729	Mar. 24	2393	509	54	1599
Reed, John W., Chicago, Ill. Pedal for pianos.	461,488	Oct. 20	1543	378	57	311
Reed, John W., Chicago, Ill. Piano-agraffe.	464,994	Dec. 15	1555	395	57	1452
Reed, Joseph V., and E. Frazer, Jeffersonville, Ind. Seal-lock.	456,596	July 28	2062	546	56	418
Reed, Lemon M., Cleveland, Ohio. Wooden package.	463,777	Nov. 24	2480	{ 647 648 }	{ 57 57 }	{ 1055 1055 }
Reed, Lemon M., Cleveland, Ohio. Knockdown keg.	465,291	Dec. 15	2044	522	57	1542
Reed, Lewis M. (See Boll and Reed.)						
Reed, Marshall J., Roann, Ind. Cultivator attachment.	444,134	Jan. 6	257	62	54	53
Reed, Orrin S. (See Sloan, Hughes, and Reed.)						
Reed, Porter H., deceased, Cairo, N. Y.; A. A. Reed executrix. Weather-strip.	451,641	May 5	305	74	55	636
Reed, Robert L., Washington, D. C. Lock.	446,789	Feb. 17	2072	516	54	936
Reed, Robert N., Covington, Ky. Solar reflecting-camera.	447,645	Mar. 3	606	149	54	1232
Reed, Sarah A. <i>et al.</i> (See Fricker, Thomas, assignor.)						
Reed, Thomas L., Providence, R. I. Covered electric conductor.	465,888	Dec. 29	3012	770	57	1748
Reed, Thomas W., Tippecanoe City, Ohio. Stalk-splitting machine for whips.	454,497	June 23	1982	515	55	1550
Reed, William S. (See Brandt, Clinton H., assignor.)						
Reed, William S., Marshalltown, Iowa. Apparatus for heating water.	455,057	June 30	2955	752	55	1739
Reeder, William S., assignor to Kingsland & Douglas Manufacturing Company, St. Louis, Mo. Baling-press.	462,930	Nov. 10	1145	296	57	780
Reeder, William S., assignor to Kingsland & Douglas Manufacturing Company, St. Louis, Mo. Belt-tightener for cotton-gins.	462,931	Nov. 10	1147	297	57	781
Reedy, Henry J., Cincinnati, Ohio. Driving mechanism for elevators.	445,902	Feb. 3	633	{ 155 156 }	{ 54 54 }	{ 636 636 }
Reel, Daniel S. (See Parry and Reel.)						
Reep, G. W. (See Davidson and Flender, assignors.)						
Rees & Co., William. (See Ford, John C., assignor.)						
Reese, Daniel J., Plymouth, Pa. Grapple.	452,950	May 26	2440	615	55	1062
Reese, Edwin M., Santa Paula, Cal. Ditching-machine.	459,649	Sept. 15	1761	443	56	1421
Reese, Jacob, Pittsburg, Pa. Ammoniated phosphate.	450,253	Apr. 14	917	.....	55	182
Reese, Jacob, Pittsburg, Pa. Phosphatic fertilizer.	450,254	Apr. 14	917	.....	55	182
Reese, Jacob, Pittsburg, Pa. Phosphatic fertilizer.	450,255	Apr. 14	918	.....	55	183
Reese, Jacob, Philadelphia, Pa. Phosphatic fertilizer.	450,531	Apr. 14	1337	.....	55	263
Reese, John H., Austin, assignor of one-half to W. Wilkie, Oak Park, Ill. Hot-air register.	456,520	July 21	1945	512	56	387
Reese, Lewis, Chicago, Ill. Machine for grinding lenses.	449,947	Apr. 7	450	113	55	88
Reese, Louis F. (See Hales and Reese.)						
Reese, Roswell, Fisher, Tex. Churn-power.	463,872	Nov. 24	2641	688	57	1084
Reese, Thomas, Jr., Newark, N. J., and H. W. Seller, Brooklyn, N. Y. Smoke-preventing water-tube-boiler furnace.	448,076	Mar. 10	1311	{ 335 336 }	{ 54 54 }	{ 1375 1375 }
Reese, William. <i>et al.</i> (See Bell, George, assignor.)						
Reeser, Rufus B., Bnena Vista, Ill. Compound for dehorning cattle.	453,129	May 26	2728	.....	55	1119
Reeves, Abbott M., Decatur, Ill. Wire fabric for mats.	448,489	Mar. 17	2000	501	54	1516
Reeves, Alexander M., Buda, Tex. Tire-tightener.	449,234	Mar. 31	3164	797	54	1755
Reeves, Alfred B., assignor to Reeves & Co., Columbus, Ind. Feeder for clover-bullers.	455,886	July 14	953	249	56	191
Reeves, Alfred B., assignor to Reeves & Co., Columbus, Ind. Hood for thrasher straw-carriers.	459,369	Sept. 8	1287	317	56	1324
Reeves & Co. (See Reeves, Alfred B., assignor.)						
Reeves, James L., Collinsville, Ala. Crate.	464,122	Dec. 1	170	42	57	1169
Reeves, James R. G., McComb, Miss. Cultivator.	446,538	Feb. 17	1702	417	54	862
Reeves, Kenneth M. (See Mannel and Reeves.)						
Reeves, Milton O., Columbus, Ind. Baling-press.	457,369	Aug. 11	750	192	56	679

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Regan, Daniel S., assignor to Regan Vapor Engine Company, San Francisco, Cal. Vapor-engine.....	448,369	Mar. 17	1810	{ 456 457 }	54	1481
Regan Vapor Engine Company. (See Regan, Daniel S., assignor.)						
Rehberger, August, St. Louis, Mo. Overhanging transparent-shelf system for stores.....	464,344	Dec. 1	531	{ 129 130 }	57	1235
Rehfuss, George. (See Fitz and Rehfuss.)						
Rehfuss, George, J. G., and M. O., assignors to W. P. Uhlinger, Philadelphia, Pa. Machine for lacing Jacquard cards.....	453,024	May 26	2555	646	55	1084
Rehfuss, George, J. G., and M. O., assignors to Joly Stopper Company, Philadelphia, Pa. Bottle-filling machine.....	456,907	July 28	2593	682	56	517
Rehfuss, John G. (See Fitz and Rehfuss.)						
Rehfuss, John G. (See Rehfuss, George, J. G., and M. O.)						
Rehfuss, Martin O. (See Fitz and Rehfuss.)						
Rehfuss, Martin O. (See Rehfuss, George, J. G., and M. O.)						
Rehm, Ernst. (See Segal, Jennie, assignor.)						
Rehm, John, and F. A. C. Marx, New York, N. Y. Paddle attachment for boats.....	456,846	July 28	2489	654	56	497
Rehm, Martin, Long Island City, N. Y. Subsoil-pipe.....	453,502	June 2	513	132	55	1245
Rehström, Albert W., Mälhammar, assignor to Aktiebolaget Lactoserin, (Lactoserin Company, Limited.) Stockholm, Sweden. Preparing food from milk-curd.....	446,887	Feb. 24	2255	.....	54	980
Rehse, J. Henry. (See Tyrrel, Robert A., assignor.)						
Reich, Isaac, assignor of one-third to C. H. Tise, Winston, N. C. Tobacco-hanger.....	447,699	Mar. 3	675	168	54	1246
Reichardt, Theophilus, Brooklyn, N. Y. Tower.....	447,477	Mar. 3	355	88	54	1184
Reichardt, Ferdinand A., New York, N. Y. Syringe.....	458,253	Aug. 25	2159	529	56	965
Reichardt, Ferdinand A., New York, N. Y. Forceps-joint.....	458,254	Aug. 25	2160	530	56	965
Reiche, Ernest C., Chestertown, assignor of one-half to G. W. Warfield and H. Rohr, Baltimore, Md. Ballot-box.....	456,847	July 28	2490	{ 654 655 }	56	498
Reiche, Hermann, New York, N. Y. Performing-platform for animals.....	461,449	Oct. 20	1425	359	57	290
Reichert, Bruno, South Bend, Ind. Spring-motor.....	449,384	Mar. 31	3444	{ 866 867 }	54	1804
Reichenbach, Henry M., and S. C. Passavant, Rochester, N. Y. Manufacture of flexible photographic films.....	458,663	Sept. 1	183	.....	56	1100
Reichert, John. (See Johnson and Reichert.)						
Reichhelm, Edward P., Jersey City, and G. Machlet, Jr., Elizabeth, N. J. Apparatus for and method of making fuel-gas.....	464,779	Dec. 8	1196	297	57	1371
Reichmann, Joseph, Chicago, Ill. Car-brake.....	445,733	Feb. 3	357	93	54	583
Reid, Alban H., Philadelphia, Pa. Milk-testing device.....	446,469	Feb. 17	1594	391	54	842
Reid, Arthur B., Chicago, Ill. Type-writing machine.....	452,984	May 26	2494	631	55	1073
Reid, Arthur B., assignor of one-half to L. Filstrup, Chicago, Ill. Type-writing machine.....	449,296	Mar. 31	3271	829	54	1774
Reid, George, Reese, Mich. Grappling-shackle.....	465,069	Dec. 15	1672	426	57	1473
Reid, James, Jr., Seymour, Conn., assignor of one-half to W. Hagen, Troy, N. Y. Reversible screw-driver.....	456,341	July 21	1644	435	56	331
Reid, James, Jr., Seymour, Conn., assignor of one-half to W. Hagen, Troy, N. Y. Tack-drawing implement.....	456,679	July 28	2205	584	56	447
Reid, James H., Colony, Kans. Shot-canister.....	454,124	June 16	1413	369	55	1433
Reid, John, Yonkers, assignor to J. L. Mott Iron Works, New York, N. Y. Porcelain wash-out closet.....	448,864	Mar. 24	2609	655	54	1640
Reid, John, Yonkers, assignor to J. L. Mott Iron Works, New York, N. Y. Seat for water-closets.....	454,545	June 23	2057	532	55	1564
Reid, Ransom, and J. P. Browne, Santa Ana, Cal. Hose-coupling.....	464,893	Dec. 8	1358	341	57	1403
Reifert, John, Rome, N. Y. Rail-joint, &c.....	458,342	Aug. 25	2320	566	56	995
Reiff, William H., assignor of one-half to J. W. Clark, Philadelphia, Pa. Toy target.....	451,725	May 5	432	105	55	661
Reiger, John E. (See Jackson and Reiger.)						
Reiley, John, Jersey City, N. J. File-handle.....	447,904	Mar. 10	1040	261	54	1322
Reiley, John, Jersey City, N. J. Device for cleaning gas-burners.....	447,905	Mar. 10	1041	261	54	1322
Reiley, Richard S. and T. F., New York, N. Y. Paint-pot.....	451,171	Apr. 28	2366	588	55	485
Reiley, Terence F. (See Reiley, Richard S. and T. F.)						
Reiley, Terence F., New York, N. Y. Standard.....	452,416	May 19	1577	391	55	890
Reilly, Dennis J., deceased; O. J. Maigne and M. E. Reilly, Brooklyn, N. Y., executors. Apparatus for molding printers' rollers.....	453,196	June 2	25	8	55	1154
Reilly, H. J. (See Dillon, Joseph, assignor.)						
Reilly, James, Brooklyn, N. Y. Pneumatic cash-carrier.....	460,160	Sept. 29	2547	635	56	1585
Reilly, John C., Brooklyn, N. Y. Electric cable.....	445,234	Jan. 27	2018	520	54	418
Reilly, John C., Brooklyn, N. Y. Electrical subway.....	447,350	Mar. 3	116	30, 31	54	1139
Reilly, John C., Brooklyn, N. Y. Electric subway.....	458,778	Sept. 1	347	84	56	1132
Reilly, John J., St. Louis, Mo. Valve.....	461,275	Oct. 13	1129	288	57	225
Reilly, Mary E., et al., executors. (See Reilly, Dennis J.)						
Reilly, Michael, et al. (See Fetherson, Joseph S., assignor.)						
Reilly, Michael E., Montesano, Wash. Razor-stop.....	452,112	May 12	1078	273	55	785
Reilly, Michael E., Montesano, Wash. Driving-calk.....	452,284	May 12	1351	336	55	837
Reilly, Michael E., Montesano, Wash. Ice-creeper.....	456,060	July 14	1206	317	56	237
Reilly, Michael E., Montesano, Wash. Window-sash.....	457,010	Aug. 4	121	30	56	557
Reilly, Patrick, Lima, Ohio. Railway brake-shoe.....	446,236	Feb. 10	1222	299	54	754
Reilly, Robert M., Baltimore, Md. Automatic flushing device for water-closets.....	450,376	Apr. 14	1118	274	55	220
Reimel, Frank, East Bangor, Pa. Snow-guard.....	463,235	Nov. 17	1613	420	57	881
Reimers, Dycke H., assignor of one-half to C. H. Stoelting, Chicago, Ill. Mechanical movement.....	465,948	Dec. 29	3100	793	57	1765
Rein, Gustavus, assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.....	449,761	Apr. 7	182	45	55	37
Rein, Gustavus, assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.....	449,762	Apr. 7	183	45	55	37
Rein, Gustavus, assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.....	450,036	Apr. 7	576	143	55	111
Rein, Gustavus, assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.....	450,918	Apr. 21	1970	483	55	398
Reinemann, Adolph, New York, N. Y. Heat-annunciator.....	450,425	Apr. 14	1191	291	55	234
Reinfeld, Alexander C., Vienna, Austria-Hungary. Electro-deposition and cathode therefor.....	454,381	June 16	1801	.....	55	1506
Reinhardt, James H., Brooklyn, assignor to New York Stencil Works, New York, N. Y. Hand numbering-machine.....	461,186	Oct. 13	979	252	57	194
Reinhold, Frank J., and A. W. Slayton, Detroit, Mich.; said Reinhold assignor to said Slayton. Odometer.....	450,380	Apr. 14	1122	275	55	221
Reinmann, Albert L. (See Dittmar and Falkenhäusen, assignors.)						
Reinmann, Albert L., New York, N. Y., assignor to Westinghouse Electric and Manufacturing Company. Incandescent electric lamp.....	460,991	Oct. 13	701	181	57	143

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Reinmann, Charles F., Brooklyn, N. Y. Device for raising and lowering incandescent electric lamps.....	448,164	Mar. 10	1442	369	54	1401
Reinmann, Joseph, Lanesborough, Pa. Fly-trap.....	456,342	July 21	1645	435	56	331
Reinohl, David C. (See Flanegin, Francis A., assignor.)						
Reins, William S. (See Seal, William B., assignor.)						
Reis, Ferdinand W. (See Graf, Robert R., assignor.)						
Reis, Mary T. (See Heidel, Gustavos, assignor.)						
Reisch, Michael, Buffalo, N. Y. Ratchet device.....	463,778	Nov. 24	2482	648	57	1055
Reiseger, Marc J. (See Van Deinsse and Reiseger.)						
Reisenegger, Hermann, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Black dye.....	450,037	Apr. 7	577	-----	55	112
Reiset, Frederic, and G. A. Waeber, New York, N. Y. Metal can.....	449,136	Mar. 31	3019	763	54	1728
Reiset, Frederic, and G. A. Waeber, New York, N. Y. Sheet-metal can.....	457,456	Aug. 11	881	228	56	704
Reiss & Brady. (See Saunier, Fernand, assignor.)						
Reiss, George T. (See Coes and Reiss.)						
Reiss, George T., assignor to Niles Tool Works, Hamilton, Ohio. Lubricating device.....	447,015	Feb. 24	2464	613	54	1018
Reiss, George T., assignor to Niles Tool Works, Hamilton, Ohio. Lubricator.....	452,318	May 12	1412	350	55	848
Reist, Elias, Hamburg, N. Y. Bag-fastener.....	461,848	Oct. 27	2126	524	57	429
Reiten Furnace Regulator Company. (See Colby, Edward J., assignor.)						
Reitz, Daniel G., Berlin, Pa. Split pulley.....	454,227	June 16	1565	412	55	1463
Rembert, Henry, Willis, assignor to Rembert Roller Compress Company, Galveston, Tex. } Apparatus for baling cotton.....	446,888	Feb. 24	2256	{ 561 562 }	{ 54 }	980
Rembert Roller Compress Company. (See Rembert, Henry, assignor.)						
Remington, George H., and J. T. Henthorn, Providence, R. I. Pump-valve.....	453,347	June 2	260	68	55	1197
Remington, George L., Philadelphia, Pa. Vault or analogous structure.....	453,279	June 2	153	43.44	55	1177
Remington, Horatio A., River Point, R. I. Loom.....	449,297	Mar. 31	3274	829	54	1774
Remington, John O., Hingham, assignor to Burr, Brown & Co., Boston, Mass. Curtain-pull.....	447,414	Mar. 3	234	60	54	1161
Remington Standard Type Writer Manufacturing Company. (See Baker, Walter, assignor.)						
Remington Standard Type Writer Manufacturing Company. (See Barron, Walter J., assignor.)						
Remington Standard Type Writer Manufacturing Company. (See Dodge, Walter S., assignor.)						
Remington Standard Type Writer Manufacturing Company. (See Jenne, William M., assignor.)						
Remington Standard Type Writer Manufacturing Company. (See Webb, George B., assignor.)						
Remmel, Michael. (See Meister and Remmel.)						
Remus, Teodor, Dresden, Germany. Manufacture of pasteboard articles.....	456,597	July 28	2064	546	56	418
Remy, Noah T. (See Cochenour and Remy.)						
Rendtorff, Hermann. (See Levy, Isaac M., assignor.)						
René, Waldemar, Council Bluffs, Iowa. Rein-holder.....	449,763	Apr. 7	184	46	55	37
Renetzky, Augustus, Lincoln, Nebr. Drilling-machine.....	460,401	Sept. 29	2915	729	56	1656
Renner, Edmund, and J. Hofbauer, Philadelphia, Pa. Meat-cutter.....	454,527	June 23	2029	525	55	1558
Rennerfelt, Gustaf O., Stockholm, Sweden. Soda-water apparatus.....	456,161	July 21	1355	{ 359 360 }	{ 56 }	277
Rennyson, William, Norristown, Pa. Type-writing machine.....	451,573	May 5	191	46	55	616
Reno, Jesse W., New York, N. Y. Method of and apparatus for constructing tunnels.....	466,046	Dec. 29	3290	{ 839 840 }	{ 57 }	1801
Reno, Joseph, Civil Bend, Mo., and M. W. Whayne, East View, Ky. Fruit-gatherer.....	462,386	Nov. 3	272	67	57	602
Renshaw, Elmer E., and T. J. Clanahan, Golconda, Ill. Ditching-machine.....	456,521	July 21	1946	{ 512 513 }	{ 56 }	388
Renshaw, Elmer E., and T. J. Clanahan, Golconda, Ill. Plow.....	456,522	July 21	1948	513	56	388
Renton, George W., Somers, assignor to F. N. Du Bois, New York, N. Y. Self-closing faucet.....	444,018	Jan. 6	53	15	54	14
Rentz, Barnum, Waco, Nebr. Door-check.....	448,767	Mar. 24	2455	614	54	1611
Repauno Chemical Company, et al. (See Schrader, John C., assignor.)						
Repetti, Joseph, Buena Vista, N. J. Motor.....	451,249	Apr. 28	2511	619	55	511
Repetti, Joseph, Buena Vista, N. J. Dough-mixer.....	460,992	Oct. 13	702	181	57	143
Replogle, Henry, Hastings, Mich. Spirit-level.....	462,736	Nov. 10	814	212	57	717
Reppmann, Albert, Moscow, Russia. Ballot-box.....	455,766	July 14	762	201	56	156
Reppy, Albert W., Oakland Pier, Cal. Electric-arc lamp.....	444,104	Jan. 6	194	48	54	40
Resow, Adolf T., assignor to Firm of Friedr. Krupp, Essen, Germany. Self-acting brake for gun-carriages.....	458,491	Aug. 25	2558	624	56	1038
Retan, Sylvester L., Hammondsport, N. Y. Gate.....	463,452	Nov. 17	1956	511	57	947
Retterer, Frederick. (See Miller, Jacob W., assignor.)						
Rettiger, David, Strong City, Kans. Stone-cutting machine.....	457,213	Aug. 4	442	116	56	616
Reuter, John P., Kaukauna, Wis. Mop-wringer.....	456,777	July 28	2376	624	56	477
Reuting, Henry. (See Steinbaugh, William F., assignor.)						
Revel, Antoine, Lyons, France. Umbrella-tip cup.....	457,607	Aug. 11	1119	285	56	750
Reversible Chair Company. (See Erb, Louis M., assignor.)						
Revolving Purifier Company. (See Anderson, William, assignor.)						
Revolving Purifier Company. (See Devonshire, Easton, assignor.)						
Rew, John S. (See Stahl and Rew.)						
Rew, Madison, Grinnell, Iowa, assignor of one-third to Chambers, Boring, Quinlan Company, Decatur, Ill. Combined hay rake and tedder.....	452,319	May 12	1413	{ 350 351 }	{ 55 }	849
Rex, George. (See Huth and Rex.)						
Reychler, Albert. (See De Wilde and Reychler.)						
Reynard, Henry H., Bellefontaine, Ohio. Cover for sugar-buckets.....	447,082	Feb. 24	2582	640	54	1040
Reynard, Fremont, Amherst, Nebr. Nut-lock.....	453,660	June 9	759	196	55	1299
Reynders, Charles, et al. (See Schoettl, Josef, assignor.)						
Reynders, John, et al. (See Schoettl, Josef, assignor.)						
Reynolds, Burton L., et al. (See Arnold, Willie H., assignor.)						
Reynolds, Charles D., Providence, R. I. Gem-setting.....	460,161	Sept. 29	2548	635	56	1585
Reynolds, Charles H., Yonkers, N. Y. Music-holder.....	456,638	July 28	2137	{ 565 566 }	{ 56 }	433
Reynolds, Daniel M. (See Slayden and Reynolds.)						
Reynolds, Earl H., Prophetstown, Ill. Grain-elevating apparatus for thrashing-machines.....	450,192	Apr. 14	797	202	55	162
Reynolds, Edmund D. and O. B., Brockton, Mass. Hay-tedder.....	449,948	Apr. 7	450	113	55	88
Reynolds, Edwin, Providence, R. I. Hand-stamp.....	446,587	Feb. 17	1769	{ 436 437 }	{ 54 }	876
Reynolds, Edwin, Milwaukee, Wis. Disconnecting device for eccentric-rods.....	448,259	Mar. 17	1614	412	54	1443
Reynolds, Edwin, Milwaukee, Wis. Drier.....	463,920	Nov. 24	2716	706	57	1099
Reynolds, Edwin, Brooklyn, N. Y. Flash steam-generator.....	461,985	Oct. 27	2347	582	57	472

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Reynolds, Edwin, A. J. Shaw, and W. H. Trout, assignors to E. P. Allis Company, Milwaukee, Wis. Saw-mill set-works	448,544	Mar. 17	2072	{ 519 520 }	54	1531
Reynolds, George H., New York, N. Y., assignor, by mesne assignments, to National Company, of Illinois. Controlling device for elevators.	456,121	July 14	1289	339	56	254
Reynolds, George H., New York, N. Y., assignor, by mesne assignments, to National Company, of Illinois. Controlling device for elevators.	456,122	July 14	1291	339	56	255
Reynolds, George H., New York, N. Y., assignor, by mesne assignments, to National Company, of Illinois. Controlling device for elevators.	456,123	July 14	1292	340	56	255
Reynolds, George H., New York, N. Y., assignor, by mesne assignments, to National Company, of Illinois. Means for controlling elevators	456,124	July 14	1293	340	56	256
Reynolds, George H., New York, N. Y., assignor, by mesne assignments, to National Company, of Illinois. Controlling device for elevators.	458,917	Sept. 1	576	140	56	1176
Reynolds, George H., assignor to American Electric Elevator Company, New York, N. Y. Electric hoisting-machine.	456,908	July 28	2594	682	56	517
Reynolds, George H., assignor to American Electric Elevator Company, New York, N. Y. Elevator.	458,429	Aug. 25	2457	598	56	1020
Reynolds, Henry S., Brooklyn, N. Y. Tool for plugging openings in boilers, &c.	447,351	Mar. 3	117	31	54	1140
Reynolds, Henry S., Brooklyn, N. Y. Tubular rivet and making the same.	459,650	Sept. 15	1763	443	56	1422
Reynolds, Herbert H., <i>et al.</i> (See Arnold, Willie H., assignor.)						
Reynolds, James. (See O'Connor, Patrick, assignor.)						
Reynolds, James M., Cohocton, N. Y. Fender for vehicle-wheels	459,651	Sept. 15	1764	444	56	1422
Reynolds, Jesse, assignor to W. T. Reynolds, Philadelphia, Pa. Water-back	448,995	Mar. 24	2792	706	54	1676
Reynolds, John H. (See Boles, Warren H., assignor.)						
Reynolds, John H. (See Burns, John, assignor.)						
Reynolds, Joseph W., and P. Perkins, Elkton, Ohio. Car-replacer	446,951	Feb. 24	2359	587	54	998
Reynolds, Lavern, Kansas City, Mo. Ironing-board attachment	449,172	Mar. 31	3067	775	54	1737
Reynolds, Lewis. (See Baker, George W., assignor.)						
Reynolds, Lowell M. (See Guild, Fred, assignor.)						
Reynolds, Milton C. (See Brown and Reynolds.)						
Reynolds, Oliver B. (See Reynolds, Edmund D. and O. B.)						
Reynolds, Stephen H., <i>et al.</i> (See Brüstle, Andrew, assignor.)						
Reynolds, Thomas. (See Wächter, Wesley N., assignor.)						
Reynolds, Thomas J., assignor of one-half to F. Nolan, Brooklyn, N. Y. Fire and water tube boiler	445,301	Jan. 27	2113	547	54	437
Reynolds, Walker B., Maybeury, W. Va. Nut-lock	458,492	Aug. 25	2560	624	56	1038
Reynolds, William H., Danvers, Mass. Blade-sharpener	453,661	June 9	760	196	55	1300
Reynolds, William T. (See Reynolds, Jesse, assignor.)						
Reynolds, William W., Philadelphia, Pa. Cover for coal-bunkers.	462,163	Oct. 27	2611	651	57	523
Reynolds, Willie H., Racine, Wis. Flour receiver and sifter	448,673	Mar. 24	2297	576	54	1581
Reynolds, Willie H., Racine, Wis. Safe	460,660	Oct. 6	200	51	57	42
Rheinstrom, Moses, Cincinnati, Ohio. Closing device for bottles, &c	447,974	Mar. 10	1162	294	54	1344
Rhentan, Abram A., assignor to W. H. Hill, Worcester, Mass. Drying mechanism for envelope-machines	451,412	Apr. 28	2752	681	55	557
Rhentan, Abram A., assignor to W. H. Hill, Worcester, Mass. Folder and presser for envelope-machines	453,389	June 2	318	83	55	1207
Rhentan, Abram A., assignor to W. H. Hill, Worcester, Mass. Folder and presser for envelope-machines	453,390	June 2	319	84	55	1208
Rhentan, Abram A., assignor to W. H. Hill, Worcester, Mass. Power-press.	457,132	Aug. 4	300	79	56	591
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Lamp-burner	445,082	Jan. 20	1774	457	54	362
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Argand lamp	454,528	June 23	2030	526	55	1558
Rhind, Frank, Meriden, Conn., assignor to C. S. Upton, New York, N. Y. Gas-burner	460,054	Sept. 22	2379	595	56	1546
Rhoades, Alonzo E., assignor to G. Draper & Sons, Hopedale, Mass. Loom	454,791	June 23	2443	{ 628 629 }	55	1636
Rhoades, Hal V. and W. H., Columbus, Ohio, assignors to Columbus Cycle Company, of Ohio. Bicycle	452,195	May 12	1216	{ 307 308 }	55	811
Rhoades, Leonard W., Northampton, assignor to Overman Wheel Company, Chicopee Falls, Mass. Velocipede	455,058	June 30	2956	752	55	1739
Rhoades, William H. (See Rhoades, Hal V. and W. H.)						
Rhoads, William S., <i>et al.</i> (See Parker, James, assignor.)						
Rhode Island Horse Shoe Company. (See Perkins, Charles H., assignor.)						
Rhodes, Daniel, Altoona, Pa. Nut-lock	451,072	Apr. 28	2210	547	55	453
Rhodes, James B., Grand Rapids, Mich. Saw-tooth swage	445,339	Jan. 27	2173	563	54	450
Rhodes, James B., Grand Rapids, Mich. Saw-swaging machine	449,431	Mar. 31	3530	889	54	1821
Rhodes, James C., Jr. (See Grant, John S., assignor.)						
Rhodes, James L., Kemper, Ill. Grass-seeding machine	452,803	May 26	2195	551	55	1016
Rhodes, John W., Havana, Ill. Seeding-machine wheel	459,979	Sept. 22	2265	568	56	1524
Rhodes, Vernon, Memphis, Tenn. Perforated blade for plows, &c	447,437	Mar. 3	271	69	54	1169
Rhodes, William H., assignor to Curtis Sons and Co., Manchester, England. Mule and twiner for spinning and doubling cotton or other fibrous substances	448,077	Mar. 10	1313	336	54	1375
Rhoner & Co., Frank. (See Willershausen, Siegfried, assignor.)						
Ribard, Paul, Toulon, France. Oil-press	458,002	Aug. 18	1775	464	56	883
Ricardo, George, Hackensack, N. J. Mole-trap	458,493	Aug. 25	2561	624	56	1039
Rice, A. C., administrator. (See Poet, John.)						
Rice, Alva C., assignor to Stilwell & Burce Manufacturing Company, Dayton, Ohio. Friction-clutch	456,909	July 28	2597	683	56	517
Rice, Darius C., and H. A. Gore, assignors to Goshen Folding Bed Company, Goshen, Ind. Folding bed	460,217	Sept. 29	2631	657	56	1602
Rice, David, assignor to A. M. R. Fitzsimmons, Reading, Mich. Carpet-stretcher	452,508	May 19	1730	436	55	916
Rice, David H. (See Currier and Rice.)						
Rice, David H., Lowell, Mass., assignor to Currier Telephone Bell Company, of Massachusetts. Telephone call	446,614	Feb. 17	1804	{ 445 446 447 }	54	883
Rice, David H., Lowell, Mass., assignor to Currier Telephone Bell Company, of Massachusetts. Electric call-bell	446,712	Feb. 17	1961	488	54	913
Rice, Edwin W., Jr. (See Thomson and Rice.)						
Rice, Edwin W., Jr., Lynn, Mass. Mounting for electric-car motors	444,922	Jan. 20	1530	393	54	314
Rice, Edwin W., Jr., Lynn, Mass. Motor-suspension for railway work	448,260	Mar. 17	1615	412	54	1443
Rice, Edwin W., Jr., Lynn, Mass. Electric meter	451,520	May 5	110	27, 28	55	600
Rice, Edwin W., Jr., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Commutator-brush	447,352	Mar. 3	119	31	54	1140
Rice, Edwin W., Jr., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Combined switch and lightning-arrester	451,521	May 5	113	28, 29	55	601
Rice, Edwin W., Jr., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric railway	455,454	July 7	245	62	56	49

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Rice, Edwin W., Jr., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric cut-off apparatus.....	455,800	July 14	824	215	56	167
Rice, Edwin W., Jr., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Armature for dynamo-electric machines.....	455,887	July 14	954	249	56	191
Rice, Edwin W., Jr., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. System of electrical distribution.....	460,364	Sept. 29	2867	716	56	1647
Rice, Edwin W., Jr., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric fuse cut-out.....	462,452	Nov. 3	368	91	57	621
Rice, Edwin W., Jr., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric cut-out.....	463,770	Nov. 24	2473	646	57	1053
Rice, Edwin W., Jr., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric-motor switch.....	465,292	Dec. 15	2045	522	57	1542
Rice, Frederick J., Toronto, Canada. Window-sash.....	462,932	Nov. 10	1148	297	57	781
Rice, George L., assignor to W. Deering & Company, Chicago, Ill. Paper twine for use upon grain-binding machinery.....	451,773	May 5	507	125	55	674
Rice, James E. (See Brastow and Rice.)						
Rice, John M. (See Thorp, Thomas J., assignor.)						
Rice, John O., Hutchinson, Minn. Well.....	447,646	Mar. 3	606	149	54	1232
Rice, John V., Jr., assignor of one-half to J. A. Taylor, Wilmington, Del. Eugino.....	459,884	Sept. 22	2131	535 536	56	1500
Rice, John V., Jr., Chester, Pa. Steam-engine.....	465,099	Dec. 15	1732	440	57	1484
Rice, John V., Jr., Chester, Pa. Steam-engine.....	465,100	Dec. 15	1737	441	57	1485
Rice, Lewis C., Denver, Colo. Dynamo-electric machine.....	451,574	May 5	193	47	55	616
Rice, Lewis J., Indianapolis, Ind. Hose-coupling.....	458,038	Aug. 18	1822	475	56	893
Rice, Nelson, New Market, Ind. Fence.....	448,545	Mar. 17	2076	521	54	1532
Rice, Robert F., Hartford, Conn. Safety check-valve.....	466,022	Dec. 29	3251	828	57	1793
Rice, Robert H., et al. (See Christy, Russ J., assignor.)						
Rice, Viets L., New York, N. Y. Grinding-mill.....	445,821	Feb. 3	518	124	54	612
Rice, William H., Syracuse, N. Y. Saw-guide.....	444,851	Jan. 20	1368	354	54	284
Rich, Benjamin F., Spanish Fort, Tex. Mowing-machine.....	459,018	Sept. 8	739	179 180	56	1217
Rich, Charles C., Mount Vernon, N. Y. Electric heater.....	447,353	Mar. 3	120	32	54	1140
Rich, George H., Chicago, Ill. Saw-jointer.....	451,235	Apr. 28	2499	614	55	506
Rich, George H., Chicago, Ill. Coffee-separator.....	451,236	Apr. 28	2490	614	55	507
Rich, Herman G., Bond Hill, Ohio. Advertising device.....	454,292	June 16	1662	436	55	1482
Rich, Jacob A. (See Ferguson, James O., assignor.)						
Rich, John G. (See Gregory, Fred L., assignor.)						
Rich, John G. (See Hinckley, Henry D., assignor.)						
Rich, John G. (See Richards, Francis H., assignor.)						
Rich, Willard G. (See Sager, James H., assignor.)						
Richard, Elias J., Selma, Ala. Register-sheet.....	446,952	Feb. 24	2360	587	54	998
Richard, George D., Chicago, Ill. Clothes-wringer.....	453,348	June 2	261	69	55	1197
Richard, Jean E., New York, N. Y. Ice breaker or cracker.....	464,039	Dec. 1	48	13, 14	57	1146
Richard, Samuel W. (See Fant, Anderson, and Richard.)						
Richards, Emanuel, Goodland, Kans. Buggy-heater.....	457,214	Aug. 4	444	116	56	616
Richards, Ephraim S., Marion, Ind. Band-saw mill.....	446,293	Feb. 10	1316	321	54	772
Richards, Erwin H., Norwalk, Ohio, assignor to M. Bradley Company, Springfield, Mass. Device for playing games of skill.....	448,574	Mar. 17	2121	531	54	1540
Richards, Francis H. (See Cooley and Richards.)						
Richards, Francis H., Hartford, Conn. Envelope-machine.....	444,852	Jan. 20	1369	354 355 356 357 358 359 360 361 362 363 364 365 625 626 627	54	284
Richards, Francis H., Hartford, Conn. Automatic grain-scale.....	465,535	Dec. 22	2454	625 626 627	57	1630
Richards, Francis H., Hartford, Conn., assignor to E. B. Cox, Drifton, Pa. Pneumatic motor.....	445,601	Feb. 3	127	33	54	536
Richards, Francis H., Hartford, Conn., assignor to E. B. Cox, Drifton, Pa. Pneumatic motor.....	445,602	Feb. 3	128	33	54	536
Richards, Francis H., Hartford, Conn., assignor to E. B. Cox, Drifton, Pa. Apparatus for supplying compressed air to pneumatic motors.....	446,822	Feb. 17	2130	529	54	949
Richards, Francis H., Hartford, Conn., assignor to E. B. Cox, Drifton, Pa. Frictional reversing-gearing.....	446,927	Feb. 24	2328	578	54	992
Richards, Francis H., Hartford, Conn., assignor to E. B. Cox, Drifton, Pa. Compressed-air tramway system.....	452,051	May 12	957	244	55	766
Richards, Francis H., Hartford, Conn., assignor to E. B. Cox, Drifton, Pa. Compressed-air tramway system.....	452,052	May 12	959	244 245	55	766
Richards, Francis H., Hartford, Conn., assignor to E. B. Cox, Drifton, Pa. Multiple drilling-machine.....	452,053	May 12	962	245 246 247	55	767
Richards, Francis H., Hartford, Conn., assignor to E. B. Cox, Drifton, Pa. Feed mechanism.....	452,431	May 19	1602	398	55	894
Richards, Francis H., Hartford, Conn., assignor to E. B. Cox, Drifton, Pa. Drilling-machine.....	460,692	Oct. 6	262	64	57	52
Richards, Francis H., Hartford, Conn., assignor to E. B. Cox, Drifton, Pa. Air-compressor.....	462,776	Nov. 10	879	230	57	729
Richards, Francis H., Hartford, assignor to Traut & Hine Manufacturing Company, New Britain, Conn. Suspenders.....	446,840	Feb. 17	2161	537	54	954
Richards, Francis H., Hartford, assignor to Traut & Hine Manufacturing Company, New Britain, Conn. Suspenders.....	456,523	July 21	1949	513	56	388
Richards, Francis H., assignor to Pratt & Whitney Company, Hartford, Conn. Regulator grain-weigher.....	447,354	Mar. 3	121	32 33 34	54	1141
Richards, Francis H., assignor to Pratt & Whitney Company, Hartford, Conn. Register for grain-weighers.....	447,719	Mar. 3	706	176 177	54	1251
Richards, Francis H., Hartford, Conn., assignor to J. G. Rich, Auburn, N. Y. Vending-machine.....	455,496	July 7	307	78, 79	56	62

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Richards, Frank J. (See Dunott, Joseph, assignor.)						
Richards, George H., assignor of one-half to W. Nuneviller, Philadelphia, Pa. Cabinet for photographic-plate holders, negatives, and stock.	445,861	Feb. 3	577	140	54	624
Richards, George H., assignor, by mesne assignments, to A. J. Lamborn, Philadelphia, Pa. Photographic vignetting attachment.	450,938	Sept. 22	2213	556	56	1515
Richards, Horace P., West Pittston, Pa. Vehicle-pole tip.	461,163	Oct. 13	941	243	57	187
Richards, Hubert P., assignor to Traut & Hine Manufacturing Company, New Britain, Conn. Hook.	463,974	Nov. 24	2798	725	57	1115
Richards, J. H., et al. (See Marley, Patrick, assignor.)						
Richards, Joseph W., Philadelphia, Pa. Refining zinc.	448,802	Mar. 24	2505	.....	54	1621
Richards, Joseph W., Philadelphia, Pa. Manufacture of galvanized iron.	456,204	July 21	1422	.....	56	289
Richards, Marcus C., assignor of one-half to Wilcox Manufacturing Company, Aurora, Ill. Door-check.	444,019	Jan. 6	54	15	54	14
Richards, Percival D., West Medford, assignor of one-half to C. H. Delano, Woburn, Mass. Circuit-closer.	458,343	Aug. 25	2321	567	56	995
Richards, Philip, Plymouth, Pa. Coal-crushing machine.	466,185	Dec. 29	3499	893	57	1842
Richards, Walter S., Natick, assignor of one-half to G. B. James, Boston, Mass. Arc-lamp electrode.	458,376	Aug. 25	2377	580	56	1004
Richards, Walter S., Natick, assignor of one-half to G. B. James, Boston, Mass. System of electrical propulsion for vehicles.	458,377	Aug. 25	2378	580	56	1004
Richards, Willard F., Pittsburg, Pa. Fluid-graduating device.	445,254	Jan. 27	2055	{ 529 530 }	54	425
Richards, Willard F., Pittsburg, Pa. Car-brake mechanism.	460,162	Sept. 29	2549	{ 635 636 }	56	1585
Richards, William, Big Springs, Ohio. Car-coupling.	460,402	Sept. 29	2917	729	56	1656
Richards, William G., Boston, Mass. Casting.	451,900	May 5	685	173	55	709
Richards, William G., Boston, Mass. Method of and mold for casting wheels.	451,901	May 5	687	173	55	709
Richards, William G., Boston, Mass., assignor, by mesne assignments, to American Steel Wheel Company, of New Jersey. Casting steel wheels.	451,575	May 5	194	47	55	616
Richards, William G., Boston, Mass., assignor, by mesne assignments, to American Steel Wheel Company, of New Jersey. Molder's flask.	451,576	May 5	197	47	55	617
Richards, William G., Boston, Mass., assignor, by mesne assignments, to American Steel Wheel Company, of New Jersey. Molder's flask.	451,577	May 5	198	48	55	617
Richards, William G., Boston, Mass., assignor, by mesne assignments, to American Steel Wheel Company, of New Jersey. Car-wheel mold.	451,578	May 5	200	48	55	617
Richards, William G., Boston, Mass., assignor, by mesne assignments, to American Steel Wheel Company, of New Jersey. Casting steel wheels.	461,962	Oct. 27	2314	574	57	466
Richards, William G., Boston, Mass., assignor to American Steel Wheel Company, of New Jersey. Mold for making castings.	459,047	Sept. 8	788	191	56	1226
Richards, William G., Boston, Mass., assignor to American Steel Wheel Company, of New Jersey. Casting steel car-wheels.	459,048	Sept. 8	790	191	56	1227
Richards, William G., Boston, Mass., assignor to American Steel Wheel Company, of New Jersey. Mold for making flanged wheel-castings.	459,049	Sept. 8	791	191	56	1227
Richards, William G., Boston, Mass., assignor to American Steel Wheel Company of New Jersey. Manufacture of annealed steel wheels.	461,593	Oct. 20	1711	418	57	342
Richards, William N., assignor of nine-twentieths to J. D. Alden, Lyons, N. Y. Self-countersinking screw.	465,101	Dec. 15	1742	441	57	1486
Richardson, Agnes A. C., et al. (See De Long, Frank E., assignor.)						
Richardson, Albert C., South Frankfort, assignor of one-half to L. Barnes, Benzonia, Mich. Churn.	446,470	Feb. 17	1595	392	54	842
Richardson, Almer F. (See Cunningham, Frank R., assignor.)						
Richardson & Boynton Company. (See Shackleton, Joseph, assignor.)						
Richardson, Charles J., Gateshead-on-Tyne, England. Register for paper-making machines.	456,061	July 14	1207	318	56	238
Richardson, Daniel. (See Anderson, George R., assignor.)						
Richardson & De Long Brothers. (See De Long, Frank E., assignor.)						
Richardson, Dwight S. (See Mackay, William M., assignor.)						
Richardson Engine and Steamship Company. (See Richardson, Samuel T., assignor.)						
Richardson, Everett P., Lawrence, Mass., assignor to Stanley Manufacturing Company, Portland, Me. Heel-burnishing machine.	455,871	July 14	927	243	56	187
Richardson, Everett P., Lawrence, Mass., assignor to Tapley Machine Company, Portland, Me. Heel-burnishing machine.	466,258	Dec. 29	3612	924	57	1863
Richardson, Frank E., Cazenovia, N. Y. Cash register and recorder.	464,257	Dec. 1	399	95.96	57	1210
Richardson, George, Washington, D. C. Manufacturing artificial stone, &c.	461,888	Oct. 27	2190	540	57	442
Richardson, George, Washington, D. C. Machine for solidifying concrete mixtures.	461,889	Oct. 27	2191	{ 540 541 }	57	442
Richardson, George, Washington, D. C. Concrete block and making the same.	461,890	Oct. 27	2194	541	57	443
Richardson, George F. (See Speirs, John, assignor.)	461,891	Oct. 27	2196	542	57	443
Richardson, George H., Old Town, Me. Pen-holder.	444,304	Jan. 6	507	132	54	101
Richardson, George R., Earlville, Ill. Ironing-table.	446,928	Feb. 24	2330	578	54	993
Richardson, Gordon M., Chicago, Ill. Stove-board.	461,876	Oct. 27	2172	536	57	439
Richardson, Henry A. (See Smith, George B., assignor.)						
Richardson, Henry D., assignor to Wallace & Sons, Ansonia, Conn. Suspension device for lamps, &c.	464,763	Dec. 8	1174	292	57	1367
Richardson, James, North Tarrytown, N. Y. Type-writing machine.	448,996	Mar. 24	2793	707	54	1676
Richardson, James, North Tarrytown, and F. E. Heath, New York, N. Y. Adding-machine.	453,507	June 2	519	{ 133 134 }	55	1246
Richardson, John S., Lowell, Mass. Parcel-carrying apparatus.	451,602	May 5	236	56	55	621
Richardson, John S., Lowell, assignor to G. Draper & Sons, Hopedale, Mass. Bobbin-holder for spooling machines.	457,011	Aug. 4	122	30	56	557
Richardson, John T., Harrisburg, assignor of one-half to A. H. Ege, Mechanicsburg, Pa. Rail-joint support.	448,730	Mar. 24	2394	599	54	1599
Richardson, John T., Harrisburg, assignor of one-half to A. H. Ege, Mechanicsburg, Pa. Railway-switch stand.	456,125	July 14	1294	340	56	256
Richardson, John W., et al. (See Helmond, Peter, assignor.)						
Richardson, John W., Marion, Va. Automatic railway-signal.	452,225	May 12	1352	337	55	838
Richardson, Julius C., Jamestown, N. Y. Nut-lock.	450,377	Apr. 14	1120	274	55	220
Richardson, Julius C., Jamestown, N. Y. Nut-blank bar.	461,932	Oct. 27	2273	563	57	458
Richardson, Julius C., Jamestown, N. Y. Hammer.	464,891	Dec. 8	1300	342	57	1404
Richardson, Lancelot. (See Brasnahan, Richardson, and Fritsch.)						
Richardson, Lewis C., assignor of one-half to C. D. Shellabarger, Indianapolis, Ind. Broom.	454,792	June 23	2448	629	55	1637
Richardson, Lewis H., Boston, Mass. Envelope-opener.	460,993	Oct. 13	703	181	57	144
Richardson, Millard F., Sr., assignor of one-half to W. W. Snyder and S. W. Leonard, Liberty, Ind. Molding-flask.	455,293	June 30	3367	849	55	1819

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Richardson, Robert D., Winnipeg, and C. A. Sadleir, Toronto, Canada. Indexed file	444,853	Jan. 20	1407	366	54	291
Richardson, Robert R., Portland, Oreg. Mail-wagon	463,453	Nov. 17	1957	511	57	947
Richardson, Samuel T., assignor to Richardson Engine and Steamship Company, Baltimore, Md. Steam-engine	456,848	July 28	2493	{ 655 656 }	{ 56 56 }	498
Richardson, Samuel T., assignor to Richardson Engine and Steamship Company, Baltimore, Md. Construction of vessels	456,849	July 28	2499	656	56	499
Richardson, Thomas D. (See Miller, William P., assignor.)						
Richardson, Thomas D., <i>et al.</i> (See Whiting, William S., assignor.)						
Richardson, William, <i>et al.</i> (See Arnold, Oliver, assignor.)						
Richardson, William H. (See Penny and Richardson.)						
Richardson, William H. (See Platt and Richardson.)						
Richardson, William S., Boston, Mass. Fastening	446,139	Feb. 10	1031	254	54	719
Richardson, Willie A., Worcester, Mass. Cloth-folding machine	456,851	July 28	2505	657	56	500
Richey, James, Cincinnati, Ohio. Coffin-lid fastener	463,690	Nov. 24	2357	617	57	1031
Richmann, Henry, Santa Cruz, Cal. Rotary air compressor and pump	459,527	Sept. 15	1554	387	56	1382
Richmann, Henry, Santa Cruz, Cal. Rotary air compressor and pump	462,453	Nov. 3	370	92	57	621
Richmond, C. E., <i>et al.</i> (See Murdock, Horace B., assignor.)						
Richmond, Cassius M., New York, N. Y. Burner for lamps	444,854	Jan. 20	1409	366	54	291
Richmond, Cassius M., New York, N. Y. Oil lamp and burner	454,686	June 23	2293	587	55	1606
Richmond, Cassius M., assignor to Carroll Aluminum Manufacturing Company, New York, N. Y. Hand-piece for dental engines	450,682	Apr. 21	1611	387	55	331
Richmond City Mill Works. (See Mawhood, Jonathan D., assignor.)						
Richmond, E. D., <i>et al.</i> (See Hicks, Thomas H., assignor.)						
Richmond, James W., assignor of one-half to E. M. Sweeney, South Hanover, Mass. Sole-molding machine	447,739	Mar. 3	739	{ 185 186 585 586 }	{ 54 56 }	1257
Richmond, John O., Hart, Mich. Combined desk and easel	460,032	Sept. 22	2337		56	1539
Richmond, Joseph. (See Johnson, Chester, assignor.)						
Richmond Manufacturing Company. (See McGill, James, assignor.)						
Richmond Manufacturing Company. (See McGill and Ryan, assignors.)						
Richmond, Robert N. (See Baumann, Hermann, assignor.)						
Richmond & Seymour Manufacturing Company. (See De Neut, John H., assignor.)						
Richmond, Thomas. (See Hitchen, Pearson, and Richmond.)						
Richter, Adolph. (See Straube and Richter.)						
Richter, Adolph, New York, N. Y. Apparatus for generating gas	464,040	Dec. 1	49	14	57	1146
Richter, Ernst. (See Gray and Richter.)						
Richter, Hermann J., Dresden, Germany, assignor to M. Wackernagel. Wagon	461,085	Oct. 13	834	215	57	167
Richter, Paul E., assignor to J. H. Allen, New York, N. Y. Street letter-box	461,381	Oct. 13	1311	331	57	261
Richter, Paul K. (See Weatherston and Richter.)						
Richters, Engelbert, Saarau, Germany. Making artificial cryolite	447,063	Feb. 24	2554		54	1035
Richters, Henry D. (See Mershon and Richters.)						
Richwine, William, Philadelphia, Pa. Tire for bicycles	459,614	Sept. 15	1694	425	56	1408
Richards, John E., Birmingham, England. Cigar-machine	444,768	Jan. 13	1239	322	54	250
Richards, Ross. (See Lamborn and Richards.)						
Ricker, Henry E., Meadowvale, assignor of one-third to T. R. Earney, Brampton, Canada. Car-coupling	460,382	Sept. 29	2889	722	56	1651
Ricketts, James R., assignor of one-half to J. H. White, Henderson's Cross Roads, Tenn. Water-engine	463,583	Nov. 17	2171	573	57	988
Ricketts, John L., Philadelphia, Pa. Electric indicator	451,226	Apr. 28	2471	610	55	502
Ricketts, Pierre D., and E. R. Bush, New York, N. Y. Assay-furnace	463,712	Nov. 24	2394	628	57	1038
Ricketts, William, Cranston, R. I. Gage	447,203	Feb. 24	2803	693	54	1081
Ricks, John W., <i>et al.</i> (See Shaft, Henry S., assignor.)						
Ricks, John W., and H. S. Shaft, assignors of one-third to H. P. Shutts, Gloversville, N. Y. Loooper for sewing-machines	456,383	July 21	1723	456	56	345
Ricks, Tillmon P., San Marcos, Tex. Meat-cutter	463,255	Nov. 17	1647	429	57	887
Ricks, William F., <i>et al.</i> (See McCloskie, John, assignor.)						
Riddel, Tice S., Eugene, Oreg. Fence-post	448,078	Mar. 10	1313	336	54	1376
Riddell, Edward H. (See Davis and Riddell.)						
Riddell, John, Lynn, assignor of one-half to G. F. Greenwood, Boston, Mass. Variable transmitting mechanism	464,895	Dec. 8	1361	342	57	1404
Riddell, John, Lynn, assignor of one-half to G. F. Greenwood, Boston, Mass. Composite pinion	464,896	Dec. 8	1362	342	57	1404
Riddell, Joseph, and R. G. Morrison, Sharon, Pa. Gas-burner	457,750	Aug. 11	1348	349	56	797
Ridder, Mathias J., and V. Hartmann, Germantown, Nebr. Wire-stretcher	446,790	Feb. 17	2074	517	54	936
Riddle, William N., Crowley, Tex. Eight-lens telescope	451,134	Apr. 28	2308	571	55	473
Ridenour, Frank C., Ross, Iowa. Wagon end-gate	465,728	Dec. 22	2741	699	57	1686
Ridenour, Samuel D., Lima, Ohio. Carpet-fastener	452,286	May 12	1356	337	55	838
Rider, Charles E. (See Beisheim, Henry, assignor.)						
Rider, Thomas F., <i>et al.</i> (See Devore, Morris H., assignor.)						
Ridge, Willis G., assignor of one-half to C. A. Hildreth, New Haven, Conn. Pipe-coupling for railway-cars	448,261	Mar. 17	1617	{ 412 413 }	{ 54 54 }	1444
Ridgway, Edward A. (See Ridgway, John and E. A.)						
Ridgway, John and E. A., Stoke-on-Trent, county of Stafford, England. Applying lithographic impressions to pottery-ware	444,898	Jan. 20	1478		54	305
Ridgway, William H., Coatesville, Pa. Jet or impact water-wheel	453,449	June 2	438	{ 112 113 }	{ 55 55 }	1231
Ridley, Eugene C., assignor to E. A. Hartman, Weatherford, Tex. Mattress-press	456,162	July 21	1357	360	56	277
Ridout, Donald C., trustee. (See Ripston, John D., assignor.)						
Riecker, Charles E. (See Traut and Riecker.)						
Rieckert, Herman A. J., New York, N. Y. Envelope	444,651	Jan. 13	1043	271	54	214
Rieckert, Herman A. J., New York, N. Y. Door-check	450,496	Apr. 14	1293	317	55	254
Rieckert, Herman A. J., New York, N. Y. Spring-hinge	453,503	June 2	514	132	55	1245
Rieckert, Herman A. J., New York, N. Y. Knockdown shelving	453,504	June 2	515	133	55	1245
Riedel, T. D. (See Lütke and Scholvien, assignors.)						
Riedel, William, Baker, Kans. Coin-conveyer	449,703	Apr. 7	91	24	55	20
Rieder, John J., Fredericksburg, Ohio. Screen	448,370	Mar. 17	1812	457	54	1481
Riedle, Frank. (See Schneider, John G., assignor.)						
Riedler, Alois, Berlin, Germany. Valve-gear	459,515	Sept. 15	1530	382	56	1378
Rieley, Jerry L., Troutville, Va. Harvester cutter-bar	453,705	June 9	840	217	55	1314
Rieley, Owen J., Grand Rapids, Mich. Back-stay protector	459,766	Sept. 22	1940	489	56	1463
Riemann, Henry A. (See Patterson, Robert L., assignor.)						
Ries, Elias E., Baltimore, Md. Portable electric welding apparatus	444,855	Jan. 20	1410	367	54	292
Ries, Elias E., Baltimore, Md. Apparatus for hardening and tempering steel and iron	453,162	May 26	2783	700	55	1127

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Ries, Elias E., Baltimore, Md. Method of and apparatus for hardening and tempering steel and iron	453,163	May 26	2787	700	55	1128
Ries, Elias E., Baltimore, Md. Repairing metal structures by the aid of electricity	453,164	May 26	2791	701	55	1128
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Braking trains	452,041	May 12	937	240 241	55	763
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Electric riveting apparatus.	452,042	May 12	942	241 116 117 118 119	55	764
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Method of and apparatus for operating electric railways by dynamic induction	458,859	Sept. 1	481	116 117 118 119	56	1157
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Riveting by electricity	465,089	Dec. 15	1715	436	57	1481
Ries, Frederick C., Macon, Ga. Watch-maker's balance-pliers	461,393	Oct. 13	1331	336	57	265
Ries & Henderson. (See Ries, Elias E., assignor.)						
Ries, Johann G. (See Grunellich, Friedrich W., assignor.)						
Riess, Rudolph W., Philadelphia, Pa. Steering device for velocipedes	448,850	Mar. 24	2580	648	54	1635
Riess, Rudolph W., Philadelphia, Pa. Attachment for bicycles	453,713	June 9	849	219	55	1316
Riester, Emily M., Buffalo, N. Y. Combined skylight and ventilator	465,889	Dec. 29	3013	771	57	1748
Rife, John M., Troy, Ohio. Fence-post	447,204	Feb. 24	2804	693	54	1081
Rife & Co., M. A., et al. (See Hartigan, Joseph F., assignor.)						
Rigal, Louis, Roquefort, France. Perforating Roquefort and other cheeses	448,371	Mar. 17	1813	.....	54	1482
Rigby, Clark F., Coraopolis, Pa. Drill-jar	466,259	Dec. 29	3615	925	57	1863
Riggs, Alfred P., Colorado City, Colo. Slack take-up for air-brakes	457,215	Aug. 4	445	117	56	616
Riggs, Alfred P., Colorado City, Colo. Auxiliary regulating valve mechanism for air-brakes	457,670	Aug. 11	1208	310 311	56	767
Riggs, John D., Detroit, Mich. Woven-wire farm-fence	460,218	Sept. 29	2633	657	56	1603
Riggs, Lewis S., Selma, Ala. Automatic cut-in valve for air-brakes	453,505	June 2	516	133	55	1245
Rightmire, Harry C., Philadelphia, Pa. Knitting-machine	457,868	Aug. 18	1539	400	56	839
Rightmire, Harry C., Havre de Grace, Md., assignor of one-half to T. A. Pearce, Philadelphia, Pa. Stocking and making the same	465,678	Dec. 22	2678	683	57	1673
Riker, Andrew L., New York, N. Y. Electric motor or generator	452,717	May 19	2061	519	55	981
Riker, Andrew L., New York, N. Y. Bipolar dynamo or motor	452,718	May 19	2062	519	55	981
Riker, Andrew L., New York, N. Y. Multipolar dynamo	455,517	July 7	342	88	56	68
Riker, Andrew L., New York, N. Y. Carbon brush and holder therefor	455,518	July 7	344	88	56	68
Riker, Charles E. (See Kassel, Edward T., assignor.)						
Riley, James, Glasgow, Scotland. Basic-hearth steel-making furnace	464,229	Dec. 1	351	85	57	1200
Riley, John M., Harrison, N. J. Means for lubricating saw-mandrels	464,943	Dec. 8	1432	360	57	1419
Riley, John M., assignor to M. A. Riley, Newark, N. J. Electric comb	458,952	Sept. 1	625	154	56	1187
Riley, John M., assignor to M. A. Riley, Kearney, N. J. Electric comb	458,953	Sept. 1	626	154	56	1187
Riley, Margaret A. (See Riley, John M., assignor.)						
Riley, Napoleon B., Allensville, Ky. Combined hame and horse-collar	456,850	July 28	2502	657	56	499
Riley, William W., Cornwall, Conn. Life-saving apparatus	445,609	Feb. 3	142	37	54	539
Rimmer, Joseph, Somerville, assignor to G. W. Bent, Hyde Park, Mass. Sofa-bed or lounge	464,656	Dec. 8	998	249	57	1336
Rinehart, Bentley L., Camden, N. J. Steam boiler or generator	453,391	June 2	321	84	55	1208
Rinfret, Raoul, St. Stanislas, Canada. Canoe-yoke	451,579	May 5	203	48	55	618
Ring, Henry H., Lairdsville, assignor to Waldron & Sprout, Muncy, Pa. Rotary belt	458,494	Aug. 25	2562	625	56	1039
Ring, Henry H., Lairdsville, assignor to Waldron & Sprout, Muncy, Pa. Grain-scourer	458,495	Aug. 25	2565	625	56	1040
Ring, Henry H., Lairdsville, assignor to Waldron & Sprout, Muncy, Pa. Grain separator and cleaner	459,552	Sept. 15	1591	398 399	56	1390
Ring, John. (See Fitzpatrick and Ring.)						
Ring, Williamson M. (See Anness and Ring.)						
Ringo, Birt, assignor to C. Wade and J. C. Buckner, Mexico, Mo. Folding bed	459,819	Sept. 22	2025	507 508	56	1479
Rings, Julius A., New York, N. Y. Curtain-pole ring	460,793	Oct. 6	410	100	57	81
Rink, Peter, Gowanda, N. Y. Portable shelving	454,293	June 16	1664	437	55	1482
Rinn, Charles E. et al. (See Taylor, Alfred P., assignor.)						
Rion, Patrick, Chicago, Ill. Remedial cosmetic	450,038	Apr. 7	577	.....	55	112
Riopelle, Charles H. (See Goodrich, Egbert C., assignor.)						
Ripley & Co. (See Croskey and Ripley, assignors.)						
Ripley, Daniel C. (See Croskey and Ripley.)						
Ripley, Daniel C., Pittsburg, Pa. Manufacture of glassware	458,189	Aug. 25	2047	531	56	943
Ripley, Daniel C., Pittsburg, Pa. Machine for blowing glassware	458,190	Aug. 25	2048	531	56	944
Ripley, Daniel C., Pittsburg, Pa. Machine for forming glassware	458,191	Aug. 25	2051	532	56	944
Ripley, Daniel C., Pittsburg, Pa. Pneumatic machine for forming glassware	461,489	Oct. 20	1544	379	57	311
Ripley, Frederick P., assignor of one-half to J. Stark, Waltham, Mass. Stem winding and setting mechanism	455,025	June 30	2895	736	55	1728
Ripley, John C. F., Wheeling, W. Va. Combined car and air-brake coupling	451,654	May 5	323	78	55	640
Ripplin, Charles, St. Louis, Mo. Grain-scourer	451,580	May 5	204	49	55	618
Ripple, Ezra H., and A. D. Williams, Scranton, Pa. Convertible trunk	460,759	Oct. 6	358	88	57	70
Ripson, John D., assignor to D. C. Ridout, trustee, Toronto, Canada. Fabric for covering moldings, &c.	445,434	Jan. 27	2309	599	54	477
Ris, Christopher, assignor to J. R. Geigy & Co., Basle, Switzerland. Brown dye-stuff	455,952	July 14	1052	.....	56	209
Risdon, Charles R., New York, N. Y. Umbrella rack or stand	449,173	Mar. 31	3069	776	54	1738
Risdon Iron Works. (See Fraser, Andrew, assignor.)						
Risdon Iron Works. (See Schierholz, August H., assignor.)						
Rishel, George P., Hornellsville, N. Y. Mechanism for forming wire strands	453,066	May 26	2622	662 663	55	1097
Rison, Marcellus H., Paris, Tenn. Fan	458,068	Aug. 18	1865	486	56	901
Ritch, Milton M., and B. Bryant, Laurinburg, N. C. Carriage-curtain fastener	462,737	Nov. 10	814	213	57	717
Ritchie, David A., Cambridge, Mass. Pipe-forming machine	445,202	Jan. 27	1972	510	54	409
Ritchie, David A., Cambridge, Mass. Machine for seaming the flanged edges of metallic elbows	463,408	Nov. 17	1902	497	57	935
Ritchie, Foster, Highland Park, assignor to M. A. Knapp, Chicago, Ill. Annunciator	459,615	Sept. 15	1695	425	56	1408
Ritchie, William C. (See Knowlton and Pease, assignors.)						
Ritscher, Adam, Taylorville, Ill. Combined single-endless-chain elevator and distributing-conveyer	453,130	May 26	2729	687 688	55	1119
Rittase, Ephraim N., Mauchester, Md. Jockey-stick	453,210	June 2	46	13	55	1157
Rittenhouse, Charles A., Big Run, Pa. Butter-firkin	460,033	Sept. 22	2338	586	56	1539
Rittenhouse, Frank, Norristown, Pa. Spacing device for cutting and punching machines	460,801	Oct. 6	418	103	57	83
Rittenhouse, Nicholas M. (See Dunnett, William W., assignor.)						
Ritter, Andrew J., assignor of one-half to D. A. Macneil and F. L. Moore, Tombstone, Ariz. Thill-coupling	450,919	Apr. 21	1970	483	55	398
Ritter, Otto, assignor of one-half to Meyer & Hofman, St. Louis, Mo. Wort and yeast aerator for beer-vats	466,310	Dec. 29	3695	943	57	1878

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Ritty, John, Dayton, Ohio. Machine for hulling corn.....	464,764	Dec. 8	1175	292	57	1367
Ritty, Sebastian. (See Anchey, David G., assignor.)						
Rives, Charles G. (See Rives, George P. G. and C. G.)						
Rives, George P. G., Rochester, N. Y., and C. G. Rives, Jersey City, N. J., assignors of one-fourth to G. C. Vogt, Rochester, N. Y. Apparatus for automatically shutting off water.....	458,496	Aug. 25	2567	625	56	1040
Rivett, Edward, Boston, Mass. Screw-driver.....	453,211	June 2	47	13	55	1157
Rivett, Edward, Boston, Mass. Filing-rest for lathes.....	462,329	Nov. 3	175	45	57	584
Rivett, Edward, Boston, Mass. Friction-clutch.....	462,738	Nov. 10	815	213	57	718
Rix, Edward A., San Francisco, Cal. Rock-drill.....	454,228	June 16	1566	412	55	1463
Rizzoni, Paul, St. Petersburg, Russia. Axle-arm for railway-cars.....	465,204	Dec. 15	1905	483	57	1516
Roach, Daniel, Fulton, N. Y. Hose-nozzle.....	444,712	Jan. 13	1136	293	54	233
Roach, John B. (See Barrow, Thomas, assignor.)						
Roach, Robert C. (See Fonda, Roach, and Underwood.)						
Roadhouse, William, assignor to S. A. Ward, Sheffield, England. Metallic packing for piston-rods.....	449,949	Apr. 7	452	114	55	88
Roake, John S., Brooklyn, N. Y. Filter.....	446,153	Feb. 10	1057	260	54	723
Robare, Louis F., Au Sable Forks, N. Y. Pocket-protector.....	451,197	Apr. 28	2429	600	55	495
Robare, Louis F., Au Sable Forks, N. Y. Telegraph-key.....	464,897	Dec. 8	1364	343	57	1404
Robb, Andrew F. (See Schofield and Robb.)						
Robberson, Alexander J. (See Rutherford and Robberson.)						
Robbiati, Domenico. (See Ponzio and Robbiati.)						
Robbins, Harry G., Minneapolis, Minn. Telegraph-transmitter.....	449,174	Mar. 31	3070	776	54	1738
Robbins, Henry R., Baltimore, Md. Bedstead-fastening.....	460,034	Sept. 22	2339	566	56	1539
Robbins, Ira, Sheffield, Ala. Electric railway.....	460,887	Oct. 6	547	138	57	107
Robbins, Lorenzo M., Elizabeth, Ark. Motive power.....	467,047	Oct. 13	779	199	57	157
Robbins, Lorenzo M., Elizabeth, Ark. Spool-cabinet.....	464,230	Dec. 1	352	85	57	1200
Robbins, Michael C., Freeman, Mo. Wind-wheel.....	449,589	Mar. 31	3768	946	54	1866
Robbins, Milo J., Fort Payne, Ala. Grate-damper.....	451,774	May 5	508	125	55	674
Roberge, David, Jr., New York, N. Y. Hoof-expander and frog-developer for horses.....	446,471	Feb. 17	1596	392	54	842
Robert, Henry M. (See D'Auria, Luigi, assignor.)						
Robert, Jesse P., Pittsburg, Pa. Vaporizer.....	446,953	Feb. 24	2361	587	54	998
Roberts, Albert E., Norwalk, Ohio. Railway cross-tie.....	456,343	July 21	1645	435	56	331
Roberts, Albert E., Norwalk, Ohio. Railway cross-tie.....	456,344	July 21	1647	436	56	332
Roberts, Anna M. (See Roberts, Charles D., assignor.)						
Roberts, Benjamin F., assignor to National Shelving Company, Fremont, Nebr. Adjustable shelving.....	446,472	Feb. 17	1597	392	54	842
Roberts-Brevoort Electric Company. (See Roberts, Isaiah L., assignor.)						
Roberts, Charles D., Fairfield, assignor to A. M. Roberts, Wayne County, Ill. Sulky harrow and pulverizer.....	446,408	Feb. 10	1495	368	54	808
Roberts, Charles H., Philadelphia, Pa. Carriage-apron holder.....	458,003	Aug. 18	1777	464	56	884
Roberts, Clarence V., Philadelphia, Pa. Stove or range.....	449,918	Apr. 7	412	103	55	80
Roberts, Cyrus, Three Rivers, Mich. Hand-car.....	446,713	Feb. 17	1962	489	54	913
Roberts, Cyrus, Three Rivers, Mich. Hand-car.....	446,714	Feb. 17	1963	489	54	913
Roberts, Cyrus, Three Rivers, Mich. Hand-car brake.....	446,715	Feb. 17	1964	490	54	913
Roberts, Cyrus, Three Rivers, Mich. Hand-car.....	446,716	Feb. 17	1965	490	54	913
Roberts, Cyrus, Three Rivers, Mich. Hand-car.....	455,577	July 7	454	119	56	88
Roberts, Cyrus, Three Rivers, Mich. Hand-car.....	455,578	July 7	457	120	56	89
Roberts, Cyrus, Three Rivers, Mich. Hand-car.....	455,579	July 7	459	120	56	89
Roberts, Cyrus, Three Rivers, Mich. Corn-sheller.....	458,024	Aug. 18	1800	469	56	888
Roberts, Cyrus, Three Rivers, Mich. Hand-car.....	462,508	Nov. 3	449	110	57	636
Roberts, Cyrus, Three Rivers, Mich. Hand-car.....	462,509	Nov. 3	450	110	57	636
Roberts, Dugald H., assignor of one-half to W. D. McKae, Wallaceburg, Canada. Gage-cock.....	465,729	Dec. 22	2742	699	57	1686
Roberts, Dugald H., assignor of one-half to W. D. McKae, Wallaceburg, Canada. Gage-cock.....	465,766	Dec. 22	2806	719	57	1699
Roberts, Edward, Brownsburg, Ind. Fence.....	459,019	Sept. 8	741	180	56	1217
Roberts, Edward M. (See Chable and Roberts.)						
Roberts, Edward P., Cleveland, Ohio. Toy.....	449,748	Apr. 7	161	40	55	33
Roberts, Edward P., Cleveland, Ohio. Apparatus for directing the proper administration of medicine.....	463,409	Nov. 17	1904	497 498	57	936
Roberts, Edward P., assignor to Swan Lamp Manufacturing Company, Cleveland, Ohio. Incandescent electric lamp.....	459,100	Sept. 8	878	211	56	1244
Roberts, Elbert H., Mexico, Mo. Churn.....	465,030	Dec. 15	1616	411	57	1463
Roberts, Ellwood W., Brooklyn, N. Y. Coin-receptacle.....	465,649	Dec. 22	2634	672	57	1665
Roberts, Eugene E. (See Estes, Hubert R., assignor.)						
Roberts, Evelyn P., Sing Sing, N. Y. Device for disposing of surplus water impounded in reservoirs.....	447,083	Feb. 24	2582	641	54	1040
Roberts, Frank, and G. Pullen, Oswego, N. Y. Extension-bolster.....	454,620	June 23	2195	566	55	1587
Roberts, Frank C., Philadelphia, Pa. Regenerative hot-blast stove.....	462,739	Nov. 10	816	213	57	718
Roberts, George, Montreal, assignor of one-half to J. Hally, Toronto, Canada. Gas or hydrocarbon-vapor burner.....	446,016	Feb. 10	823	199	54	681
Roberts, George H., et al. (See Marley, Patrick, assignor.)						
Roberts, Henry, Pittsburg, Pa. Apparatus for coiling metal rods.....	444,652	Jan. 13	1044	271	54	215
Roberts, Henry, Pittsburg, Pa. Rod-coiling apparatus.....	444,653	Jan. 13	1045	272	54	215
Roberts, Henry, Hartford, Conn. Woven-wire bed.....	451,522	May 5	115	29	55	601
Roberts, Henry W., Chelboygan, Mich. Holdback for vehicle-poles.....	444,305	Jan. 6	508	132	54	101
Roberts, Henry W., Duncan, Mich. Safety attachment for vehicle-poles.....	446,269	Feb. 10	1273	312	54	763
Roberts Iron Works. (See Tellow, James, assignor.)						
Roberts, Isaiah L., Brooklyn, N. Y. Electrode for arc lamps.....	460,596	Oct. 6	80	22	57	18
Roberts, Isaiah L., Brooklyn, N. Y. Electrode for arc lamps.....	460,597	Oct. 6	81	22	57	18
Roberts, Isaiah L., Brooklyn, assignor to Roberts-Brevoort Electric Company, Limited, New York, N. Y. Arc-lamp pencil.....	460,595	Oct. 6	79	21	57	18
Roberts, Isaiah L., Brooklyn, assignor to Roberts-Brevoort Electric Company, Limited, New York, N. Y. Secondary battery.....	464,665	Dec. 8	1015	254	57	1339
Roberts, John B., Carlton, N. Y. Fence.....	447,355	Mar. 3	126	35	54	1141
Roberts, John N., Indianapolis, Ind. Desk-curtain.....	447,415	Mar. 3	235	60	54	1161
Roberts, John T., Fort Scott, Kans. Reel for raising and lowering electric lamps.....	445,903	Feb. 3	635	156	51	637
Roberts, Joseph S., Indianapolis, Ind. Furnace.....	446,539	Feb. 17	1702	417 418	54	862
Roberts, Lafayette, Longmont, Colo. Head-gate lock.....	453,706	June 9	842	217	55	1314
Roberts, Lewis A., Carbondale, assignor of two-thirds to T. H. and W. J. Watts, Scranton, Pa. Igniting device for lanterns or lamps.....	461,048	Oct. 13	780	199	57	157
Roberts, Milton, Rawsonville, Mich. Handle attachment for culinary or other vessels.....	449,807	Apr. 7	252	63	55	50
Roberts, Nate H., assignor to E. C. Atkins & Company, Indianapolis, Ind. Belt-coupler.....	457,012	Aug. 4	124	30	56	557

Alphabetical list of patentees—Continued.

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Roberts, O. N., <i>et al.</i> (See Morgeneier and Bergeron, assignors.)						
Roberts, Richard B., W. D. Allison, and C. N. Leonard, Indianapolis, Ind.; said Leonard assignor to said Roberts and Allison. Surgeon's operating-chair	452,389	May 19	1530	{ 379 } 380	55	880
Roberts, Richard N., Rockville, Conn. Dental-cotton-pellet machine	451,701	May 5	394	96	55	654
Roberts, Seymour E., Oneida, and J. E. Lathe, Vernon, N. Y. Water-alarm for steam-boilers	444,713	Jan. 13	1137	293	54	233
Roberts, Thomas, Baltimore, Md. Motor for street-cars	445,756	Feb. 3	396	100	54	591
Roberts, Walter, Hartford, Conn. Thread-guide for knitting-machines	464,995	Dec. 15	1556	396	57	1452
Roberts, William, assignor to himself and H. R. Belden, Petersham, near Sydney, New South Wales. Grinding and amalgamating pan	448,731	Mar. 24	2396	599	54	1600
Roberts, William A., and J. L. McGee, Ash Flat, Ark. Gate	453,506	June 2	518	133	55	1245
Roberts, William C., Sausalito, Cal. Newspaper-holder	461,049	Oct. 13	782	200	57	158
Roberts, William E., Bristol, county of Gloucester, England. Velocipede	461,588	Oct. 20	1703	{ 416 } 417	57	341
Roberts, William E., assignor of one-half to J. G. Buckley, New York, N. Y. Advertising device	454,769	June 23	2413	620	55	1631
Roberts, William H. (See Washington and Roberts.)						
Robertshaw, Joseph. (See Firth and Robertshaw.)						
Robertson, Archibald J., New York, N. Y. Conduit electric railway	462,672	Nov. 3	706	182	57	686
Robertson, David, <i>et al.</i> (See McEwen and Cartwright, assignors.)						
Robertson, Edward G., Newark, N. J. Harness-saddle	465,115	Dec. 15	1768	447	57	1490
Robertson, Edwin. (See Catlett and Robertson.)						
Robertson, George. (See Sissons and Mayo, assignors.)						
Robertson, George F., Morristown, Tenn. Type-writing machine	448,079	Mar. 10	1314	{ 337 } 338 141	54	1376
Robertson, George W., London, England. Station-indicator	462,588	Nov. 3	580	{ 142 } 143	57	662
Robertson, James, Birmingham, England. Machine for making tubing	447,582	Mar. 3	508	125	54	1213
Robertson, James, Birmingham, England. Apparatus for making tube-blanks	447,583	Mar. 3	511	{ 125 } 126	54	1213
Robertson, James H., Rutherford, assignor of two-thirds to C. G. Taylor, Montclair, N. J., J. B. Campbell, Brooklyn, and R. H. Thompson, New York, N. Y. Fibrous-carbon battery	459,447	Sept. 15	1425	358	56	1358
Robertson, John E. (See Woodsum, Daniel R. and F. M., assignors.)						
Robertson, Monroe. (See Johnson, William, assignor.)						
Robertson, Oliver H., Forestville, Conn. Wagon-jack	455,357	July 7	90	26	56	21
Robertson, Thaddeus M., Havana, N. Y. Machine for exhibiting wall-paper	460,727	Oct. 6	313	77	57	62
Robertson, Thomas W., <i>et al.</i> (See Woolcott and Wilmot, assignors.)						
Robeson, Milton B., Lavinia, Tenn. Automatic gate	453,662	June 9	761	197	55	1300
Robidoux, Amable, Roxton, Canada. Remedy for corns, &c.	444,601	Jan. 13	973		54	201
Robie, Henry W., assignor to J. Haines and S. P. Johns, Philadelphia, Pa. Screw-jack	461,643	Oct. 20	1793	441	57	357
Robie, Rodney L. (See Henry, George W., assignor.)						
Robinson, Alfred E. (See Parker and Robinson.)						
Robinson, Almon, Lewiston, Me. Method of and apparatus for electric soldering	449,258	Mar. 31	3208	809	54	1763
Robinson, Andrew J., Glasston, N. D. Thill-coupling	449,333	Dec. 15	1814	460	57	1499
Robinson, Arthur W., Bucyrus, Ohio. Friction-clutch	465,536	Dec. 22	2459	627	57	1631
Robinson, Charles A., assignor to G. Cutler, La Grange, Ill. Rail-connection with supplemental wire	450,193	Apr. 14	799	202	55	162
Robinson, Charles H., Huntsville, Tex. Piston for pneumatic pumps	449,333	Mar. 31	3348	844	54	1787
Robinson, Charles H., Huntsville, Tex. Vertical steam-pump	454,498	June 23	1984	515	55	1551
Robinson, Charles H., St. Paul, Minn., assignor to A. S. Browne, Washington, D. C. Heating apparatus for railway-cars	462,740	Nov. 10	818	{ 213 } 214	57	718
Robinson, Charles L., New York, N. Y. Tail-piece for musical instruments	459,414	Sept. 15	1375	344	56	1350
Robinson, Charles W., assignor to Kartavert Manufacturing Company, Wilmington, Del. Machine for making parchmentized fiber	459,258	Sept. 8	1113	272	56	1289
Robinson, Clark. (See Young and Robinson.)						
Robinson, Cyrus R., East Concord, N. H. Shut-off nozzle	463,779	Nov. 24	2483	648	57	1055
Robinson, Darius S., assignor of one-half to F. E. Drury, Cleveland, Ohio. Wrench	464,084	Dec. 1	118	30	57	1160
Robinson, Dighton A. (See Simpson, John, assignor.)						
Robinson, Dighton A., assignor of one-half to J. Simpson, Minneapolis, Minn. Power-transmission for grain-elevators	460,661	Oct. 6	201	52	57	42
Robinson, Edgar, Cincinnati, Ohio. Coat	454,770	June 23	2415	620	55	1631
Robinson, Edward I. (See King, John H., assignor.)						
Robinson, Edward P., Somerville, Mass. Hand-hole plate for boilers	455,358	July 7	91	27	56	22
Robinson, Edwin L., North Attleborough, assignor to H. G. Bacon, Wrentham, Mass. Swivel-hook	452,320	May 12	1417	351	55	849
Robinson, Edwin R., <i>et al.</i> (See Miller, James B., assignor.)						
Robinson, Elijah, <i>et al.</i> (See Pugh, Cortez V., assignor.)						
Robinson, Eugene, Detroit, Mich. Railway-tie	447,356	Mar. 3	127	35	54	1141
Robinson, Fayette S., Boston, Mass. Heating soldering-irons	446,154	Feb. 10	1059	260	54	724
Robinson, Frank, Bangor, Me. Railway time-signal	444,506	Jan. 13	833	{ 216 } 217	54	174
Robinson, Frank, Bangor, Me., assignor of one-half to A. O. Norton, Boston, Mass. Lifting-jack	458,255	Aug. 25	2161	530	56	965
Robinson, Frank, and P. W. J. Lander, Bangor, Me. Trolley-support for electric cars	449,886	Apr. 7	360	91	55	71
Robinson, Frank L., Caribou, Me. Canal-rack	454,185	June 16	1508	396	55	1451
Robinson, Frank T., Chicago, Ill. Smoke-consumer	451,977	May 12	823	210	55	742
Robinson, Frederick J., Detroit, Mich. Steam-generator	458,918	Sept. 1	577	140	56	1176
Robinson, Gad, Boston, Mass. Banjo	448,674	Mar. 24	2300	577	54	1581
Robinson, George W., Portalegre, Portugal. Cork-cutting machine	457,671	Aug. 11	1211	311	56	767
Robinson, Heber, Waukon, Iowa. Windmill-tower	446,744	Feb. 17	2011	501	54	923
Robinson, Henry, Waco, Tex. Atomizer	456,205	July 21	1423	377	56	289
Robinson, Henry S., Andover, Mass. Apparatus for forcing air	455,359	July 7	92	27	56	22
Robinson, Horace, Manchester, England. Hot-air engine	445,904	Feb. 3	635	156	54	637
Robinson, J. B., <i>et al.</i> (See Ish, James T., assignor.)						
Robinson, James, Penryn, assignor of two-thirds to S. K. M. Stobart and H. B. Fox, Falmouth, England. Stop-valve	454,007	June 9	1249	325	55	1395
Robinson, James D. (See Carr, Warren H., assignor.)						
Robinson, James R., Washington, Pa. Power-wrench	452,237	May 12	1276	322	55	824
Robinson, James T., <i>et al.</i> (See Dobeck, Frank H., assignor.)						
Robinson, James T., Altoona, Pa. Car-truck	451,952	May 12	785	199	55	735
Robinson, James T., Altoona, Pa. Car-brake	458,497	Aug. 25	2569	625	56	1040
Robinson, James T., Altoona, Pa. Car-truck	464,041	Dec. 1	50	14	57	1146
Robinson, James T., Altoona, Pa. Car-brake	465,369	Dec. 15	2212	567	57	1574

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Robinson, John B., <i>et al.</i> (See Robinson, Walstein E., assignor.)						
Robinson, John E., Philadelphia, Pa. Making tight joints in sheet piling	454,382	June 16 1802	470	55	1507	
Robinson, John E., Philadelphia, Pa. Cofferdam	454,383	June 16 1803	470	55	1507	
Robinson, John F., Rockaway, N. J. Machine for rolling horseshoe-blanks	458,498	Aug. 25 2570	626	56	1040	
Robinson, John J., Brooklyn, N. Y. Burner	448,080	Mar. 10 1319	338	54	1377	
Robinson, John M., Knox Point, La. Fertilizer-distributor attachment	466,260	Dec. 29 3616	925	57	1864	
Robinson, John R., Salem, assignor to L. S. Haggood, Boston, Mass. Type-writing machine	447,357	Mar. 3 128	35	54	1142	
Robinson, John R., Salem, assignor of one-half to T. F. Lawrence, Peabody, Mass. Electric motor	464,231	Dec. 1 353	85	57	1200	
Robinson, John T., Hyde Park, Mass., assignor to Pope Manufacturing Company, Portland, Me. Velocipede	462,018	Oct. 27 2392	592	57	480	
Robinson, Josiah M., Kenesaw, Nebr. Wire-reel	465,537	Dec. 22 2461	627	57	1631	
Robinson, M. E., <i>et al.</i> (See Miller, David W., assignor.)						
Robinson, Marcus W. (See Bradley, James E., assignor.)						
Robinson, Martin W., Medford, Mass., assignor to Vulcan Electric Company, Kittery, Me. Galvanic battery	447,016	Feb. 24 2466	613	54	1018	
Robinson, Maxwell, <i>et al.</i> (See Grant, Daniel, assignor.)						
Robinson, Moses H., San Diego, Cal. Apparatus for discharging water	464,716	Dec. 8 1105	274	57	1355	
Robinson, Nannie E., Grand Rapids, Mich. Folding wardrobe	461,222	Oct. 13 1058	268	57	210	
Robinson Radial Car Truck Company. (See Robinson, William, assignor.)						
Robinson-Rea Manufacturing Company. (See Babbitt and Bailey, assignors.)						
Robinson, Stillman W., Columbus, Ohio, assignor to Wire Grip Fastening Company, Chicago, Ill. Nailing-machine for boots or shoes	447,359	Mar. 3 135	37	54	1143	
Robinson, Stillman W., and S. P. Watt, Columbus, Ohio, assignors to Wire Grip Fastening Company, Chicago, Ill. Nailing-machine	447,358	Mar. 3 130	36, 37	54	1142	
Robinson, Thomas C., and R. Stephenson, Boston, assignors of one-half to J. H. Tomlinson, Lawrence, and E. B. Welch, Boston, Mass. Feeding mechanism for sewing-machines	457,521	Aug. 11 983	251	56	723	
Robinson, Walstein E., assignor to J. B. and W. E. Robinson, C. S. and J. R. Watkins, Bellport, N. Y. Shutter-fastener	459,767	Sept. 22 1942	490	56	1463	
Robinson, Walter A., Syracuse, N. Y. Wall-plaster	465,205	Dec. 15 1905		57	1516	
Robinson, William, Boston, Mass., assignor to Robinson Radial Car Truck Company, Portland, Me. Radial car-truck	444,181	Jan. 6 333	80, 81	54	67	
Robinson, William, Boston, Mass., assignor to Robinson Radial Car Truck Company, Portland, Me. Car-spring check	444,182	Jan. 6 335	81, 82	54	68	
Robinson, William, Boston, Mass., assignor to Robinson Radial Car Truck Company, Portland, Me. Swing-bolster check for car-trucks	444,183	Jan. 6 337	82	54	68	
Robinson, William, Boston, Mass., assignor to Robinson Radial Car Truck Company, Portland, Me. Cable car for street-railways	444,184	Jan. 6 339	82, 83	54	69	
Robinson, William H., Oceanside, Cal. Ink-eraser	450,378	Apr. 14 1121	274	55	220	
Robischung, Henry B., Kalamazoo, Mich., assignor to National Hollow Brake Beam Company, Chicago, Ill. Slotting-machine	452,482	May 19 1694	426	55	909	
Robischung, Henry B., Kalamazoo, Mich., assignor to National Hollow Brake Beam Company, Chicago, Ill. Brake-beam	453,739	June 9 881	228, 229	55	1323	
Robischung, Henry B., Kalamazoo, Mich., assignor to National Hollow Brake Beam Company, Chicago, Ill. Slotting-machine	464,307	Dec. 1 481	115	57	1226	
Robison, Alasco C. (See West, Elbridge G., assignor.)						
Robison, Charles W., assignor of one-half to R. B. Robison, Allegheny, Pa. Deep-well tool	448,165	Mar. 10 1443	369	54	1402	
Robison, Charles W. and S. D., assignors of two-thirds to R. B. Robison, J. G. Lucock, Allegheny, J. A. Gartlan, Pittsburg, and T. D. Williams, Bellevue, Pa. Electric oil-well heater	457,457	Aug. 11 882	228	56	704	
Robison, Edward I., <i>et al.</i> (See Mains, John F., assignor.)						
Robison, Edward J., <i>et al.</i> (See Mains, John F., assignor.)						
Robison, Robert B. (See Robison, Charles W., assignor.)						
Robison, Robert B., <i>et al.</i> (See Robison, Charles W. and S. D., assignors.)						
Robison, Samuel D. (See Robison, Charles W. and S. D.)						
Robison, Tolbert J., Curwensville, Pa. Wheel-lubricator	452,681	May 19 1996	499	55	968	
Rochat, Louis S., Brassus, England. Circular cutter	457,370	Aug. 11 751	193	56	679	
Roche, David, Cleveland, Ohio. Cloth-cutting machine	457,431	Aug. 11 842	218	56	697	
Roche, Francis J., assignor of two-thirds to R. Sonia and W. J. Bourque, Somerville, Mass. Bit	444,161	Jan. 6 298	72	54	61	
Roche, James, assignor to Eagle Lock Company, Terryville, Conn. Piano-lock	465,293	Dec. 15 2048	523	57	1543	
Roche, William E., Peabody, Mass. Potato-digger	454,919	June 30 2692	689	55	1689	
Rochester Cycle Manufacturing Company. (See Kenfield, William W., assignor.)						
Rochester Hosiery Company. (See Dow, Frank L., assignor.)						
Rochester Shoe Machinery Company. (See Harrison, James M., assignor.)						
Rochow, Ferdinand, assignor to R. Sentner, Brooklyn, N. Y. Station-indicator	455,360	July 7 94	27	56	22	
Rocker Spring Company. (See Stevens, Asher B., assignor.)						
Rockey, Henry F., Indianapolis, Ind. Printing device	446,929	Feb. 24 2331	578	54	993	
Rockford Machine Company. (See Forsberg, Charles A., assignor.)						
Rockford Manufacturing Company. (See Heylman, Edward M., assignor.)						
Rockford Mitten and Hosiery Company. (See Boehmen, Adolph, assignor.)						
Rockhausen, Ernst, Waldheim, Germany. Method of and apparatus for covering moldings or similar articles	466,105	Dec. 29 3372	861	57	1817	
Rockhill, Hiram B., Philadelphia, Pa. Holder for basins, &c	451,715	May 5 412	100	55	657	
Rockingham Machine Company. (See Fowler and Warren, assignors.)						
Rockingham Machine Company. (See Warren, George E., assignor.)						
Rockman, Sorene C., Philadelphia, Pa. Method of and apparatus for compressing steel castings	464,441	Dec. 1 667	163	57	1262	
Rockwell, Charles H., Cleveland, Ohio. Manufacturing mineral wool	447,360	Mar. 3 137		54	1143	
Rockwell, Charles H., Cleveland, Ohio, assignor to Western Mineral Wool and Insulating Fibre Company, of New York. Manufacturing mineral wool	452,733	May 19 2082		55	985	
Rockwell, David H., Binghamton, N. Y. Corner shield or protector	462,164	Oct. 27 2612	651	57	523	
Rockwell, Edward D., assignor to New Departure Bell Company, Bristol, Conn. Bell	456,062	July 14 1209	318	56	238	
Rockwell, Frank W., <i>et al.</i> (See Cheevers, Aurion V., assignor.)						
Rockwell, John. (See Weed and Rockwell.)						
Rockwell, Warren C., assignor to D. Camp and G. McFee, Mount Carmel, Pa. Weather-strip	448,997	Mar. 24 2800	708	54	1677	
Rockwood, Howard S., assignor to Holmes Manufacturing Company, Providence, R. I. Button-fastener	449,648	Mar. 31 3881	971	54	1887	
Rodden, Richard J. (See Atkinson, William, assignor.)						
Roden, Horace R., Liberty Hill, La. Wagon-step	455,639	July 7 553	144	56	107	
Roden, Horace R., Liberty Hill, La. Harrow	458,114	Aug. 18 1928	501	56	915	
Rodermond, Jacob, New York, N. Y. Concentrator and amalgamator	456,852	July 28 2506	657	56	500	
Rodgers, George W., Lisbon, La. Evaporator or sirup-pan	445,266	Jan. 27 2072	534	54	428	

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Rodgers, James C., Appleton City, Mo. Automatic flood-gate	451,953	May 12	787	199	55	735
Rodgers, Joseph F., and L. J. Gregor, Pittsburg, Pa. Sandpapering-head	449,950	Apr. 7	453	114	55	89
Rodgers, William H., Brooklyn, N. Y. Automatic exhibitor	445,456	Jan. 27	2338	608	54	482
Rodier, Peter, Springfield, Mass. Hinged button	451,954	May 12	788	200	55	735
Rodiger, William, Chicago, Ill. Ink stand or bottle	463,214	Nov. 17	1580	411	57	874
Rodiger, William, Chicago, Ill. Fountain-pen filler	463,215	Nov. 17	1582	412	57	874
Rodman, Thomas J. (See Meyer, John W., assignor.)						
Rodriguez, José I., administrator. (See Prieto, Demetrio.)						
Rodwell, George J. B., assignor of two-thirds to S. J. Moore and H. C. Secord, Toronto, Canada. Sign-letter	444,507	Jan. 13	836	217	54	174
Rodwell, George J. B., assignor to Rodwell Manufacturing Company, Toronto, Canada. Inker for rubber-stamp pads	446,889	Feb. 24	2261	562	54	981
Rodwell Manufacturing Company. (See Rodwell, George J. B., assignor.)						
Roe, George H., et al. (See Ludwig, John C., assignor.)						
Roebeling, Ferdinand W. (See Arnold, Horace L., assignor.)						
Roebeling, Ferdinand W. (See Smith and Arnold, assignors.)						
Roedel, Henry H. (See Lithgow, Herbert S., assignor.)						
Roehr, Ludwig J., Newark, N. J. Jewelry	444,673	Jan. 13	1085	281	54	222
Roekel, Augustus, Jr., assignor of one-half to H. W. Doty, Findlay, Ohio. Valve	465,203	Dec. 22	2856	731	57	1709
Roemer, Henry C., and C. M. Kimball, assignors of one-third to S. T. Fisk, Toledo, Ohio. Means for producing optical illusions	462,510	Nov. 3	451	111	57	636
Roemer, William, Newark, N. J. Bag or satchel lock case	457,216	Aug. 4	446	117	56	616
Roomer, William, Newark, N. J. Bag-frame brace or stay	462,851	Nov. 10	1008	260	57	755
Roepper, Charles W. (See Vogt, Axel S., assignor.)						
Roepper, Charles W., Alliance, Ohio. Brake-shoe	444,508	Jan. 13	837	217	54	175
Roessler, George A., Tegay, Java. Controlling apparatus for feed-pumps	464,733	Dec. 8	1128	279	57	1350
Roessler, Hugo, Erbach-on-the-Rhine, Germany. Dredger	445,862	Feb. 3	579	141	54	625
Rofe, Samuel J., Birkdale, Southport, England. Tool for operating on gas or water fittings	449,263	Apr. 7	331	85	55	66
Rogers, Charles C., assignor of two-thirds to C. E. McElroy and C. C. Merritt, Brockton, Mass. Fire-escape	457,608	Aug. 11	1119	285	56	750
Rogers, Charles C., assignor of two-thirds to C. E. McElroy and C. C. Merritt, Brockton, Mass. Track for store-service apparatus	457,609	Aug. 11	1121	286	56	751
Rogers, Charles C., assignor of two-thirds to C. E. McElroy and C. C. Merritt, Brockton, Mass. Cash-carrier	457,610	Aug. 11	1122	286	56	751
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Wood-screw	449,887	Apr. 7	362	92	55	72
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Die for slot-ting screw-heads	452,064	May 12	992	251	55	771
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Die for roll-ting screw-heads	461,620	Oct. 20	1755	432	57	350
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Headed bolt or screw	461,621	Oct. 20	1758	433	57	350
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Screw-eye	464,465	Dec. 1	700	171	57	1268
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Die for cut-ting off and pointing pieces of wire	464,466	Dec. 1	701	172	57	1268
Rogers, Charlotte, et al. (See Grant, Daniel, assignor.)						
Rogers, Columbus K., assignor to C. F. Curwen, Salem, Mass. Device for operating hatch-way-doors	456,063	July 14	1210	318	56	238
Rogers, Edward, Stewartville, Ky. Sausage-machine	452,238	May 12	1278	322	55	825
Rogers, Elias P., Springfield, Mo. Post-driver	456,163	July 21	1359	361	56	277
Rogers, Elisha F., Salem, Mass. Game apparatus	463,454	Nov. 17	1958	511	57	947
Rogers, Ernest L., Worcester, Mass. Sheet-metal knob	463,780	Nov. 24	2484	648	57	1055
Rogers, Frank E., et al. (See Polley, William, assignor.)						
Rogers, George E., et al. (See Kilbourn, Washington H., assignor.)						
Rogers, George H. (See Blackshaw and Rogers.)						
Rogers, George H., and A. J. Barber, Sodus, N. Y. Stove-truck	444,020	Jan. 6	55	15	54	14
Rogers, George O., St. Louis, Mo. Thimble	458,499	Aug. 25	2572	626	56	1041
Rogers, George R., Parkersburg, Ind., assignor of one-half to G. S. Harney. Car-coupling	447,259	Feb. 24	2898	720	54	1101
Rogers, George R., assignor of two-thirds to T. W. Hester, D. C. Miller, E. W. Foster, J. W. Owens, W. B. Shannon, Parkersburg, and W. H. Hicks, Pawnee, Ind. Operating device for brakes	464,724	Dec. 8	1116	277	57	1356
Rogers, George W., Kendallville, Ind. Crauk-pin	454,229	June 16	1568	413	55	1464
Rogers, George W., Kendallville, Ind. Piston-rod packing	454,384	June 16	1804	471	55	1507
Rogers, Grandison T., Jefferson City, Mo. Lock	447,623	Mar. 3	574	142	54	1226
Rogers, Henry J., Watford, England. Machine for straining paper-pulp	464,725	Dec. 8	1118	277	57	1357
Rogers, Homer, trustee. (See Phillips, Charles E., assignor.)						
Rogers, Howard W., et al. (See Gaillac, Eugene G., assignor.)						
Rogers, James S., Rockport, Mass., and J. H. Baker, Saratoga Springs, assignors to Acme Liquid Fuel Company, New York, N. Y. Apparatus for manufacturing heating and illuminating gas	465,077	Dec. 15	1688	430	57	1475
Rogers, James S., and J. H. Baker, Saratoga Springs, N. Y., assignors to Acme Liquid Fuel Company, New York, N. Y. Apparatus for manufacturing gas	465,085	Dec. 15	1707	434	57	1479
Rogers, John, assignor to J. Hunter & Son, North Adams, Mass. Work-centering apparatus	450,978	Apr. 21	2075	512	55	418
Rogers, John F., Belfast, Me. Vamp-marking machine	454,987	June 30	2825	719	55	1714
Rogers, John R., Cleveland, Ohio, assignor, by mesne assignments, to Rogers Typograph Company, of New Jersey. Machine for making stereotype-matrices. (Reissue.)	11,198	Oct. 13	1365	344	57	272
Rogers, Josiah W., trustee. (See Murray, Daniel, assignor.)						
Rogers, Lebbeus H., assignor to Rogers Manifold and Carbon Paper Company, New York, N. Y. Ribbon for type-writing machines	455,263	June 30	3291	833	55	1804
Rogers, Lewis H., Brookline, Mass. Packet or pad for electric batteries	465,206	Dec. 15	1906	483	57	1516
Rogers Liquid Meter Company. (See Rogers, Richard J., assignor.)						
Rogers, Louis P., and J. Hofman, Rochester, N. Y. Transporting-receptacle	450,320	Apr. 14	1017	251	55	202
Rogers, Louis P., and J. Hofman, Rochester, N. Y. Transporting-receptacle	450,321	Apr. 14	1019	252	55	202
Rogers Manifold and Carbon Paper Company. (See Rogers, Lebbeus H., assignor.)						
Rogers, Peet & Co. (See Terry, Timothy D., assignor.)						
Rogers, Richard J., Chelsea, Mass., assignor to Rogers Liquid Meter Company, Portland, Me. Water-meter	458,739	Sept. 1	229	71	56	1121
Rogers, Robert L., St. Louis, Mo. Check-punch	454,156	June 16	1466	385	55	1444
Rogers, Samuel R., et al. (See Harrison, Leonard S., assignor.)						
Rogers, Seth, Ballston Spa, N. Y. Curry-comb	444,185	Jan. 6	340	83	54	69
Rogers, Seymour, assignor to Hartman Manufacturing Company, Beaver Falls, Pa. Woven-wire mat	463,321	Nov. 17	1752	459	57	907
Rogers Typograph Company. (See Rogers, John R., assignor.) (Reissue.)						
Rogers, Winfield S., assignor to M. C. Hammett, Troy, N. Y. Packing for balanced slide-valves	450,299	Apr. 14	977	242	55	194

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Rogers, William A., Cambridge, Mass. Apparatus for determining minute measurements	449,175	Mar. 31	3072	776	54	1738
Rogers, William H., Kingston, Canada. Nut-wrench	460,403	Sept. 29	2918	729	56	1656
Rogers, William J. and J. Howe, Laurel, Cal. Inserted tooth for saws	458,120	Aug. 18	1941	504	56	917
Rohan, Philip, St. Louis, Mo. Mechanical stoker	451,622	May 5	275	65 66 67	55	631
Rohland, Charles B., New Portage, Ohio. Boring or chasing tool	455,640	July 7	554	144	56	107
Rohland, Charles B., New Portage, Ohio. Reamer	460,802	Oct. 6	420	104	57	83
Rohlf, Henry J., Chicago, Ill. Safety-gate for draw-bridges	449,176	Mar. 31	3078	777	54	1739
Rohlfing, William, Jr., Milwaukee, Wis. Piano-forte action	457,590	Aug. 11	1093	279	56	746
Rohlmann, Joseph, St. Joseph, Mo. Carving-machine	444,306	Jan. 6	509	133	54	102
Rohonczy, Gedeon de, Buda-Pesth, Austria-Hungary. Skate	462,279	Nov. 3	90	23	57	568
Rohonczy, Gedeon von, Buda-Pesth, Austria-Hungary. Ankle-supporter for skaters	459,616	Sept. 15	1697	425	56	1409
Rohr, Henry, <i>et al.</i> (See Reiche, Ernest C., assignor.)						
Rohr, Richard, Millstadt, Ill. Device for stripping leaves from sugar-cane	449,137	Mar. 31	3021	764	54	1728
Rohrbach, Gabriel, Del Rio, Tex. Car-coupling	462,511	Nov. 3	453	111	57	637
Rohrbach, Gabriel, Del Rio, Tex. Gate-latch	466,186	Dec. 29	3500	894	57	1842
Rohrer, Henry, San Diego, Cal. Vehicle-wheel	460,183	Sept. 29	2581	643	56	1593
Rohrer, Henry, San Diego, Cal. Wagon-tire	460,184	Sept. 29	2582	644	56	1593
Rohrer, Henry, Hagerstown, Md. Tire	460,185	Sept. 29	2582	644	56	1593
Rohrer, Jacob L., Palmyra, Mo. Cider-mill	457,217	Aug. 4	448	117	56	616
Rohrkaste, Charles W., Beaver Falls, Pa. Fountain-inkstand	450,497	Apr. 14	1294	317	55	255
Rokusek, Albert. (See Konigslow, Sanford, and Harvey, assignors.)						
Rokusek, Albert. (See Hudec, John F., assignor.)						
Rokusek, Albert, P. Sanford, and E. B. Harvey, Cleveland, Ohio; said Harvey assignor to said Rokusek. Ticket holder or till	458,595	Sept. 1	72	16	56	1080
Rokusek, Albert, E. B. Harvey, and P. Sanford, Cleveland, Ohio; said Harvey assignor to said Rokusek. Railway-ticket	464,690	Dec. 8	1057	263	57	1346
Rolfe, Charles A., Chicago, Ill. Police-signal-telegraph system	462,741	Nov. 10	821	214	57	718
Rolfe, Frank S., assignor to Sullivan Machine Company, Claremont, N. H. Sand-band	447,361	Mar. 3	137	37	54	1144
Roll, John F., Galveston, Tex. Blind-stop	457,869	Aug. 18	1544	401	56	840
Rollason, Arthur, and J. H. Hamilton, Sandiacre, England. Gas or vapor engine	456,505	July 21	1913	506	56	381
Rollason, Arthur, and J. H. Hamilton, Sandiacre, England. Gas or vapor engine	456,853	July 28	2508	658	56	500
Rollason, Arthur, and J. H. Hamilton, Sandiacre, England. Gas or vapor engine	457,332	Aug. 4	655	171	56	654
Roller Bearing Axle Company. (See Hardy, Lewis W., assignor.)						
Rollert, Anton J., assignor to T. A. Kochs, Chicago, Ill. Barber's chair	464,588	Dec. 8	892	219	57	1315
Rollings, Elvaeth J., Mobile, Ala., assignor to A. B. Peterson, Chicago, Ill. Making metallic compositions	449,783	Apr. 7	218	-----	55	44
Rollins, John B., <i>et al.</i> (See Glazier, George W., assignor.)						
Rollins, John O., Forest Ranch, Cal. Building material	463,649	Nov. 24	2293	602	57	1019
Rollmann, Michael A., assignor of one-half to B. Padberg, Detroit, Mich. Railway-frog	461,511	Oct. 20	1588	388	57	319
Rolston, Samuel F., Edgerton, Mo. Opening and closing device for gates	460,598	Oct. 6	81	22	57	18
Romick, William H. (See Delleres and Romick.)						
Rondel, Victor E. (See Villaret and Rondel.)						
Roney, Alexander B., Chicago, Ill. Electric motor	454,627	June 23	2208	568 569	55	1589
Roney, Alfred, and G. H. Lloyd, Stillwater, Minn. Car-coupling	452,239	May 12	1279	322	55	825
Ronkowski, Joseph, Sr. (See Dose and Ronkowski.)						
Rontke, Albert, assignor to J. Bolton, Chicago, Ill. Shuttle-driving mechanism for sewing-machines	455,115	June 30	3058	777	55	1759
Rood, A. E. (See Fidler, Charles H., assignor.)						
Rooke, George, Emporia, Kans. Propulsion of vessels	464,829	Dec. 8	1267	317	57	1386
Rooke, George, Emporia, Kans. Screw propeller	464,898	Dec. 8	1365	343	57	1405
Rooker, Kelly M., <i>et al.</i> (See Gooch, Mike M., assignor.)						
Rooney, Henry F., Randolph, assignor to G. H. P. Flagg, Boston, Mass. Boot or shoe sole trimming machine	464,289	Dec. 1	452	108	57	1221
Rooney, Leo J. F., Brooklyn, N. Y. Base-ball mask	455,007	June 30	2870	729	55	1723
Roos, Israel, Frankfurt-on-the-Main, Germany. Purifying suint	451,642	May 5	306	-----	55	637
Roosevelt, Frank, New York, N. Y. Organ	449,177	Mar. 31	3080	777	54	1739
Roosevelt, Frank, New York, N. Y., and W. N. Elbert, Philadelphia, Pa.; said Elbert assignor to said Roosevelt. Organ	449,590	Mar. 31	3769	946	54	1866
Root, Charles J. (See Harvey and Root.)						
Root, Charles J., Bristol, Conn. Counting-register	450,039	Apr. 7	578	143	55	112
Root, Charles T. (See Burnham, Walter, assignor.)						
Root, Frank H. (See Bell and Root.)						
Root, G. Wells. (See Sperry, Alfred W., assignor.)						
Root, Irene. (See Haynes, Harry, assignor.)						
Root, Sanford O., Lodi, N. Y. Cutting-nippers	458,860	Sept. 1	489	119	56	1158
Root, Sebra H., Longmont, Colo. Thill-coupling	465,538	Dec. 22	2462	628	57	1632
Roovers, Alexander H. (See Roovers, Alfred W. and A. H.)						
Roovers, Alfred W., Brooklyn, N. Y. Vending-machine	449,749	Apr. 7	162	40	55	33
Roovers, Alfred W. and A. H., Brooklyn, N. Y. Electric cane	465,949	Dec. 29	3102	794	57	1765
Roper, Bailey A. (See McKay, Robert B., assignor.)						
Roper, Beverly, Atlanta, Ga. Car-coupling	455,258	June 30	3284	832	55	1802
Roraback, John Z. (See Edgar, Joseph M., assignor.)						
Roraback, John Z. (See Wooley, George W., assignor.)						
Roraback, John Z., Kansas City, Mo. Mechanical movement	449,334	Mar. 31	3349	844	54	1787
Rosa, Katharina. (See Koepf, Heinrich, assignor.)						
Rosback, Fredrick P., Chicago, Ill., assignor of one-half to H. F. Band, San Francisco, Cal. Sheet-metal fence-post	457,133	Aug. 4	302	80	56	591
Rosback, Fredrick P., Chicago, Ill., assignor of one-half to H. F. Band, San Francisco, Cal. Machine for making tubular sheet-metal posts	463,201	Nov. 17	1563	407 408	57	871
Roscoe, Allison M., Du Bois, Pa. Saw-handle	459,652	Sept. 15	1766	444	56	1422
Rose, George, Glasgow, Scotland. Liquid-fuel furnace	461,589	Oct. 20	1706	417	57	341
Rose, George, assignor of two-thirds to A. and M. B. Baird, Glasgow, Scotland. Spray-lamp for lighting, heating, and signaling purposes	452,390	May 19	1532	380	55	881
Rose, George, assignor of two-thirds to A. and M. B. Baird, Glasgow, Scotland. Spray-lamp	453,131	May 26	2731	688	55	1119
Rose, George, assignor of two-thirds to A. and M. B. Baird, Glasgow, Scotland. Self-generating steam-spray lamp for lighting and heating purposes	453,663	June 9	762	197	55	1300
Rose, Henry C., and T. J. Thompson, Leadville, Colo. Thill-coupling	449,235	Mar. 31	3165	798	54	1755
Rose, James M., Allegheny, Pa. Process of and apparatus for manufacturing gas	461,394	Oct. 13	1332	336 337	57	265
Rose, Joseph, Memphis, Tenn. Bed-spring	465,539	Dec. 22	2463	628	57	1632

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Rose, Joseph J. (See Norwood and Rose.)						
Rose, Joseph W. (See Balston and Rose.)						
Rose, Milton T., Orland, Ind. Coal or grain elevator	449,495	Mar. 31	3628	913	54	1841
Rose, Stephen J., Witney, England. Wheel-tire	459,335	Sept. 8	1238	304	56	1314
Rose, Thomas, Jersey City, N. J. Ice-making and refrigerating	446,076	Feb. 10	923	326	54	700
Rose, Walter J. (See Carlton, Caps, and Rose.)						
Rose, William P. (See Miller, Levi H., assignor.)						
Roseberry, Clement, Pottsville, Pa. Wick-trimmer	448,789	Mar. 24	2487	622	54	1617
Rosebrugh, Abner M., Toronto, Canada. Combined window ornament and ventilator	465,890	Dec. 29	3014	771	57	1748
Roseholt, Ole, Oconomowoc, Wis. Steam-engine governor	466,106	Dec. 29	3373	861	57	1818
Rosenbaum, Henry W., New York, N. Y. Movable table for railway-cars	445,704	Feb. 3	311	82	54	574
Rosenbaum, Martin, Tacoma, Wash. Combined extension show-table, toilet-stand, and bureau	450,873	Apr. 21	1911	469	55	386
Rosenbaum, Martin, Tacoma, Wash. Combined extension show-table and bedstead	462,165	Oct. 27	2614	{ 651 652 }	{ 57 57 }	{ 523 523 }
Rosenbaum, William A., Jersey City, N. J. Electrode for secondary batteries	460,599	Oct. 6	83	23	57	19
Rosenberg, Aaron, assignor to M. Rosenberg, Philadelphia, Pa. Liniment	444,398	Jan. 6	653	.....	54	129
Rosenberg, Helfred J., Pontotoc, Tex. Wrench	460,062	Sept. 22	2391	597	56	1548
Rosenberg, Morris. (See Rosenberg, Aaron, assignor.)						
Rosenberger, Lyman, Harleysville, Pa. Clip for attaching fly-nets to harness	460,447	Sept. 29	2972	743	56	1667
Rosenberger, William C. (See Benjamin, Tinker, and Rosenberger.)						
Rosenbusch, Andrew. (See Kreitz and Rosenbusch.)						
Rosenbush, Leopold, et al. (See Cole, Erskine A., assignor.)						
Rosenfeld, Joseph, Toledo, Ohio. Combined flower-holder and fly-trap	455,888	July 14	955	249	56	192
Rosenfeld, Louis, New York, N. Y. Metallic water-color in lead tubes	452,583	May 19	1845	464	55	938
Rosenfeld, Samuel J., New York, N. Y. Railway-car	457,444	Aug. 11	861	{ 923 924 }	{ 56 56 }	{ 701 701 }
Rosenfield, William W., New York, N. Y. Suspenders	459,020	Sept. 8	742	180	56	1217
Rosenfield, William W., New York, N. Y., assignor to American Electric Railway Signal Company, Jersey City, N. J. Electric railway-signal	447,906	Mar. 10	1042	{ 261 262 }	{ 54 54 }	{ 1322 1322 }
Rosenfield, William W., assignor of one-third to M. H. Frank, New York, N. Y. Method of and apparatus for making lead-pipe S-traps	454,186	June 16	1509	396	55	1452
Rosenow, Max, Peoria, Ill. Machine for cutting wooden-hoop locks	453,916	June 9	1124	294	55	1370
Rosenow, Max, Peoria, Ill. Barrel-hooping machine	453,917	June 9	1125	294	55	1370
Rosenstock, Moritz, New York, N. Y. Skirt-protector	455,264	June 30	3292	834	55	1804
Rosenthal, Ernestine S. W., Philadelphia, Pa. Draft-guard for cars	460,325	Sept. 29	2802	698	56	1635
Rosenthal, Felix L., New York, N. Y. Skirt-protector	458,039	Aug. 18	1824	475	56	893
Rosentreter, Albert J., assignor of one-half to F. G. Kimman, Rochester, N. Y. Automatic car-brake	450,300	Apr. 14	979	243	55	194
Rosenzweig, Max, New York, N. Y. Sofa-bed	451,172	Apr. 28	2367	588	55	485
Roshong, John J. (See Miller and Roshong.)						
Rosnecht, Joseph C., New York, N. Y. Scraper for mucilage-bottles	449,298	Mar. 31	3275	829	54	1774
Ross, Abbott Q., Cincinnati, Ohio: A. H. Ross, guardian, and assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter	452,719	May 19	2063	519	55	981
Ross, Abbott Q., Cincinnati, Ohio: A. H. Ross, guardian, and assignor to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter	452,720	May 19	2064	519	55	981
Ross, Aida H., guardian. (See Ross, Abbott Q.)						
Ross, Andrew D. (See Thomas, Van A., assignor.)						
Ross, Andrew J., Sioux Falls, S. D. Well-drilling apparatus	459,309	Sept. 8	1190	289	56	1305
Ross, Augustus S., deceased, New York: C. K. Ross, administrator, and assignor to E. Wiman, New Brighton, N. Y. Beater for pulverizing-machines	453,417	June 2	383	99	55	1219
Ross, Charles H., Reading, Mass. Hot-water or steam boiler	457,522	Aug. 11	984	{ 251 252 }	{ 56 56 }	{ 724 724 }
Ross, Christian K., administrator. (See Ross, Augustus S.)						
Ross, D. C. H. (See Carmody, John T., assignor.)						
Ross, David, London, England. Calendar	465,294	Dec. 15	2049	{ 523 524 }	{ 57 57 }	{ 1543 1543 }
Ross, Ebenezer, Toledo, Ohio. Turfing implement	463,548	Nov. 17	2113	556	57	976
Ross, Elmore W., Springfield, Ohio. Carrier attachment for cutting-machines	444,459	Jan. 13	748	{ 195 196 }	{ 54 54 }	{ 156 156 }
Ross, Elmore W., Springfield, Ohio. Feed-cutter	454,920	June 30	2694	{ 689 690 }	{ 55 55 }	{ 1689 1689 }
Ross, Elmore W., Springfield, Ohio. Horse-power	458,596	Sept. 1	73	16, 17	56	1080
Ross, Elmore W., Springfield, Ohio. Feed-cutter	460,268	Sept. 29	2709	{ 675 676 677 }	{ 56 56 56 }	{ 1617 1617 1617 }
Ross, Elmore W., Springfield, Ohio. Feed-cutter	460,269	Sept. 29	2716	677	56	1618
Ross, Elmore W., Springfield, Ohio. Carrier attachment for feed-cutters	461,622	Oct. 20	1760	{ 433 434 }	{ 57 57 }	{ 350 350 }
Ross, Frank A., Livingston, Mont. Insulator	460,448	Sept. 29	2973	{ 743 744 }	{ 56 56 }	{ 1667 1667 }
Ross, George, et al. (See Redican, Joseph, assignor.)						
Ross, George A., et al. (See Palmer, Irenas J., assignor.)						
Ross, Henry C., Ipava, Ill. Unicycle	459,310	Sept. 8	1192	{ 289 290 }	{ 56 56 }	{ 1305 1305 }
Ross, Henry S., New York, N. Y. Packing for stuffing-boxes	457,566	Aug. 11	1058	270	56	739
Ross, Hugh. (See Allen and Ross.)						
Ross, James A., Smith's Creek, Mich. Tire-bolt wrench	456,778	July 28	2377	625	56	478
Ross, John, Chester, assignor of one-half to C. Coates, Jr., Philadelphia, Pa. Furnace-wall	457,371	Aug. 11	751	193	56	679
Ross, John W., trustee. (See Wilson, George R., Jr., assignor.)						
Ross, Joseph G. (See Ashworth, Joel T., assignor.)						
Ross, Lester E., et al. (See Beardsley, Frank C., assignor.)						
Ross, William, Willard, Tex. Shaving and sawdust conveyor	464,186	Dec. 1	272	67	57	1187
Ross, William H., Camden, N. J., assignor of one-half to W. Bryant, Philadelphia, Pa. Jet-condenser	458,540	Aug. 25	2632	640	56	1054
Ross, William H., Camden, N. J., assignor of one-half to W. Bryant, Philadelphia, Pa. Mouth-piece for speaking-tubes	466,140	Dec. 29	3436	879	57	1830
Ross, William S., Madisonville, Ky. Sanitary closet	460,326	Sept. 29	2803	{ 698 699 }	{ 56 56 }	{ 1635 1635 }
Rosberg, Herman, New York, N. Y. Riding-habit	445,203	Jan. 27	1973	510	54	410
Rosser, Thomas, Bellaire, Ohio. Grate and flue	450,940	Apr. 7	579	144	55	112
Rossney, William C., Hyde Park, assignor of one-half to M. J. Scanlan, Boston, Mass. Automatic gas-supply shut-off and regulator	449,178	Mar. 31	3083	777	54	1740

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Rüstad, Thorvald. (See Jakobson, Karl A., assignor.)						
Röstel, Carl, assignor to Grusonwerk, Magdeburg-Buckau, Germany. Friction-brake for gun-carriages	466,261	Dec. 29	3617	{ 925 926	{ 57	1864
Roswald, Raymond F., New York, N. Y. Apparatus for cooling beer	466,047	Dec. 29	3292	840	57	1802
Roth, Alfred P., New York, N. Y. Flange attachment for piano-actions	462,777	Nov. 10	881	231	57	729
Roth, George, Highland, Ill. Machine for liquidizing milk	446,077	Feb. 10	926	236	54	700
Roth, George R., Reading, assignor to W. W. Leshier, Messersville, Pa. Window	447,362	Mar. 3	138	38	54	1144
Roth, John G., South Bend, Ind. Insect-trap	449,138	Mar. 31	3022	764	54	1728
Roth, Joseph A. (See Egg, Gustav A., assignor.)						
Rothe, Friedrich G. H., assignor to W. Heller, Berlin, Germany. Treatment and preparation of gypsum	455,580	July 7	461	-----	56	89
Rothermel, Curtis J., Philadelphia, Pa., assignor to W. C. Dreyer, trustee, New York, N. Y. Machine for decorticating vegetable fibers	460,286	Sept. 29	2742	683	56	1624
Rothert, Anna M., Brooklyn, N. Y. Upper-case treadle attachment for type-writing machines	455,116	June 30	3059	777	55	1759
Rothgery, Leopold, Detroit, Mich. Saw	452,391	May 19	1535	380	55	881
Rothrock, Charles N., assignor of two-thirds to O. W. Carr and E. P. Wharton, Greensborough, N. C. Bed-slat fastener	459,768	Sept. 22	1943	490	56	1463
Rothschild, James, New York, N. Y. Jewelry	451,661	May 5	334	82	55	642
Rothschild, Moses L., et al. (See Genett, Louis J., assignor.)						
Rott, Christian Z. F., Pittsburg, Pa. Machine for printing on glass	451,978	May 12	825	211	55	742
Roththoff, William. (See Schuedling, Frank, assignor.)						
Rotzel, Albert. (See Adams and Rotzel.)						
Roulez, Jules E., Paris, France. Electrical apparatus for reproducing sounds	450,426	Apr. 14	1193	291	55	234
Rounds, Benjamin F., Kansas City, Mo. Artificial foot	457,823	Aug. 18	1463	381	56	825
Rounds, George F., Benton Harbor, Mich. Compound engine	455,670	July 7	600	158	56	117
Roundy, Daniel C., et al., executors. (See Wallace, Casper D., assignor.)						
Rounkles, John W., Farmington, Iowa. Carpet-stretcher	456,432	July 21	1806	477	56	360
Rountree, Philip S., et al. (See Mitchell, Clifford, assignor.)						
Rourk, John, Toronto, Canada. Cable-power	457,842	Aug. 18	1496	389	56	832
Rouse-Duryea Cycle Company. (See Duryea, Charles E., assignor.)						
Rouse, Jonas, Dowagiac, Mich. Chair-seat frame	464,996	Dec. 15	1557	396	57	1452
Rouse, Roswell R., Indianapolis, Ind. Pipe-vise	446,078	Feb. 10	927	226	54	700
Rouse, Seymour A., Indianapolis, Ind. Pump-cylinder	451,073	Apr. 28	2211	547	55	453
Rousseau, Auguste T., Cambridge, Mass. Piano-forte action	445,905	Feb. 3	638	157	54	637
Russel, Louis E., Dijon, France. Tellurian	459,871	Sept. 22	2106	529	56	1496
Routt, Ansell P., assignor of one-half to J. H. Brown, Richmond, Va. Lifting-jack	460,760	Oct. 6	359	89	57	71
Rouveyre, Camille A., Paris, France. Velocipede	444,620	Jan. 13	999	260	54	206
Röver, Adolph B., Binghamton, N. Y. Automatic weighing-scale and indicator	446,208	Feb. 10	1149	{ 281 282	{ 54	739
Rowe, Amos D., assignor of one-half to G. W. Gorum, Newark, N. J. Toy	465,950	Dec. 29	3104	794	57	1765
Rowe, George E., Boston, assignor to C. S. Crain, trustee, Newton, Mass. Advertising-wagon	444,236	Jan. 6	415	{ 103 104	{ 54	82
Rowe, John, Braidwood, and T. B. Jack, Braceville, Ill. Car-coupling	457,672	Aug. 11	1213	312	56	768
Rowe, Joseph, Woods, Tex. Baling-press	463,076	Nov. 10	1357	351	57	823
Rowe, Marvin L., Albany, N. Y. Dental disk-carrier	444,856	Jan. 20	1416	367	54	293
Rowe, Thomas, Ketchum, Idaho. Jigger	458,069	Aug. 18	1865	486	56	902
Rowe, William. (See Coombes and Rowe.)						
Rowe, William J. C., New York, N. Y. Extension-jaw for chucks	456,854	July 28	2509	658	56	501
Rowe, William S. (See Anderson, Harry N., assignor.)						
Rowell, Benning, Chippewa Falls, Wis. Car-coupling	458,861	Sept. 1	490	120	56	1158
Rowell, Benton C., Boston, Mass. Device for automatically operating power car-brakes	444,962	Jan. 20	1600	409	54	327
Rowell, Guilford D., Appleton, Wis. Pulp-screen machine	457,013	Aug. 4	125	30	56	557
Rowell, Guilford D., Appleton, Wis. Clutch	461,713	Oct. 20	1905	471	57	378
Rowell, John F., Hookset, N. H. Wash-boiler	447,584	Mar. 3	516	126	54	1214
Rowell, John S. and T. B., Beaver Dam, Wis. Grain-sieve	452,065	May 12	994	252	55	771
Rowell, Theodore B. (See Rowell, John S. and T. B.)						
Rowell, William M., Fort Meade, assignor to J. A. Harris, Citra, Fla. Machine for budding trees	449,591	Mar. 31	3772	946	54	1866
Rowen, Edward G., Boston, Mass. Indicator for railways	466,141	Dec. 29	3437	{ 879 880	{ 57	1830
Rowen, Nelson, assignor of one-half to S. T. Benson, Denver, Colo. Bicycle	452,196	May 12	1219	308	55	811
Rowland, Alexander M., Brooklyn, N. Y. Rotary bearing for rollers	464,201	Dec. 1	305	74	57	1191
Rowland, Anak A., et al. (See Driver, Charles H., assignor.)						
Rowland, Charles, Washington, D. C. Plate-folding letter-sheet	453,132	May 26	2734	689	55	1120
Rowland, Charles L., trustee. (See White, George, assignor.)						
Rowland, David J., Youngstown, Ohio. Adding-machine	447,363	Mar. 3	141	39	54	1144
Rowland, Henry A., assignor of one-half to R. Puccini and C. D. Osso, Chicago, Ill. Fire-grate attachment	460,220	Sept. 29	2737	681	56	1622
Rowland, James L., Troy, N. Y. Manufacture of artificial stone	448,675	Mar. 24	2300	577	54	1581
Rowland, Milton H., assignor of one-half to J. W. Pennock, Gladstone, Mich. Educational toy or device	462,997	Nov. 10	1234	321	57	798
Rowland, William & Harvey. (See Greipp, Peter O., assignor.)						
Rowland, William L., Philadelphia, Pa. Recovering cyanides from coal-gas	465,600	Dec. 22	2560	-----	57	1650
Rowlands, Evan. (See Ferguson, Thomas, assignor.)						
Rowlett, Jacob V., Richmond, Ind. Lawn-mower	453,377	June 2	304	79	55	1304
Rowlett, Jacob V., Richmond, Ind. Lawn-mower handle	454,932	June 30	2725	695	55	1694
Rowlett, Jacob V., Richmond, Ind. Lawn-mower handle	466,107	Dec. 29	3375	862	57	1818
Rowlett, Jacob V., Richmond, Ind. Pawl-and-ratchet mechanism	461,524	Oct. 20	1607	393	57	323
Rowley, Arthur, Claverack, N. Y. Blind-stop	453,378	June 2	305	80	55	1304
Rowley, George W., Taylor, Oreg. Cable-clamping device	456,206	July 21	1424	377	56	290
Rowley, James F., Des Moines, Iowa. Artificial foot	445,662	Feb. 3	254	63, 64	54	558
Rowley, John T., Johnstown, Pa. Machinery for shaping iron or steel axles	445,083	Jan. 20	1775	457	54	362
Roy, Rosario, Richmond, Va. Rotary brush						
Royal Axminster Carpet Company. (See Sinclair, Alexander, assignor.)						
Royal Machine Company. (See Brown, Charles F., assignor.)						
Royce, Danforth H. and C. T. Tifts, assignors to J. G. Pulling, Columbus, Ohio. Steam-pump	445,412	Jan. 27	2278	591	54	471
Royer, Charles L., Halifax, England. Fuled raw hide and making the same	456,855	July 28	2510	-----	56	501
Royle, John, Jr. (See Royle, Vernon and J., Jr.)						
Royle, John J., Manchester, England. Apparatus for supplying water to wash-basins	455,117	June 30	3061	778	55	1760
Royle, John J., Manchester, England. Apparatus for supplying water to wash-basins	460,888	Oct. 6	549	138	57	108
Royle, Vernon, Paterson, N. J. Faller for the stop-motions of winding and spinning machines	452,066	May 12	996	252	55	771
Royle, Vernon and J., Jr., Paterson, N. J. Machine for covering wires, cables, &c., and for making tubing and cord	457,482	Aug. 11	932	237	56	713

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Rozar, James W., Rawlins, Ga. Fertilizer-distributor	452,240	May 12	1280	322	55	825
Rube, John A., Beebe, Ark. Harrow	457,218	Aug. 4	450	118	56	617
Rube, John A., Beebe, Ark. Harrow	464,522	Dec. 8	800	196	57	1297
Rube, John A., and H. Bartholomew, Beebe; said Rube assignor to J. F. Norman, Kuoxville, Ark. Ice-cream freezer	456,910	July 28	2598	683	56	518
Rubol, Isaac, Chicago, Ill. Range	445,289	Jan. 27	2098	542	54	473
Rubel, Leonhard, New York, N. Y. Eyeglasses	459,234	Sept. 8	1077	263	56	1281
Rubel, Levi G., Chicago, Ill. Binder	445,357	Jan. 27	2200	571	54	455
Rubens, Morris. (See Milliken, John A., assignor.)						
Ruby, Charles W. (See Foote and Ruby.)						
Ruby, Joseph, Beckleysville, Md. Veterinary instrument	453,508	June 2	523	134	55	1246
Ruby, Joshua C., Philadelphia, Pa. Machine for molding confections, &c.	451,523	May 5	116	29, 30	55	601
Ruby, Joshua C., Philadelphia, Pa. Machine for molding confections	457,372	Aug. 11	753	194	56	679
Ruch, George. (See Ruch, John and J., Jr., assignors.)						
Ruch, John and J., Jr., assignors to themselves and G. Ruch, Philadelphia, Pa. Moth-proofed hair and preparing the same	459,897	Sept. 22	2151		56	1504
Ruch, Sylvester, et al. (See Good, Israel F., assignor.)						
Ruckdeschel, Johann, Plauen, Germany. Embroidering-machine	458,040	Aug. 18	1824	476	56	893
Rudd, Alexander H., and W. P. Mendenhall, Media, Pa. Playing-card	449,274	Mar. 31	3227	815	54	1767
Ruddell, George, New York, N. Y. Platform-elevator	445,610	Feb. 3	144	37	54	539
Ruddell, George, New York, N. Y. Platform-elevator	445,611	Feb. 3	145	38	54	539
Ruddock, Joseph M., Chatham, New Brunswick, Canada. Can-heading machine	459,147	Sept. 8	944	227, 228	56	1257
Ruddy, James J. and T. A., Aurora, Ill. Apparatus for smoothing ribbons, &c.	457,881	Aug. 18	1568	407	56	845
Ruddy, Robert. (See Kaczander and Ruddy.)						
Ruddy, Thomas A. (See Ruddy, James J., and T. A.)						
Rudolf, John, deceased; M. A. Rudolf administratrix, San Francisco, Cal. Piano-action.	444,057	Jan. 6	115	29	54	25
Rudolf, Martha A., administratrix. (See Rudolf, John.)						
Rudolph, Albert, New York, N. Y. Combined rolling chair and child's carriage	461,276	Oct. 13	1130	288	57	225
Rudolph, Alexander, San Francisco, Cal. Window-sash	449,764	Apr. 7	185	46	55	38
Rudolph, Christian, assignor to the firm of K. Oehler, Offenbach, Germany. Brown dye.	462,414	Nov. 3	317		57	611
Rudolph, Christian, assignor to the firm of K. Oehler, Offenbach, Germany. Blue-black azo dye	462,415	Nov. 3	318		57	611
Rudolph, Christian, assignor to Firm of K. Oehler, Offenbach-on-the-Main, Germany. Brown azo dye	465,116	Dec. 15	1769		57	1490
Rudolph, Ernst B., deceased; W. E. Boulter, Washington, D. C., administrator. Glove-sewing machine	449,926	Apr. 7	422	105	55	82
Rudolph, Ernst B., deceased; W. E. Boulter, Washington, D. C., administrator. Leading-in device for overedge sewing-machines	449,927	Apr. 7	423	106	55	82
Rudolph, Justus H., Walnutport, Pa. Slate-dressing machine	461,450	Oct. 20	1426	359, 360	57	290
Rudolph, Paul, assignor to C. Zeiss, Jena, Germany. Photographic objective	444,714	Jan. 13	1138	293, 294	54	233
Rue, Frank B. (See Ely, Danser, and Rue.)						
Rue, Samuel C., Asbury Park, N. J. Music-stand case and portfolio	456,433	July 21	1807	477	56	360
Ruebhausen, John N., Chicago, Ill. Furnace	464,187	Dec. 1	273	68	57	1187
Ruebhausen, John N., Chicago, Ill. Gas-stove	464,188	Dec. 1	276	68	57	1187
Ruef, Charles S., assignor to Grand Detour Plow Company, Dixon, Ill. Cultivator	444,186	Jan. 6	340	53	54	69
Ruef, Charles S., assignor to Grand Detour Plow Company, Dixon, Ill. Disk harrow	445,787	Feb. 3	447	112	54	599
Ruef, Charles S., assignor to Grand Detour Plow Company, Dixon, Ill. Harrow	450,068	Apr. 7	647	163	55	127
Rueger, Charles C., Butte City, Mont. Memorandum-book	451,135	Apr. 28	2310	572	55	473
Rueping, Robert, assignor of one-fourth to W. H. Chadsey, Chicago, Ill. Combined railway switch and crossing	462,852	Nov. 10	1009	260	57	755
Rueter, Carl. (See Hoduit, John, assignor.)						
Rueter, Samuel, New Philadelphia, Ohio. Pliers	463,921	Nov. 24	2718	706	57	1099
Ruff, August, assignor of two-thirds to J. Grimm and H. Polst, St. Louis, Mo. Instrument for handling bottles, &c.	461,805	Oct. 20	2061	508	57	407
Ruff, William J., Quincy, Ill. Spraying device	453,198	June 9	1126	295	55	1370
Ruge, Frank, Woonsocket, R. I. Gate-hinge	448,456	Mar. 17	1947	490	54	1507
Ruge, Frank, Woonsocket, R. I. Gate-latch	457,936	Aug. 18	1668	436	56	863
Rugg, J. E. (See Fitzgerald, Charles, assignor.)						
Ruggles, Harry A., Manistique, Mich. Snow-plow	460,761	Oct. 6	360	89	57	71
Rühl, Henry. (See Pollett, Hiram, assignor.)						
Ruhle, George P., Swengel, Pa. Fence	456,064	July 14	1211	319	56	238
Rulon, David G., Monmouth, Ill. Hanger for picture or mirror frames	449,496	Mar. 31	3630	914	54	1841
Rumble, Harry H., Westgate-on-Sea, England. Adding-machine	462,384	Nov. 3	268	65, 66	57	602
Rummel, Joseph P., et al. (See Williams, Hubbard D. B., assignor.)						
Rumpf, Martiu H., Paris, France. Fabric-holding frame	464,442	Dec. 1	668	164	57	1262
Rumsey, William D., Detroit, Mich. Vehicle-spring	462,330	Nov. 3	176	45	57	584
Rundle, Anthony M. (See Murphy, Frank J., assignor.)						
Rung, Georg A., Copenhagen, Denmark. Sounding apparatus	466,128	Dec. 29	3415	875	57	1826
Runkle, Howard A., Reading, Pa. Drip-cup for umbrellas	461,849	Oct. 27	2126	524	57	429
Runkle, William Z., Delphi, Ind. Draft-equalizer	454,069	June 16	1339	350	55	1419
Runnels, George F., Waco, Nohr. Apparatus for watering hogs	458,262	Mar. 17	1620	413	54	1444
Runser, Sebastian, Greenville, Pa. Traction device for locomotives	450,532	Apr. 14	1337	329	55	263
Runser, Sebastian, Greenville, Pa. Setting for steam-boilers	454,771	June 23	2146	620	55	1631
Runyan, Arthur F., Yorktown, Ind. Corn-planter	447,205	Feb. 24	2804	693, 694	54	1082
Runyon, Edwin E., Burns City, Tex. Lawn-mower	445,616	Feb. 3	154	40	54	541
Runyon, Edwin E., Pilot Point, Tex. Suspension-bridge	446,209	Feb. 10	1155	283	54	740
Runyon, William W., Corning, Iowa. Bill-file	453,664	June 9	766	198	55	1300
Rupe, Salathiel C., Carrollton, Mo. Lemon presser or squeezer	447,975	Mar. 10	1164	294, 295	54	1344
Ruppel, Henry, assignor to Dangler Stove and Manufacturing Company, Cleveland, Ohio. Water-back gas cooking-stove	449,179	Mar. 31	3085	778	54	1740
Ruppel, Henry, assignor to Dangler Stove and Manufacturing Company, Cleveland, Ohio. Vapor-burner	455,361	July 7	98	28	56	23
Ruppel, Henry, assignor to Dangler Stove and Manufacturing Company, Cleveland, Ohio. Vapor-generating device for vapor-burners	461,850	Oct. 27	2127	524, 525	57	429
Ruppel, Henry, Cleveland, Ohio, assignor to Dangler Stove and Manufacturing Company. Hydrocarbon-burner	464,717	Dec. 8	1106	274	57	1355
Ruppert, Henry, Chicago, Ill. Car-coupling	452,067	May 12	997	252	55	771
Rusden, Philbert A., Providence, R. I. Blanket washing and cleaning machine for calico-printing	460,353	Sept. 29	2851	710	56	1644

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Rushforth, Jonathan. (See Phillipson, John, assignor.)						
Rushforth, William H. (See Krepps, Virgil A., assignor.)						
Rushmore, Samuel W., Brooklyn, N. Y. Electric-arc lamp	454,294	June 16	1666	437	55	1482
Rushmore, Samuel W., Brooklyn, N. Y. Electric-arc lamp	454,295	June 16	1668	438	55	1483
Rnshton, Israel M., Minneapolis, Minn. Clothes-line or hammock fastener	452,804	May 26	2196	551	55	1016
Rusk, Hugh R., Rutherford, N. J. Coat-holder	447,976	Mar. 10	1166	295	54	1345
Rusk, Samuel E., Haines Falls, N. Y. Wind-engine	458,070	Aug. 18	1867	486 487	56	902
Russ, Alfred, assignor of one-half to J. Vessel, East Boston, Mass. Harness	445,840	Feb. 3	543	132	54	617
Russ, Augustus, et al., executors. (See Weston, David M.)						
Russ, Cyrus, Beamsville, Canada. Scouring and fanning mill for cleaning grain	456,207	July 21	1425	377	56	290
Russell, Allen A., Indianapolis, Ind., assignor to Russell & Company, Massillon, Ohio.						
Straw-stacker	460,889	Oct. 6	550	139	57	108
Russell, Charles A., Otsego, Mich. Metal body for road-wagons	453,868	June 9	1060	277	55	1358
Russell, Charles A., Providence, R. I. Detachable head for rings, &c.	461,926	Oct. 27	2262	559	57	456
Russell & Company. (See Russell, Allen A., assignor.)						
Russell & Company. (See Heggem, Charles O., assignor.)						
Russell, Daniel E., Dumarton, Wis. Thill-coupling	454,118	June 16	1406	367	55	1431
Russell, Edwin C., Boston, Mass. Disk-carbon holder for electric lamps	446,549	Feb. 17	1719	421	54	866
Russell, Edwin C., assignor to Russell Electric Company, Boston, Mass. Electric-arc lamp.	462,673	Nov. 3	708	182	57	687
Russell Electric Company. (See Carpenter, Fred H., assignor.)						
Russell Electric Company. (See Chapman, Henry E., assignor.)						
Russell Electric Company. (See Russell, Edwin C., assignor.)						
Russell & Erwin Manufacturing Company. (See Burgess, Charles M., assignor.)						
Russell & Erwin Manufacturing Company. (See Gillette, Horace L., assignor.)						
Russell & Erwin Manufacturing Company. (See Jones, Horace K., assignor.)						
Russell & Erwin Manufacturing Company. (See Lyons, Thomas, assignor.)						
Russell & Erwin Manufacturing Company. (See Russell, Henry E., Jr., assignor.)						
Russell, George F., Lawrence, Mass. Pulp-digester	445,235	Jan. 27	2020	521	54	418
Russell, Hamlin G., Lincoln, Ill. Car-coupling	454,385	June 16	1805	471	55	1507
Russell, Hamlin G., deceased, Lincoln, Ill.; D. Gillispie, L. J. Sims, and L. A. Russell, executors. Car-coupling	461,380	Oct. 13	1309	330	57	261
Russell, Henry E., Jr., New Britain, Conn. Key	450,340	Apr. 14	1057	259	55	209
Russell, Henry E., Jr., New Britain, Conn. Lock	450,341	Apr. 14	1057	259	55	209
Russell, Henry E., Jr., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Latch	450,339	Apr. 14	1055	258 259 425 426 427	55	209
Russell, Jacob, Brooklyn, N. Y. Machine for making timber-hangers	445,007	Jan. 20	1661	426	54	340
Russell, John, Long Island City, N. Y. Steam steering-gear	465,730	Dec. 22	2743	700	57	1687
Russell, Joseph. (See Stanley and Russell.)						
Russell, Josephine, Tabor, Iowa. Fly-brush	444,963	Jan. 20	1601	409	54	328
Russell, Lydia A., et al., executors. (See Russell, Hamlin G.)						
Russell, Nathaniel D., Laconia, N. H. Jack-screw	459,769	Sept. 22	1944	490	56	1463
Russell, Philip G., Washington, D. C. Projectile	463,922	Nov. 24	2718	706	57	1099
Russell, Thomas, Fort Douglas, Utah Ter. Combined handle and brush	450,041	Apr. 7	579	144	55	112
Russell, William A. (See Dawes, John C., assignor.)						
Russell, William A., Los Angeles, Cal. Lawn or orchard irrigator	465,207	Dec. 15	1908	484	57	1516
Russell, William G., Jr., Winchester, Va. Trunk	446,890	Feb. 24	2262	562	54	981
Russell, William H., Steubenville, Ohio. Grate	452,734	May 19	2083	524	55	985
Rust, Ezra. (See Good and Thorne, assignors.)						
Ruthenberg, August, Rochester, N. Y. Extension-ladder truck	456,224	July 21	1449	384	56	294
Rutherford, James. (See Campbell, Matthew P., assignor.)						
Rutherford, John W., Honey Grove, Tex. Plow	459,415	Sept. 15	1376	345	56	1350
Rutherford, William G., Higginsville, Mo. Bee-house	460,219	Sept. 29	2634	657	56	1603
Rutherford, William T., and A. J. Roberson, assignors of one-third to D. H. Switzer, Napa, Cal. Pillow-sham holder	458,758	Sept. 1	318	77	56	1126
Ruthrauff, John M., Dixon, Ill. Kneading-machine	461,892	Oct. 27	2197	542	57	443
Ruths, Charles G., San Francisco, Cal. Revolving-cylinder engine	456,315	July 21	1600	423	56	322
Rutledge, William O., Galveston, Tex. Fire-escape	455,641	July 7	555	144	56	108
Rutschman, Francis S., Philadelphia, Pa. Soap-press	462,064	Oct. 27	2458	609	57	493
Rutter, Alfred T., Cape Town, Cape of Good Hope. Harness	464,589	Dec. 8	894	220	57	1315
Rutter, George E., London, England. Counterpoising apparatus for weighing and strength-testing machines	451,955	May 12	789	200	55	736
Rutter, George E., London, England. Coin-free weighing or similar machine	454,529	June 23	2032	526 527	55	1559
Rutter, John H. (See Queen, William, assignor.)						
Rutzler, Enoch. (See Cunningham, William F., assignor.)						
Rund, Edwin. (See Goetz and Rund.)						
Rund, Edwin, assignor to Fuel Gas and Manufacturing Company, Pittsburg, Pa. Fluid-meter	451,881	May 5	658	166 167	55	704
Rund, Edwin, assignor to Fuel Gas and Manufacturing Company, Pittsburg, Pa. Fluid-meter	451,882	May 5	660	167 168	55	704
Rund, Edwin, assignor to Fuel Gas and Manufacturing Company, Pittsburg, Pa. Water-heater	450,513	Sept. 29	3097	774	56	1692
Ryan, Arthur, assignor of one-half to B. Lindsay, Pierce, Neb. Hay gatherer and stacker	453,665	June 9	767	198	55	1301
Ryan, Daniel W. (See Pietsch, Herman, Jr., assignor.)						
Ryan, James, et al. (See Woncher, Martin V., assignor.)						
Ryan, John, New York, N. Y. Pipe-wrench	461,714	Oct. 20	1906	472	57	378
Ryan, John, New York, N. Y., assignor to himself, and S. G. Smith, Plainfield, N. J. Screw-wrench	447,163	Feb. 24	2739	678	54	1068
Ryan, Michael B., Denver, Colo. Convertible car	454,921	June 30	2702	691	55	1690
Ryan, Rafael. (See Udstad and Ryan.)						
Ryan, Thomas. (See Kearney, Patrick J., assignor.)						
Ryan, Thomas. (See McGill and Ryan.)						
Ryan, William H. (See Patterson and Ryan.)						
Ryburn, Harry, Bloomington, Ill. Sweat-pad	456,065	July 14	1212	319	56	239
Ryder, Andrew V., Unionport, Ohio, and H. G. Chamberlin, Hudson, Mich. Sulky-plow	453,509	June 2	524	135	55	1247
Ryder, Charles M., assignor of one-half to Smith & Sayre Manufacturing Company, New York, N. Y. Gas-producer	458,378	Aug. 25	2380	581	56	1005
Ryder, David N., et al. (See Abbotts, James A., assignor.)						
Ryder, Elisha, Hartford, Conn. Envelope moistener and sealer	465,498	Dec. 22	2380	609	57	1617
Ryder, Joshua H., assignor of one-half to S. M. Littleton, Brockton, Mass. Sole-buffing machine	464,232	Dec. 1	355	86	57	1201

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Ryder, Richard H., <i>et al.</i> (See Abbots, James A., assignor.)						
Ryder, Samuel H., Kensico, N. Y. Bottle-stopper	453,666	June 9	769	199	55	1301
Ryder, Sumner G. (See Palmer and Ryder.)						
Rye, Thor, Minneota, Minn. Snow-plow	453,942	June 9	1158	303	55	1377
Ryer, Edward C., Philadelphia, Pa. Self-inking hand-stamp	454,499	June 23	1985	516	55	1551
Rymal, John J., Minneapolis, Minn. Conveyer	459,113	Sept. 8	897	215	56	1247
Rymer, William, Detroit, Mich. Steering apparatus	448,263	Mar. 17	1620	413	54	1445
Ryon, Eppa H., Canton, Ohio. Wheeled scoop	451,074	Apr. 28	2212	547	55	453
Ryon, Eppa H., Aurora, Ill. Watch-dial enameling and baking machine	459,949	Sept. 22	2327	559	56	1517
Ryon, Eppa H., Aurora, Ill. Watch-dial-enameling machine	459,968	Sept. 22	2349	565	56	1521
S. S. White Dental Manufacturing Company. (See Browne, Arthur W., assignor.)						
S. S. White Dental Manufacturing Company. (See Johnston and Browne, assignors.)						
S. W. Jamison Boot and Shoe Crimping Machine Company. (See Frost, Walter E., assignor.)						
S. W. Jamison Boot and Shoe Crimping Machine Company. (See Jamison, Samuel W., assignor.)						
Sabates, José. (See Maigrot and Sabates.)						
Sabbaton, Frederick A., Troy, N. Y. Gasometer	452,616	May 19	1894	476	55	948
Sabel, Friedrich W., Coblenz, Germany. Engraving-machine	460,762	Oct. 6	362	89, 90	57	71
Sabel, Stephen B., New Bedford, Mass. Railway-switch	449,704	Apr. 7	93	24	55	20
Sabel, Friedrich W., Coblenz, Germany. Pencil-sharpener	448,839	Mar. 24	2557	641	54	1630
Sabin, Charles R., St. Helena, Cal. Dental articulator	457,937	Aug. 18	1669	437	56	863
Sabin, Ransom, Shelby, Mich. Portable pantry	448,372	Mar. 17	1814	457	54	1482
Sabourin, David C. and J. Lowell, Mass. Vise	464,523	Dec. 8	802	196	57	1297
Sabourin, Joseph. (See Sabourin, David C. and J.)						
Sacco, Carlo, Genoa, Italy. Kneading-machine	445,204	Jan. 27	1974	510	54	410
Sachleben, William L. (See Allen, Sachleben, and Walters.)						
Sacker, Jacob. (See Wichler, Adam, assignor.)						
Sackett, Fred, and W. F. Irwin, Clearfield, Pa. Steam-trap	464,390	Dec. 1	596	147	57	1247
Sackett, Hiram B., Council Bluffs, Iowa. Screen	461,250	Oct. 13	1097	280	57	219
Sackett, James E., Grahamsville, N. Y. Rotary steam-engine	449,864	Apr. 7	333	85	55	66
Sadleir, Charles A. (See Richardson and Sadleir.)						
Sadler, John J. (See Best and Sadler.)						
Sadler, William H., assignor to Dutcher Temple Company, Hopedale, Mass. Loom-temple	457,495	Aug. 11	954	242	56	717
Saegmuller, George N., Washington, D. C. Equatorial mounting	448,081	Mar. 10	1321	338	54	1377
Safety Car Heating and Lighting Company. (See Dixon, Robert M., assignor.)						
Safety Ferrule Company. (See Neiman, Alvin B., assignor.)						
Safford, Frank D., Camden, N. J. Cutting and stamping machine	453,589	June 2	642	165	55	1269
Safford, Joseph A., Malden, Mass. Leather-splitting machine	462,166	Oct. 27	2615	532 533 460 461	57	523
Safford, Joseph A., Malden, Mass. Leather-splitting machine	465,145	Dec. 15	1815	460 461 451 452	57	1499
Safford, Joseph A., Malden, Mass. Leather-rolling machine	466,083	Dec. 29	3336	452 453 454	57	1811
Sagar, Charles H., Auburn, N. Y. Sampling-case for perfumes	454,772	June 23	2417	621	55	1631
Sagelsdorff, Gustav R., Medford, Wis. Animal-collar	448,546	Mar. 17	2077	521	54	1532
Sagendorph, Longley L., Philadelphia, Pa. Metallic lathing	447,084	Feb. 24	2583	641	54	1040
Sagendorph, Longley L., Philadelphia, Pa. Metallic lathing	447,085	Feb. 24	2584	641	54	1040
Sagendorph, Longley L., Philadelphia, Pa. Metallic facing for buildings	448,732	Mar. 24	2398	600	54	1600
Sagendorph, Longley L., Philadelphia, Pa. Metallic facing-plate	448,733	Mar. 24	2399	600	54	1600
Sager, James H., assignor of one-half to W. G. Rich, Rochester, N. Y. Seat attachment for bicycles.	453,212	June 2	48	13	55	1157
Saggese, Alexandre. (See Becker and Saggese.)						
Sahler, Carl, assignor to the firm of F. A. Herbertz, Cologne, Germany. Cupola smelting-furnace	445,381	Jan. 27	2227	577	54	460
Sailor, David A., Little Rock, Ark. Cotton-gin	451,279	Apr. 28	2562	631 632	55	521
Sainsevain, Paul C., San José, Cal. Gas or gasoline-vapor engine	461,802	Oct. 20	2055	507	57	407
Sainte-Marie, Robert de, Paris, assignor of one-half to B. Trayvon, Lyons, France. Fare-register for vehicles	452,123	May 12	1096	279 280	55	788
Saladee, Cyrus W., Cleveland, Ohio. Platform-spring for road-wagons	448,790	Mar. 24	2488	622	54	1617
Saladee, Cyrus W., Cleveland, Ohio. Running-gear for road-wagons	451,524	May 5	120	30	55	602
Saladee, Cyrus W., Cleveland, Ohio. Running-gear for road-wagons	451,525	May 5	121	31	55	602
Salathé, Frederick, Jersey City, N. J., assignor, by mesne assignments, to Litho-Carbon Company, New York, N. Y. Composition of matter for insulating purposes	452,760	May 19	2131		55	995
Salathé, Frederick, Jersey City, N. J., assignor, by mesne assignments, to Litho-Carbon Company, New York, N. Y. Paint, varnish, japan, &c	452,761	May 19	2132		55	995
Salathé, Frederick, Jersey City, N. J., assignor, by mesne assignments, to Litho-Carbon Company, New York, N. Y. Impervious tissue	452,762	May 19	2134		55	995
Salathé, Frederick, Jersey City, N. J., assignor, by mesne assignments, to Litho-Carbon Company, New York, N. Y. Composition of matter	452,763	May 19	2135		55	995
Salathé, Frederick, Jersey City, N. J., assignor, by mesne assignments, to Litho-Carbon Company, New York, N. Y. Hydrocarbon product	452,764	May 19	2136	536	55	995
Salathé, Frederick, Jersey City, N. J., assignor, by mesne assignments, to Litho-Carbon Company, New York, N. Y. Composition of matter for insulating purposes	452,765	May 19	2138		55	995
Salathé, Charles O. (See Wheeler and Salathé.)						
Salenius, Erik G. N., Stockholm, Sweden. Separating butter from unskimmed milk or cream and apparatus for carrying out the same	448,373	Mar. 17	1815	458	54	1482
Salisbury, David R., Lansing, Mich. Combined money drawer and recorder	455,519	July 7	345	89	56	68
Salisbury, George P., assignor to E. K. Plimly, Philadelphia, Pa. Pasting device	445,940	Feb. 3	695	169	54	649
Salisbury, George P., New Haven, Conn., assignor to E. K. Plimly, Philadelphia, Pa. Machine for cutting paper tubes	447,740	Mar. 3	740	186 187	54	1258
Salisbury, Harold A., Vinson, Oreg. Clasp for connecting timbers	448,082	Mar. 10	1321	338	54	1377
Salisbury, Jerome A. (See Mathewson, Nathan F., assignor.)						
Salisbury, Levi E., assignor to H. A. Church, Providence, R. I. Knitting-machine	455,464	July 7	259	66, 67	56	52
Salisbury, Ralph & Co. (See Hunt, Ozello R., assignor.)						
Salisbury, S. Emerson, <i>et al.</i> (See Foose, George C., assignor.)						
Salisbury, William R., Lake City, Iowa. Washing-machine	459,311	Sept. 8	1195	290	56	1306
Salisch, Charles E. (See Knapp and Salisch.)						
Salberg, Magnus, assignor to C. F. Jacobs, Chicago, Ill. Wire-stretcher	454,988	June 30	2828	719	55	1714
Sallee, William. (See Gallup and Sallee.)						
Salley, Daniel J., assignor of one-fourth to C. S. Lawrance, Sapa, Miss. Car-coupling	455,692	July 7	635	168	56	123

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Sallinger, F. Maurice, <i>et al.</i> (See Bonnet, Jean M. G., assignor.)						
Salmon, Franklin J., Barton, N. Y. Road-cart	454,687	June 23	2295	588	55	1607
Salmon, James. (See Duncan and Salmon.)						
Salmon, Pomeroy L., Rochester, N. Y., assignor to Steam Gauge and Lantern Company.						
Apparatus for drying wire-cloth	448,888	Mar. 24	2636	062	54	1645
Salom, Pedro G. (See Morris and Salom.)						
Salomon, Carl, Brunswick, Germany. Drying, desiccating, and roasting apparatus	461,550	Oct. 20	1645	402	57	330
Salomon, Siegmund L., New York, N. Y. Labeling-machine	447,907	Mar. 10	1047	262	54	1324
Salsberg, David, <i>et al.</i> (See Lewin, Jacob, assignor.)						
Salter, Alfred, <i>et al.</i> (See Crowley, Richard J., assignor.)						
Salter, Alfred, <i>et al.</i> (See Morgan and Crowley, assignors.)						
Salter, George W., Brooklyn, N. Y. Feed-bag	457,032	Aug. 4	152	36	56	562
Salter, Marvin R., Ithaca, Mich. Copy-holder	448,457	Mar. 17	1948	490	54	1507
Saltsman, Ida A. (See Becker, Henry S., assignor.)						
Saltzkorn, Emil, Dresden, Germany. Machine for beveling or mitering the edges of paste-board	465,540	Dec. 22	2465	628	57	1632
Saltzkorn, Emil, and L. Nicolai, Dresden, Germany. Machine for cutting pasteboard, &c.	454,968	June 30	2783	710	55	1705
Saltzkorn, Emil, and L. Nicolai, Dresden, Germany. Pasteboard-box machine	455,767	July 14	764	{ 201 202 }	{ 56 56 }	156
Saltzkorn, Emil, and L. Nicolai, Dresden, Germany. Machine for connecting the corners of pasteboard boxes	456,639	July 28	2139	566	56	433
Salzman, Christian H., Chicago, Ill., assignor to D. M. Osborne & Company, Auburn, N. Y.	455,602	July 7	499	{ 129 130 }	{ 56 56 }	96
Mowing and reaping machine						
Sammons, Jacob S., Marshalltown, Iowa. Bill-file	459,471	Sept. 15	1459	367	56	1365
Sample, Hamilton, Brighton, England. Apparatus for treating or taming horses	453,727	June 9	864	224	55	1319
Sample, Henry C., Ravenswood, assignor to H. W. Matthews, Chicago, Ill. Galvanic battery	455,693	July 7	636	168	56	123
Sample, William H., Albany, N. Y. Scissors	463,455	Nov. 17	1959	511	57	948
Sample, William T., Greenville, Pa. Vehicle-spring	450,704	Apr. 21	1644	395	55	336
Sample, William T., Greenville, Pa. Vehicle-spring	458,597	Sept. 1	76	17	56	1081
Sampson Automatic Heel Burnishing Machine Company. (See Sampson, Winslow F., assignor.)						
Sampson, Charles H., and P. J. Wright, Minneapolis, Minn. Valve-dressing machine	464,617	Dec. 8	935	231	57	1324
Sampson, John, Waitsburg, Wash. Churn	459,653	Sept. 15	1766	444	56	1422
Sampson, John E., assignor to New Haven Manufacturing Company, New Haven, Conn. Stop mechanism for lathes	457,974	Aug. 18	1728	453	56	875
Sampson, Winslow F., Goffstown, assignor to Sampson Automatic Heel Burnishing Machine Company, Manchester, N. H. Heel-burnishing machine	444,021	Jan. 6	56	16	54	14
Sampson, Winslow F., Goffstown, assignor to Sampson Automatic Heel Burnishing Machine Company, Manchester, N. H. Heel-burnishing machine	444,388	Jan. 6	631	{ 164 165 }	{ 54 54 }	124
Sampson, Winslow F., Goffstown, assignor to Sampson Automatic Heel Burnishing Machine Company, Manchester, N. H. Heel-burnishing machine	456,066	July 14	1213	319	56	239
Sampson, Winslow F., Saugus, assignor of two-thirds to A. H. Whitten and G. W. Lascell, Lynn, Mass. Device for burnishing or finishing heels, &c	462,951	Nov. 10	1170	303	57	785
Samuel, André. (See Samuel, Emile and A.)						
Samuel, Edward, assignor to W. Wharton, Jr., and Company, Incorporated, Philadelphia, Pa. Crossing for conduit-railways	456,434	July 21	1807	478	56	361
Samuel, Edward, assignor to William Wharton, Jr., and Company, Incorporated, Philadelphia, Pa. Rail-joint						
Samuel, Emile and A., Neuville, France. Machine for printing fabrics	464,793	Dec. 8	1220	304	57	1376
Samuel, Leopold S., Newark, N. J. Stiffener for flannel-shirt collars	453,362	June 2	281	75	55	1200
Samuels, Edwin J., and F. E. Bebrandt, Janesville, Wis. Railway-signal	447,364	Mar. 3	142	39	54	1144
Samuels, Izak, New York, N. Y. Toy fishing apparatus	463,691	Nov. 24	2358	{ 617 618 }	{ 57 57 }	1031
Samuels, Jonathan H., Moline, Ill. Band and tire setting machine	464,391	Dec. 1	599	148	57	1248
Samuels, Marks, New York, N. Y. Folding bed	444,547	Jan. 13	894	232	54	186
Sanborn, Albert E. (See Merrow and Sanborn.)	464,803	Dec. 8	1235	307	57	1379
Sanborn Exercising Machine Company. (See Sanborn, George S., assignor.)						
Sanborn, George E. (See Edgcomb and Sanborn.)						
Sanborn, George S., Lynn, Mass., assignor to Sanborn Exercising Machine Company, Portland, Me. Exercising apparatus	444,674	Jan. 13	1086	281	54	223
Sanborn, John W. (See Closs, Peter, assignor.)						
Sanborn, Thomas P., Indianapolis, Ind. Valve mechanism	465,208	Dec. 15	1909	484	57	1517
Sanborn, William W. (See Frost, Walter E., assignor.)						
Sanche, Hercules, Detroit, Mich. Hand-held for elevator shipper-ropes	450,697	Apr. 21	1635	392	55	335
Sandberg, John P., assignor to Streets' Western Stable Car Line, Chicago, Ill. Latch	451,526	May 5	123	31	55	603
Sander, Charles, assignor of one-third to F. C. Shaw, Philadelphia, Pa. Box for tooth-powder, &c	459,379	Sept. 8	1314	327	56	1329
Sander, Hermann W., assignor of one-half M. D. Memmel, St. Louis, Mo. Electric-arc lamp	458,500	Aug. 25	2572	626	56	1041
Sanderlin, Thomas M., Norfolk, Va. Paint	455,118	June 30	3063		55	1760
Sanders, George A. (See Pepper, Davis, and Sanders.)						
Sanders, George A., <i>et al.</i> (See Newman, Nelson, assignor.)						
Sanders, Jeremiah K. (See James and Sanders.)						
Sanders, John J., New York, N. Y. Blanket for ironing-boards	457,033	Aug. 4	153	37	56	563
Sanders, John M., Dalton, Ga. Baling-press	450,301	Apr. 14	980	243	55	194
Sanders, Newell, and J. Buchanan, assignors to Chattanooga Plow Company, Chattanooga, Tenn. Side-hill plow	460,404	Sept. 29	2919	729	56	1656
Sanders, William, assignor of one-half to T. Henderson, Biardtown, Tex. Bale-box attachment	452,287	May 12	1357	338	55	839
Sanders, William H., Marion, Ind. Mailing-machine	461,277	Oct. 13	1132	289	57	225
Sanders, Wiltshire, and J. B. Rafferty, Reno, Nev. Bier	450,894	Apr. 21	1939	{ 475 476 }	{ 55 55 }	391
Sanderson, Frederick, Chicago, Ill. Game and advertising device	451,956	May 12	790	200	55	736
Sanderson, Frederick, Chicago, Ill. Type-writer cabinet	458,950	Sept. 1	638	156	56	1190
Sanderson, Hugh J., and A. H. Reed, London, England. Decortication of wheat and apparatus therefor	458,501	Aug. 25	2573	627	56	1041
Sanderson, John H., F. T. Mecke, and N. Y. Landis, Philadelphia, Pa., said Mecke and Landis assignors to said Sanderson. Card-table	462,933	Nov. 10	1149	297	57	781
Sanderson, William H., and O. O. Ozias, said Ozias assignor to himself and E. Canby, Dayton, Ohio. Weighing and price scale	451,075	Apr. 28	2214	548	55	453
Sandhofer, Joseph. (See Allen and Sandhofer.)						
Sandlass, Charles A., Baltimore, Md. Compression-cock	460,728	Oct. 6	314	77	57	62
Sandoz-Barbier, Paul, assignor to Marchand & Sandoz, Chaux-de-Fonds, Switzerland. Stop-watch	455,026	June 30	2897	736	55	1728

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Sandt, Julius, and H. Sturm, Löbau, Germany. Apparatus for stirring and turning over malt or grain	465,209	Dec. 15	1910	484	57	1517
Sandtman, Otto, Chicago, Ill. Glazier's diamond	464,997	Dec. 15	1558	396	57	1452
Sandy, Charles W., Claysville, Ky. Attachment for saw-bucks	461,278	Oct. 13	1136	289	57	226
Sandy Hill Iron and Brass Works. (See Van Wormer, Francis M., assignor.)						
Sandys, Reginald M., New Orleans, La. Diffusion apparatus	459,654	Sept. 15	1768	445	56	1422
Saner, Basil. (See Hanse and Sauer.)						
Saner, Pins. (See Habertbiir, Benedikt, assignor.)						
Sanford, Aaron C., Thomaston, Conn. Cathedral-bell stand	453,067	May 26	2629	664	55	1098
Sanford, Albert, Oshkosh, Wis. Ice hook and pick	457,219	Aug. 4	453	118	56	618
Sanford, Byron H., et al. (See Quinlan, Alfred E., assignor.)						
Sanford, Edgar F., Merced, Cal. Thrasher	454,230	June 16	1569	413 414	55	1464
Sanford, Frank, Brooklyn, N. Y. Adjustable vehicle-seat	461,525	Oct. 20	1608	393	57	323
Sanford, George S. (See Barnard, Henry H., assignor.)						
Sanford, Joe, et al. (See Quinlan, Alfred E., assignor.)						
Sanford, Joe, Sheboygan Falls, Wis. Chair	457,567	Aug. 11	1059	271	56	739
Sanford, Phelps. (See Konigslow, Sanford, and Harvey.)						
Sanford, Phelps. (See Rokusek, Harvey, and Sanford.)						
Sanford, Phelps. (See Rokusek, Sanford, and Harvey.)						
Sangerhäuser Actien-Maschinen-Fabrik und Eisengiesserei, vormals Hornung & Rahe. (See Schulze, Ernst, assignor.)						
Sanguinetti, Luke, et al. (See Stevenson, William, assignor.)						
Sanguinetti, Percy A., Philadelphia, Pa. Window-ventilator	450,256	Apr. 14	919	227	55	183
Sano, Walter de, Corry, Pa. Tram-engine	453,092	May 26	2674	674	55	1108
Santor, George W., Springfield, Mo. Combined folding bed and dressing-case	456,965	Aug. 4	67	16	56	545
Sansoncy, Mack, assignor to L. D. Jones and L. Thiers, Kenosha, Wis. Check-loop	445,084	Jan. 20	1776	458	54	363
Sansoucy, Mack, assignor to L. D. Jones and L. Thiers, Kenosha, Wis. Winker attachment	449,497	Mar. 31	3631	914	54	1841
Sardi, Ginseppe. (See Leonardi, Zen, and Sardi.)						
Sargent, Allan C. (See Sargent, Frederick G. and A. C.)						
Sargent, Arthur G. (See Putnam and Sargent.)						
Sargent, Charles E., Chicago, Ill. Electric conductor for railways	463,760	Nov. 24	2461	643	57	1050
Sargent & Company. (See Brocksieper, Friedrich W., assignor.)						
Sargent & Company. (See Munson and Ladd, assignors.)						
Sargent & Company. (See Page, Albert A., assignor.)						
Sargent & Company. (See Paine, Ansel W., assignor.)						
Sargent & Company. (See Sargent, Joseph B., assignor.)						
Sargent & Company. (See Sargent and Page, assignors.)						
Sargent & Company. (See Sargent and Stevens, assignors.)						
Sargent & Company. (See Shaw, John H., assignor.)						
Sargent & Company. (See Sparks, William E., assignor.)						
Sargent & Company. (See Wright, Granville W., assignor.)						
Sargent, Edward R., and W. E. Stevens, assignors to Sargent & Company, New Haven, Conn. Coffin-handle	447,086	Feb. 24	2584	641	54	1040
Sargent, Frederick. (See Henderson and Sargent.)						
Sargent, Frederick, New York, N. Y. Steam-engine indicator	450,731	Apr. 21	1675	404	55	342
Sargent, Frederick G., Granitville, Mass. Machine for washing wool or similar fibers	452,501	May 19	1718	432 433	55	913
Sargent, Frederick G., Granitville, Mass. Wool-washing machine	455,059	June 30	2958	753	55	1739
Sargent, Frederick G. and A. C., Granitville, Mass. Fiber-feeding machine	450,804	Apr. 21	1794	436	55	365
Sargent, Frederick G. and A. C., Granitville, Mass. Fiber-feeding machine	451,136	Apr. 28	2312	572 573	55	473
Sargent, Henry B., and A. A. Page, assignors to Sargent & Company, New Haven, Conn. Cylinder-lock	446,192	Feb. 10	1124	275	54	734
Sargent, Joseph B., assignor to Sargent & Company, New Haven, Conn. Cylinder-lock	445,085	Jan. 20	1777	458	54	363
Sargent, Justin B., West Lebanon, N. H. Rubber	460,600	Oct. 6	84	23	57	19
Sargent, Leunel H., Jr., Mason, W. Va. Handle for angers	453,667	June 9	771	199	55	1302
Sargent, Renzo T., and B. K. Gallup, Clinton, Mass. Stove-polish	454,296	June 16	1671		55	1484
Sargent, Richard, assignor of one-half to A. Giffin, Mayfield, Canada. Load-lifter	450,089	Apr. 7	649	163	55	127
Sattelman, Paul. (See Burdon, David P., assignor.)						
Satterlee, Daniel S., and H. Kemmerer, Boonsborough, Iowa. Shed	451,775	May 5	509	125	55	675
Satterlee, Daniel S., and H. Kemmerer, Boone, Iowa. Hay-cap	463,077	Nov. 10	1358	351	57	824
Satterlee, Douglass R., New York, N. Y. Machine for forming slate-pencils	459,655	Sept. 15	1769	445	56	1423
Satterlee, John H., Fulton, N. Y. Screw-driver	452,617	May 19	1896	477	55	948
Satterthwaite, John R., Trenton, N. J. Husking-pin	444,857	Jan. 20	1417	368	54	293
Sattley, Archibald, et al. (See Sattley, Marshall, assignor.)						
Sattley, Fred L., Springfield, Ill. Vehicle-pole	458,728	Sept. 1	275	66	56	1118
Sattley, Marshall, Springfield, Ill. Cultivator	451,527	May 5	124	31	55	603
Sattley, Marshall, Springfield, Ill. Three-wheeled plow	462,454	Nov. 3	372	92	57	621
Sattley, Marshall, assignor to himself, A. Sattley, and S. E. Prather, Springfield, Ill. Harrow	447,260	Feb. 24	2899	720	54	1101
Sauber, Emil A., assignor to Hagedorn & Merz, Philadelphia, Pa. Bosom-plaiting attachment for sewing-machines	449,385	Mar. 31	3445	867	54	1804
Sauber, Emil A., assignor to Hagedorn & Merz, Philadelphia, Pa. Guide for sewing-machines	459,890	Sept. 22	2140	538	56	1502
Sauble, Peter P., Shamburg, Md. Vehicle-shaft holder	454,621	June 23	2196	566	55	1587
Sander, John M., Springfield, Ill. School furniture	451,776	May 5	510	126	55	675
Sauer, Johan G. E., Berlin, Germany. Writing and drawing table	459,312	Sept. 8	1196	290 291 294 295	56	1306
Sauer, Josef, Heddesdorf, Germany. Watering apparatus	466,187	Dec. 29	3502		57	1842
Sauerbrunn, Thomas. (See Dugan and Sauerbrunn.)						
Saulsbury, Willard, Jr. (See Willard, Charles, assignor.)						
Saum, David F. and P. A., Washington, D. C. Suspended rotary cabinet	458,071	Aug. 18	1868	487	56	902
Saum, Perry A. (See Saum, David F. and P. A.)						
Saunders, Cecil L., Cleveland, Ohio. Hoisting and conveying apparatus	456,640	July 28	2141	566	56	434
Saunders, Elisha C., Westerly, R. I. Commode	459,148	Sept. 8	945	228	56	1257
Saunders, Ellison, Austin, Tex. Metallic railway-tie	450,498	Apr. 14	1296	317	55	255
Saunders, Ellison, Austin, Tex. Metallic railway-tie	463,456	Nov. 17	1960	512	57	948
Saunders, Emmett A., Naugatuck, Conn. Rubber boot	450,698	Apr. 21	1636	393	55	335
Saunders, Lewis. (See Fowler, Walter B., assignor.)						
Saunders, Samuel L., Lynn, Mass. Folding box	450,194	Apr. 14	801	203	55	163
Saunders, Thomas H., assignor to C. J. Souther, Boston, Mass. Carrier-clamp for fire-engine hose	448,458	Mar. 17	1949	491	54	1508

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Saunier, Fernand, Nantes, France, assignor to Reiss & Brady, New York, N. Y. Can-cap- ping machine	445,477	Jan. 27	2368	{ 616 617	{ 54	488
Saubrey, George J., Columbus, Ohio. Punching and shearing machine	453,363	June 2	282	75	55	1200
Sausaman, Thomas J., Hooversburg, Ind. Swinging gate	450,749	Apr. 21	1701	411	55	348
Sausser, John M., Osnaburg, Ohio. Portable water-tank	445,413	Jan. 27	2279	591	54	471
Sautmyer, Charles A. (See Ash, John E., assignor.)						
Sautter, Charles F., Brooklyn, N. Y. Apparatus for dispensing ice-cream or other articles.	460,220	Sept. 29	2635	658	56	1603
Sautter, François L., assignor to Sautter, Harlé & Co., Paris, France. Electric-arc lamp.	456,598	July 28	2064	546	56	419
Sautter, Gaston, assignor to Sautter, Harlé & Co., Paris, France. Electric search-light.	451,604	June 23	2168	{ 560 561	{ 55	1583
Sautter, Harlé & Co. (See Sautter, François L., assignor.)						
Sautter, Harlé & Co. (See Sautter, Gaston, assignor.)						
Savage, Arthur W., Utica, N. Y. Marine torpedo	456,524	July 21	1951	514	56	388
Savage, Arthur W., Bay Ridge, N. Y. Magazine or single-loading fire-arm	460,786	Oct. 6	402	97, 98	57	79
Savage, Arthur W., assignor to T. H. Thomas, Bay Ridge, N. Y. Marine torpedo	456,278	July 21	1539	409	56	311
Savage, William C. (See Anthony, Mark, assignor.)						
Savage, William F. (See Allbee, Alexander C., assignor.)						
Savage, William W., assignor of one-half to F. Nichols, Toronto, Canada. Holder for port- able electric lamps	452,288	May 12	1357	338	55	839
Savale, Victor N., Orange, N. J. Button	461,644	Oct. 20	1794	442	57	357
Savaria, Lester N., Hopkins, Minn. Straw-stacker	459,050	Sept. 8	793	{ 191 192	{ 56	1225
Savelson, Morris. (See Silverstein and Savelson.)						
Savill, Thomas, Philadelphia, Pa. Spigot	453,668	June 9	772	199	55	1302
Sawin, Charles A., Waltham, Mass. Heating apparatus	465,210	Dec. 15	1912	{ 485 486	{ 57	1517
Sawn, Joseph E., Farmingdale, N. J. Machine for folding and mailing newspapers.	456,599	July 28	2066	{ 547 548	{ 56	419
Sawyer, Edmund H. (See Liberty, Jerry C., assignor.)						
Sawyer, Enoch and H., Rumsey, Mont. Portable box for shafting	457,843	Aug. 18	1497	390	56	832
Sawyer, George A., et al. (See Gray, James D., assignor.)						
Sawyer, Hyrum. (See Sawyer, Enoch and H.)						
Sawyer, Prince A. (See Heccock and Sawyer.)						
Sawyer, Oliver, East Templeton, Mass. Belt guide and support	445,382	Jan. 27	2228	577	54	461
Sawyer, Robert F., Chicago, Ill. Switch-board for electric-arc-light stations.	453,349	June 2	263	69, 70	55	1497
Sawyer, Stephen A. (See Chandler, George W., assignor.)						
Sawyer, Willard W., Springfield, Mass., assignor of one-half to R. A. Stewart, New York, N. Y. Hand-stamp	462,065	Oct. 27	2460	610	57	494
Sawyer, Willard W., Springfield, Mass., assignor of one-half to R. A. Stewart, New York, N. Y. Hand-stamp	462,066	Oct. 27	2462	610	57	494
Saxer, Adam E., Sioux Falls, S. D. Horse-collar fastener	461,715	Oct. 20	1908	472	57	379
Saxon, James A., Leonard, Tex. Bank-protector	448,547	Mar. 17	2078	521	54	1532
Saxon, James A., Leonard, Tex. Bank-protector	463,549	Nov. 17	2114	{ 556 557	{ 57	977
Saxton, Ebenezer B. and E. E., Coldwater, Mich. Plug	452,721	May 19	2066	520	55	982
Saxton, Elmer E. (See Saxton, Ebenezer B. and E. E.)						
Saxton, Thomas G., assignor of one-half to O. G. Vanderhoof, Lexington, Ky. Hand printing device	448,264	Mar. 17	1622	414	54	1445
Sayen, W. Henry, et al. (See Melville, George W., assignor.)						
Sayles, Thomas D. (See Fowler, Rufus B., assignor.)						
Sayre, Louis A. (See Cottrell, Herbert, assignor.)						
Sayre, Lucius E., Lawrence, Kans. Dissecting-microscope	463,168	Nov. 17	1515	394	57	862
Sayre, Samuel H., Jr., Hampton, Va. Plow	465,731	Dec. 22	2744	700	57	1687
Scales, William S., Everett, assignor of two-thirds to J. H. Clark, Quincy, and J. B. Hum- phrey, Boston, Mass. Independent electric clock	448,998	Mar. 24	2801	708	54	1677
Scales, William S., Everett, assignor of two-thirds to J. H. Clark, Quincy, and J. B. Hum- phrey, Boston, Mass. Secondary electric clock	448,999	Mar. 24	2803	708	54	1678
Scales, William S., Everett, assignor of three-fifths to J. H. Clarke, Quincy, and J. B. Humphrey, Somerville, Mass. Lawn-mower	463,078	Nov. 10	1359	{ 351 352	{ 57	824
Scanlan, David, Ashburnham, assignor of one-half to A. D. Waymoth & Co., Fitchburg, Mass. Machine for grooving chair-seats	452,922	May 26	2385	603	55	1051
Scanlan, Edward. (See Keifel, Fred. W., Jr., assignor.)						
Scanlan, Edward. (See Kuhn, Edmund, assignor.)						
Scanlan, Michael J. (See Rossney, William C., assignor.)						
Scanlan, William M., et al. (See Scott, James, assignor.)						
Scantlebury, Spurgeon C., Eastport, Me. Garment-supporter	446,079	Feb. 10	928	227	54	700
Scantlebury, William, Rockaway, N. J. Bicycle	446,175	Feb. 10	1100	270	54	730
Scarborough, Henry. (See Herron, James B., assignor.)						
Scarborough, Henry G., assignor of one-half to O. C. Scarborough, Bishopville, S. C. Cot- ton-chopper	450,797	Apr. 21	1782	433	55	363
Scarborough, James A., Silver Creek, Miss. Axle-lubricator	460,833	Oct. 6	460	116	57	92
Scarborough, James A., Wesson, Miss. Vehicle-shaft	463,923	Nov. 24	2723	706	57	1100
Scarborough, Orlando C. (See Scarborough, Henry G., assignor.)						
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire mat	452,923	May 26	2387	604	55	1051
Scates, George R., assignor of one-half to S. H. George, Knoxville, Tenn. Fire-place	453,734	June 9	873	227	55	1321
Scates, William P., Knoxville, Tenn. Steam-engine	452,432	May 19	1605	399	55	895
Scates, William P., and J. F. Woods, Knoxville, Tenn. Stone-channeler	448,928	Mar. 24	2693	679	54	1657
Scattergood, Henry W., Philadelphia, Pa. Time-record book	461,098	Oct. 13	849	219	57	171
Scattergood, Henry W., Philadelphia, Pa. Temporary binder	461,099	Oct. 13	850	219	57	171
Scetters, George N., Milwaukee, Wis. Brake-beam	448,929	Mar. 24	2694	679	54	1657
Scetters, George N., assignor to Milwaukee Brass and Copper Works, Milwaukee, Wis. Car-axle journal-bearing	447,527	Mar. 3	434	106	54	1199
Schaap, Alexander K. (See Ostergren and Schaap.)						
Schaap, Alexander K., Richmond, Va. Bicycle-spoke-nipple wrench	449,000	Mar. 24	2805	709	54	1678
Schade, Edmund A., assignor to Stanley Rule and Level Company, New Britain, Conn. Floor-clamp	466,142	Dec. 29	3438	880	57	1830
Schade, John. (See Case and Schade.)						
Schade, John, assignor to Hopkins & Dickinson Manufacturing Company, Brooklyn, N. Y. Latch	446,841	Feb. 17	2162	537	54	955
Schaefer, Adam, Hamburg, Germany. Spinal corset	453,328	June 2	230	61	55	1191
Schaefer, Charles W., Cleveland, Ohio. Apparatus for shrinking cloth	448,459	Mar. 17	1950	491	54	1508
Schaefer, Charles W., Cleveland, Ohio. Cloth-shrinking machine	459,021	Sept. 8	744	190	56	1218
Schaefer, John C., New York, N. Y. Device for connecting casks and other vessels	458,072	Aug. 18	1870	487	56	903
Schaeffer, Barnett. (See Schaeffer, Isidor A. and B.)						
Schaeffer, George B., Chicago, Ill. Pipe or nut wrench	464,899	Dec. 8	1366	343	57	1405

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Schaeffer, Henry, Ridgway, Colo. Car-coupling	462,589	Nov. 3	582	143	57	663
Schaeffer, Isidor A. and B., assignors to R. Schaeffer, New York, N. Y. Machine for marking patterns	462,331	Nov. 3	177	45	57	584
Schaeffer, Lester A., Dayton, Ohio. Lawn-sweeper	463,236	Nov. 17	1614	421	57	881
Schaeffer, Rosa. (See Schaeffer, Isidor A. and B., assignors.)						
Schaefflihaum, Robert, Manchester, England. Cotton-opener, &c	447,365	Mar. 3	143	39	54	1145
Schafer, May S., Chicago, Ill. Multiplex dress-chart	457,591	Aug. 11	1094	{ 279 280 }	56	746
Schaffer, Stephen J. (See Semmel, Balliet, and Schaffer.)						
Schafstall, Frank, Sumner, Iowa. Flour-receptacle	458,192	Aug. 25	2054	532	56	945
Schaibly, Theobald E. J., Brooklyn, N. Y. Grip-testing machine	459,022	Sept. 8	746	{ 181 182 }	56	1218
Schalitz, Carl L., San Francisco, Cal. Still	460,365	Sept. 29	2869	716	56	1647
Schalk, Emil, Piermont, N. Y. Cable-grip	449,139	Mar. 31	3022	764	54	1728
Schapiro, Morris, Philadelphia, Pa. Shirt	466,108	Dec. 29	3376	862	57	1818
Scharar, Christian H., Scranton, Pa. Device for creating draft	456,435	July 21	1808	478	56	361
Scharf, Gregory H., Toledo, Ohio. Cuff-holder	458,795	Sept. 1	369	89	56	1136
Scharf, Samuel R., Washington, D. C. Concrete-mixer	447,366	Mar. 3	144	39, 40	54	1145
Scharr, Jonathan, Philadelphia, Pa. Detergent	444,135	Jan. 6	258		54	53
Schatz, Adam E., New York, N. Y. Telephone sound-transmitter	449,180	Mar. 31	3086	778	54	1740
Schatz, Joseph, Newport, Ky. Car-coupling	447,977	Mar. 10	1166	295	54	1345
Schaub, Louis, Wheeling, W. Va. Glassware	452,722	May 19	2066	520	55	982
Schauer, William A., Canton, Ohio. Vapor-burner	454,119	June 16	1407	367	55	1432
Schaum, Otto W., Philadelphia, Pa. Machine for punching holes in Jacquard cards	445,340	Jan. 27	2175	563	54	451
Schaum, Otto W., Philadelphia, Pa. Friction let-off device for looms	452,021	May 12	896	230	55	755
Schaum, Otto W., Philadelphia, Pa. Narrow-ware loom	460,662	Oct. 6	205	53	57	42
Schaum, Otto W., assignor to Schaum & Uhlinger, Philadelphia, Pa. Spool-holding bracket for looms	445,514	Jan. 27	2424	632	54	498
Schaum & Uhlinger. (See Lutton, William J., assignor.)						
Schaum & Uhlinger. (See Schaum, Otto W., assignor.)						
Schedler, Robert W., Brooklyn, assignor to New York Tartar Company, New York, N. Y. Manufacture of tartaric acid	455,768	July 14	766	{ 199 200 }	56	156
Scheewe, Rudolph, Hamburg, Germany. Shears	453,669	June 9	773		55	1302
Schefbauer, Rupert. (See Wirsching and Schefbauer.)						
Schefbauer, Rupert, Paterson, N. J., assignor to Universal Arc Lamp Company, of New York. Electric-arc lamp	451,309	Apr. 28	2602	642	55	529
Scheffer, Georg. (See Wytenbach, Christian, assignor.)						
Scheffler, Theodore, assignor of one-half to R. Atherton, Paterson, N. J. Power-transmitting device	448,575	Mar. 17	2122	{ 531 532 }	54	1541
Scheffold, Frank, New Albany, Ind. Spirit-level	453,329	June 2	230	61	55	1191
Scheffold, Frank, assignor to W. C. De Pauw Company, New Albany, Ind. Machine for polishing glass	453,566	June 2	604	154	55	1262
Scheibel, Theobald, Santa Rosa, Cal. Gate	461,986	Oct. 27	2348	582	57	472
Scheid, Max, Wadgassen, Germany. Copying-press	464,392	Dec. 1	600	148	57	1248
Scheid, Max, Wadgassen, Germany. Measuring-spoon	464,393	Dec. 1	601	148	57	1248
Scheidemann, Ferdinand L. (See Bender and Scheidemann.)						
Scheidig, Frederick, New York, N. Y. Magic lantern	449,386	Mar. 31	3447	{ 867 868 }	54	1804
Scheler, Georg, New York, N. Y. Toy animal	450,195	Apr. 14	803	203	55	163
Schell, Duncan M., Castleton, Vt. Thill-tug	446,694	Feb. 17	1933	482	51	906
Schell, John W., Philadelphia, Pa. Means for recovering lost or stolen watches	450,427	Apr. 14	1194	291	53	234
Schelleng, Charles S., Freeport, Ill. Hanger for bodies of buggies	464,320	Dec. 1	497	119	57	1229
Scheller, Heinrich, Christiania, Norway. Spewing-box for use on board ships	445,086	Jan. 20	1778	458	54	363
Scheller, John F., City Island, N. Y. Radiimeter	459,656	Sept. 15	1772	446	56	1423
Schenck, Carl, Darmstadt, Germany. Automatic balance	457,733	Aug. 11	1315	{ 311 342 343 }	56	790
Schenck, Murray, Middletown, assignor to Chatfield & Woods, Cincinnati, Ohio. Paper-bag machinery	465,211	Dec. 15	1914	486	57	1518
Schenck, Robert C., Dayton, Ohio. Head-chair for stub-switches for railways	463,430	Nov. 17	1931	504	57	941
Schenck, William T., Maroa, Ill. Buckle	458,239	Aug. 25	2135	523	56	960
Schenck, William T. Y., San Francisco, Cal. Hose-reel	446,745	Feb. 17	2012	502	54	923
Schenuit, Alphonse W., et al. (See Gutte, William F., assignor.)						
Schenuit, Henry F., et al. (See Gutte, William F., assignor.)						
Scherbner, Paul. (See Bayer and Scherbner.)						
Scherer, Maria C., New York, N. Y. Burial apparatus	451,173	Apr. 28	2368	{ 588 589 }	55	485
Scheuber, August W., Brooklyn, assignor to S. Zinn, New York, N. Y. Frame for pocket-books or other articles	466,262	Dec. 29	3618	926	57	1864
Scheuer, Simon, New York, N. Y. Buckle	448,203	Mar. 24	2507	628	54	1621
Schickler, Philipp, Aurora, Ill. Ash-arrester	462,067	Oct. 27	2463	610	57	494
Schied, Charles A., Rochester, N. Y. Flour-bolt	446,155	Feb. 10	1060	260	54	724
Schiding, Andrew W., Turner's Falls, Mass. Velocipede	449,498	Mar. 31	3632	914	54	1842
Schiefer, Fred W., Buffalo, N. Y. Watchman's electric time-recorder	461,279	Oct. 13	1137	290	57	227
Schieren, Charles A., Brooklyn, N. Y. Belting	455,852	July 14	900	236	56	181
Schierholz, August H., assignor to Risdon Iron Works, San Francisco, Cal. Ore-crusher	459,657	Sept. 15	1774	446	56	1423
Schiermann, William. (See Inglis and Schiermann.)						
Schiff, Bernhart, and L. Mayer, New York, N. Y. Watch-case pendant	447,908	Mar. 10	1050	262	54	1324
Schifferly, Conrad, Fort Wayne, Ind. Bake-pan	448,548	Mar. 17	2079	521	54	1533
Schilling, August, Oakland, Cal. Box-lining	461,451	Oct. 20	1428	360	57	290
Schilling, Charles R. (See Schraubstadter and Schilling.)						
Schilling, Ernst, Leipsic, Germany. Mechanical musical instrument	450,257	Apr. 14	919	{ 227 228 }	55	183
Schilling, George W., Philadelphia, Pa. Feed-water regulator	465,212	Dec. 15	1916	486	57	1518
Schillinger, Frederick, Toledo, Ohio. Frame for suspending buckets	445,719	Feb. 3	334	88	54	578
Schillinger, John J., New York, N. Y. Building	453,510	June 2	525	135	55	1247
Schimansky, Hermann, and L. Passelt, Berlin, Germany, assignors to Morwitz & Co., Philadelphia, Pa. Frame for holding stereotype-molds	446,695	Feb. 17	1934	482	54	906
Schimmel, Gustav R., Detroit, Mich. Nursing-bottle for sterilizing milk	453,511	June 2	526	135	55	1247
Schimper & Co., William. (See Oldenbusch, Ernst, assignor.)						
Schimper, Rudolph J., Jersey City, N. J., assignor, by mesne assignments, to United States Fuel Company, of New Jersey. Artificial fuel	447,138	Feb. 24	2698		54	1060
Schindler, Andrew J., Chicago, Ill. Steam-engine governor	463,873	Nov. 24	2641	688	57	1084

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Schindler, Joseph, Uittwa, No. 7, near Carlsbad, Austria-Hungary. Velocipede.....	447,478	Mar. 3	356	88	54	1185
Schirm, Johann W. C. C., Berlin, Germany. Producing intense light by magnesium or other glowing materials.....	446,891	Feb. 24	2263	563	54	981
Schirmer, Edward, Cleveland, Ohio. Syringe.....	446,125	Feb. 10	1006	248	54	715
Schirmer, Valentine, New York, N. Y. Window.....	460,449	Sept. 29	2974	744	56	1667
Schlager, Walter L., and J. C. Dommermuth, Avoca, Pa. Car-coupling.....	453,670	June 9	774	200	55	1302
Schlatter, Charles, Hoboken, N. J. Stop-watch.....	448,549	Mar. 17	2079	522	54	1533
Schlee, Herman H., W. F. Bach, and T. Mooney, Chicago, Ill. Bridge-gate.....	463,237	Nov. 17	1615	{ 421 422 }	57	881
Schleicher, William A., Cleveland, Ohio. Whiffletree-coupling.....	455,119	June 30	3063	778	55	1760
Schlenker, Ivan, and T. Puskas, Buda-Pesth, Austria-Hungary. Submarine cartridge.....	450,774	Apr. 21	1743	422	55	356
Schlesinger, Bernhard. (See Goldschmidt, Gustav, assignor.)						
Schlesinger, Harry A., assignor to T. Christy, London, England. Preparing water-proof material.....	446,294	Feb. 10	1318	.....	54	773
Schlesinger, Leo. (See Cossin, Francis, assignor.)						
Schlesinger, Louis, assignor of one-half to C. H. Gurney, Chicago, Ill. Wrench.....	460,539	Sept. 29	3143	785	56	1707
Schlesinger, William M., assignor to C. F. Van Horn, Philadelphia, Pa. Electric rock-drill.....	449,090	Mar. 24	2937	{ 744 745 }	54	1704
Schloesing, Henri, and B. Dégremont, Marseilles, France. Liquid-vending apparatus.....	462,778	Nov. 10	881	{ 231 232 }	57	729
Schloss, Joseph W., New York, N. Y. Sample-card.....	463,996	Nov. 24	2841	736	57	1123
Schlosser, John W. (See Wheatley and Schlosser.)						
Schlosser, John W., Washington, D. C. Trolley for electric railways.....	464,780	Dec. 8	1199	297	57	1372
Schlusner, Frederic, Brooklyn, N. Y. Combined speaking-tube and earphone.....	453,919	June 9	1128	295	55	1371
Schlutter, John, Baltimore, Md. Key-holder.....	455,060	June 30	2960	753	55	1740
Schmachtenberg, William, New York, N. Y. Pocket-knife.....	449,499	Mar. 31	3633	{ 914 915 }	54	1842
Schmadel, John, Cincinnati, Ohio. Trunk.....	450,533	Apr. 14	1338	329	55	264
Schmalhausen, Lewis R., Charleston, Ill. Automatic sash-lock.....	452,723	May 19	2067	520	55	982
Schmaltz, Friedrich, Offenbach-on-the-Main, Germany. Saw-sharpening machine.....	453,431	June 2	409	{ 106 107 }	55	1224
Schmalzrid, Christian, near Donaldsonville, La. Fertilizer-distributor.....	453,799	June 9	978	254	55	1341
Schmalzrid, Christian, near Donaldsonville, La. Fertilizer-distributor.....	450,223	Sept. 8	1065	239	56	1279
Schmalzrid, Christian, near Donaldsonville, La. Fertilizer-distributor.....	459,240	Sept. 8	1089	266	56	1284
Schmalzrid, Christian, Donaldsonville, La. Dumping-car.....	460,450	Sept. 29	2976	744	56	1668
Schmedling, Frank, assignor of one-half to W. Rothhoff, Rankin Station, Pa. Steam-gage cock.....	460,075	Sept. 22	2410	603	56	1552
Schmehrer, Frank J., Utica, N. Y. Tobacco-pipe attachment.....	456,856	July 28	2511	658	56	501
Schmickle, Mathäus. (See Kurz, Christoph F., assignor.)						
Schmid, Albert, Zurich, Switzerland. Air-moistening apparatus.....	462,102	Oct. 27	2519	625	57	505
Schmid, Jakob, assignor to Society of Chemical Industry, Basle, Switzerland. Black dye.....	449,629	Mar. 31	3854	.....	54	1882
Schmid, Jakob, assignor to Society of Chemical Industry, Basle, Switzerland. Orange-yellow dye.....	452,197	May 12	1221	.....	55	812
Schmid, Jakob, assignor to Society of Chemical Industry, Basle, Switzerland. Betadelta-amidonaphthol.....	455,442	July 7	228	.....	56	46
Schmid, John, Olney, Ill. Clothes-pin.....	446,648	Feb. 17	1865	463	54	894
Schmidt, Adam. (See Genese and Schmidt.)						
Schmidt, Albert. (See Sulzer and Schmidt.)						
Schmidt, August, New York, N. Y. Window-frame.....	462,998	Nov. 10	1234	321	57	799
Schmidt, Charles, Louisville, Ky. Boot and shoe cleaning device.....	461,512	Oct. 20	1590	388	57	320
Schmidt, Charles, and A. R. Ledet, Birmingham, Ala. Tonic remedy.....	461,716	Oct. 20	1909	.....	57	379
Schmidt, Frank F., Kansas City, Mo. Railway-switch.....	451,076	Apr. 28	2216	548	55	454
Schmidt, Frederick T., Bradford, England. Apparatus for consuming smoke.....	417,367	Mar. 3	149	40, 41	51	1146
Schmidt, Frederick M., Brooklyn, N. Y. Self-winding clock.....	452,392	May 19	1535	381	55	881
Schmidt, Friedrich C., Berlin, assignor to Mühlenbauanstalt und Maschinenfabrik, vormals Gebrüder Seck, Dresden, Germany. Automatic scale.....	455,120	June 30	3064	{ 779 780 }	55	1760
Schmidt, George B., New York, N. Y. Feed-bag attachment.....	457,320	Aug. 4	454	118	56	618
Schmidt, Henry, A. Merunka, and C. Werner, New York, N. Y. Machine for preparing filler-tobacco for cigar-bunches.....	459,416	Sept. 15	1377	{ 345 346 }	56	1350
Schmidt, Henry, A. Merunka, and C. J. Werner, New York, N. Y. Cigar-bunching machine.....	465,499	Dec. 22	2322	{ 609 610 }	57	1617
Schmidt, John B. (See Hines, August H., assignor.)						
Schmidt, John G., Philadelphia, Pa. Slicing, chipping, and grinding machine.....	465,891	Dec. 29	3015	771	57	1742
Schmidt, Philipp, La Crosse, Wis. Elevator.....	466,188	Dec. 29	3503	895	57	1843
Schmidt, Louis M. (See Lemp and Schmidt.)						
Schmidt, Robert E., assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Alizarine derivative.....	446,892	Feb. 24	2265	.....	54	981
Schmidt, Robert E., assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Alizarine derivative.....	446,893	Feb. 24	2265	.....	54	981
Schmidt, Wilhelm R., St. Louis, Mo. Box-fastener.....	456,436	July 21	1810	479	56	361
Schmidt, William, assignor to Arlington Manufacturing Company, Arlington, N. J. Polishing sheets of pyroxyline material.....	465,784	Dec. 22	2830	725	57	1704
Schmidt, William O. (See Petersen, Peter F., assignor.)						
Schmisser, Charles, Belleville, Ill. Wash-boiler.....	450,845	Apr. 21	1870	457	55	378
Schmith, Henry. (See Loescher and Schmith.)						
Schmitt & Co., F. J. (See Vaughn, Charles A., assignor.)						
Schmitt, Edward D. (See Babcock and Schmitt.)						
Schmitt, Edward D. (See Crowell, Helen C., assignor.)						
Schmitt, Edward D., Cuyaboga Falls, Ohio. Clutch.....	464,481	Dec. 1	726	178	57	1273
Schmitt, Edward D., Cuyaboga Falls, Ohio, assignor to Falls Rivet and Machine Company, of Ohio. Friction-clutch.....	465,213	Dec. 15	1917	486	57	1518
Schmitz, Ernst, assignor to E. Melchior, Chicago, Ill. Ratchet-drill.....	452,985	May 26	2495	622	55	1073
Schmitz, Franz, San Francisco, Cal. Door-manipulator.....	452,084	May 12	1029	{ 260 261 }	55	776
Schmitz, Henry, Wymore, Nebr. Bridle.....	453,943	June 9	1160	303	55	1377
Schmitz, John H., Clinton, Iowa. Horse-collar fastener.....	458,288	Aug. 25	2230	545	56	977
Schmitz, Theodore H., Philadelphia, Pa. Artificial tooth.....	451,297	June 16	1671	438	55	1484
Schnarrenberger, Jacob H., Greenfield, Ohio. Cash indicator and register.....	465,732	Dec. 22	2746	701	57	1688
Schneebeli, Gustav A. (See Townsend and Schneebeli.)						
Schneider, August, Dresden-Neustadt, Germany. Combined cane and camp-stool.....	444,621	Jan. 13	1000	260	54	207
Schneider, Bruno, Buchholz, Germany. Music-leaf turner.....	448,265	Mar. 17	1623	414	54	1445
Schneider, Charles, Philadelphia, Pa., assignor to Cohanzie Stained Paper Company, of New Jersey. Device for color-stripping paper, &c.....	454,773	June 23	2419	621	55	1632
Schneider, Christian, and B. Maschio, Boston, Mass. Fire-escape.....	456,003	July 14	1127	296	56	222

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Schneider & Co. (See Schneider, Henri, assignor.)						
Schneider, Daniel J., St. Louis, Mo. Picket fence	460,221	Sept. 29	2637	658	56	1603
Schneider, Fred M. L. (See Troeger and Schneider.)						
Schneider, Friedrich, New York, N. Y. Rotary valve	449,181	Mar. 31	3087	778	54	1740
Schneider, Heinrich, Oberhausen, Germany. Note-plate for head-coverings	448,266	Mar. 17	1624	414	54	1445
Schneider, Henri, Paris, France. Breech-loading ordnance	449,335	Mar. 31	3351	845	54	1787
Schneider, Henri, assignor to Schneider & Co., Paris, France. Breech-closing mechanism for ordnance	464,678	Dec. 8	1032	258 259	57	1341
Schneider, Ignatius C., Sleepy Eye, Minn. Chimney-cowl	463,202	Nov. 17	1566	408	57	871
Schneider, John, Cleveland, Ohio. Apparatus for extracting hops	450,534	Apr. 14	1339	329	55	264
Schneider, John B., assignor to H. Haller, New Orleans, La. Ear for vessels	465,804	Dec. 22	2857	731	57	1709
Schneider, John G., assignor of one-half to F. Riedle, Chicago, Ill. Street-car	445,941	Feb. 3	696	169 170	54	649
Schneider, Joseph. (See Weber, Charles E., assignor.)						
Schneider, Robert, Biela, near Bielitz, Austria-Hungary, assignor to A. Hoehne, New York, N. Y. Self-acting mule	462,167	Oct. 27	2619	653 654	57	524
Schneider, William E., Washington, D. C., assignor to M. Earle, trustee, Philadelphia, Pa. Shutter for photographic apparatus	464,998	Dec. 15	1559	396	57	1452
Schneider, William E., Washington, D. C., assignor to M. Earle, trustee, Philadelphia, Pa. Tripod	464,999	Dec. 15	1561	397	57	1453
Schnell, Friedrich, Sr., Fort Madison, Iowa. Fire-escape	446,295	Feb. 10	1319	321	54	773
Schneller, George O., Ansonia, Conn. Machine for setting lacing-studs	459,207	Sept. 8	1039	253 254	56	1274
Schneller, George O., Ansonia, Conn. Mechanical movement	459,208	Sept. 8	1045	254	56	1275
Schnepf, Benard, Louisville, Ky. Leather-hanging frame	457,014	Aug. 4	126	31	56	557
Schneidewend & Lee Company. (See Bechman, Henry F., assignor.)						
Schnitzger, Carl C., Berlin, Germany. Painting in oil colors	448,267	Mar. 17	1625		54	1446
Schoch, Martin L., New Berlin, Pa. Line or rein grip	458,344	Aug. 25	2322	567	56	995
Schoch, Martin L., New Berlin, Pa. Mouth-piece for tobacco-pipes or cigar-holders	459,730	Sept. 15	1883	474	56	1445
Schoch, Martin L., New Berlin, Pa. Spoon	461,623	Oct. 20	1764	434	57	351
Schock, Gustav, New York, N. Y. Barrel-washer	466,084	Dec. 29	3339	853	57	1811
Schoen, Charles T., Philadelphia, Pa. Pressed-steel rail-joint	446,017	Feb. 10	825	199	54	681
Schoen, Charles T., Pittsburg, Pa. Center bearing-plate for cars	446,296	Feb. 10	1320	322	54	773
Schoen, Charles T., Allegheny, Pa. Pressed-steel brake-beam and shoe-head for railway-cars	464,781	Dec. 8	1200	298	57	1372
Schoen, Charles T., and L. W. Newton, Allegheny, assignors to Schoen Manufacturing Company, Philadelphia, Pa. Brake-beam and shoe-head	450,760	Apr. 21	1715	415	55	351
Schoen Manufacturing Company. (See Schoen and Newton, assignors.)						
Schoen, Paul, Hoboken, N. J. Button-sewing attachment for sewing-machines	464,042	Dec. 1	51	14, 15	57	1147
Schoenfelder, August, Burton, Tex. Middle breaker	455,413	July 7	190	49	56	40
Schoettl, Josef, Brooklyn, N. Y., assignor to J. Reynders, Hoboken, N. J., and C. Reynders, Yonkers, N. Y. Atomizer	451,643	May 5	307	74	55	637
Schoff, Frederic, Philadelphia, Pa. Machine for cutting holes in plates	450,428	Apr. 14	1195	292	55	235
Schofield, Albert B. (See Pfeighar, Frank P., assignor.)						
Schofield, Albert B., New York, N. Y., assignor of one-half to J. C. Beach, Bloomfield, N. J. Nut-lock	451,174	Apr. 28	2369	529	55	485
Schofield, Andrew B., assignor of two-fifths to J. Covert and A. M. Dewey, Washington, D. C. Plate-printing press	465,000	Dec. 15	1562	397	57	1453
Schofield, Edmond L., et al. (See Skinner, Albert C., assignor.)						
Schofield, Frederick F., Oscoda, Mich. Wrench	455,821	July 14	865	226	56	174
Schofield, James D., Rodgers, Tex., assignor to Ohio Cultivator Company, Bellevue, Ohio. Cotton-planter	445,734	Feb. 3	360	93	54	583
Schofield, James D., Rodgers, Tex., assignor to Ohio Cultivator Company, Bellevue, Ohio. Corn-planter	446,118	Feb. 10	990	244	54	712
Schofield, John D., Philadelphia, Pa. Roll for napping or other machines	455,729	July 7	703	185	56	135
Schofield, John M. (See Stackpole, Charles F., assignor.)						
Schofield, Richard, assignor of seven-twelfths to J. Penman, Paris, Canada. Cloth-cutting machine	451,335	Apr. 28	2642	653	55	537
Schofield, Richard, Paris, and A. F. Robb, Galton, Canada. Drying-form	465,733	Dec. 22	2748	701	57	1688
Schofield, Joseph J. (See Peirce, William C., assignor.)						
Schofield, Joseph J. (See Scholfield, Socrates, assignor.)						
Schofield, Joseph J., Providence, R. I. Machine for opening out the curled edges of textile webs	463,550	Nov. 17	2116	557	57	977
Schofield, Joseph J., Providence, R. I. Mechanism for guiding the edges of textile webs	463,551	Nov. 17	2117	557 558	57	977
Schofield, Joseph J., Providence, R. I. Cloth-guiding machine	463,552	Nov. 17	2118	558	57	977
Schofield, Joseph J., Providence, R. I. Cloth-guiding attachment for tentering-machines	463,553	Nov. 17	2119	559	57	978
Schofield, Joseph J., Providence, R. I. Cotton-speeder gear	466,263	Dec. 29	3618	926	57	1864
Schofield, Socrates, assignor to J. J. Schofield, Providence, R. I. Mechanism for guiding the edges of textile webs	463,584	Nov. 17	2172	574	57	988
Schollhorn, August L., assignor to W. Schollhorn & Co., New Haven, Conn. Pruning implement	450,342	Apr. 14	1059	260	55	209
Schollhorn & Co., William. (See Schollhorn, August L., assignor.)						
Scholte, Johannes T., Amsterdam, Netherlands. Lighting apparatus	450,429	Apr. 14	1197	292	55	235
Scholvien, Ludwig. (See Lüttke and Scholvien.)						
Scholvien, Ludwig, Berlin, Germany. Making dimethylphenylpyrazolone	460,186	Sept. 29	2583		56	1503
Scholz, Samuel G., Billings, Mo. Pocket-knife	458,664	Sept. 1	184	43	56	1100
Scholz, Samuel G., Billings, Mo. Attachment for straw-stackers	461,899	Oct. 27	2207	544	57	446
Schoofield, Elijah J. (See Schoofield, William M. and E. J.)						
Schoofield, William M. and E. J., Pocomoke City, Md. Basket	453,213	June 2	50	14	55	1158
Schoonmaker, John W., Brooklyn, N. Y. Comminuted compound paste	451,077	Apr. 28	2217	548	55	454
Schoonover, James S., assignor to C. F. Whiteher, Buffalo, N. Y. Fan-blower	447,909	Mar. 10	1052	263	54	1324
Schorah, Joseph E., Wilmington, Del. Glass front for vehicles	453,432	June 2	411	107	55	1224
Schorr, John W., et al. (See Trendley, John, assignor.)						
Schorr, Robert, Württemberg, Germany. Producing colored impressions	446,004	Feb. 10	811		54	678
Schott, Gustavus A. J., Bradford, England. Mechanism for cutting the floats of welf pile fabrics	464,734	Dec. 8	1129	280	57	1359
Schott, William, New Haven, Conn. Cigar-box opener	458,256	Aug. 25	2163	530	56	965
Schrabetz, Emil, Vienna, Austria-Hungary. Cash indicating and recording apparatus	452,170	May 12	1181	299	55	804
Schrader, John C., Dover, N. J., assignor to Repauno Chemical Company, Wilmington, Del., and Atlantic Dynamite Company, San Francisco, Cal. Apparatus for making dope for explosives	450,591	Apr. 14	1418	349 350	55	279
Schrader, Wolfgang, assignor to C. L. P. Fleck Söhne, Berlin, Germany. Force-accumulator	456,525	July 21	1953	514	56	389

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Schrage, William, Sheboygan, Mich. Tilting chair	446,080	Feb. 10	929	227	54	700
Schram, John S., Dayton Ohio. Collar-stuffing machine	448,268	Mar. 17	1626	415	54	1446
Schranz, Wilhelm, Laurenburg, Germany. Crushing-machine	461,050	Oct. 13	783	200	57	158
Schraubstadter, Carl, Jr., and C. R. Schilling, St. Louis, Mo.; said Schilling assignor to said Schraubstadter. Engraving-machine	454,774	June 23	2419	621	55	1632
Schraubstadter, Carl, Jr., and C. R. Schilling, St. Louis, Mo.; said Schilling assignor to said Schraubstadter. Lead-cutter	460,035	Sept. 22	2340	{ 586 587 }	{ 56 57 }	1540
Schraubstadter, Carl, Jr., and C. R. Schilling, St. Louis, Mo.; said Schilling assignor to said Schraubstadter. Shooting board and plane	463,924	Nov. 24	2724	707	57	1100
Schraubstadter, Carl, Jr., and C. R. Schilling, St. Louis, Mo.; said Schilling assignor to said Schraubstadter. Casting-box	465,541	Dec. 22	2466	{ 628 629 }	{ 57 58 }	1633
Schreckengost, Samuel, Meadville, Pa., assignor of one-fourth to C. F. Moore, Huntersville, W. Va. Harrow	449,592	Mar. 31	3774	947	54	1867
Schreiber, Curt, and H. Knutsen, Broken Hill, New South Wales. Extracting antimony from ores	450,023	Sept. 8	750	.....	56	1219
Schreiber, Frederick, assignor of one-half to C. L. Gaylord, Bridgeport, Conn. A wining	449,387	Mar. 31	3449	868	54	1805
Schreiber, Philip J., Dayton, Ohio. Fountain-feed for moistening and sealing devices	446,881	Feb. 10	930	227	54	701
Schreiber, Philip J., assignor of one-half to D. Gross, Dayton, Ohio. Tag-fastener	444,371	Jan. 6	608	156	54	120
Schrepper, Conrad, Paterson, N. J. Mechanism for driving spinning-spindles	465,001	Dec. 15	1563	{ 397 398 }	{ 57 58 }	1453
Schreuder, Jens G. (See Westinghouse and Schreuder.)						
Schrib, Juni, McGregor, Tex. Washing-machine	446,144	Feb. 10	1042	256	54	720
Schroder, Edwin J. (See Carr and Schroder.)						
Schroeder, Conrad, Milwaukee, Wis. Cap for bottle-stoppers	451,137	Apr. 28	2313	573	55	474
Schroeder, George G. (See Dorsey, Vernon M., assignor.)						
Schroeder, George G., et al. (See Krieger, John G., assignor.)	447,585	Mar. 3	517	126	54	1214
Schroeder, George G., Washington, D. C. Liquid-purifier	447,978	Mar. 10	1168	{ 296 297 }	{ 54 55 }	1346
Schroeder, Henry. (See Ayres and Schroeder.)						
Schroeder, Richard D., San Francisco, Cal. Machine for shaking liquids	457,938	Aug. 18	1670	437	56	863
Schroeder, Robert. (See Bentel, Jacob, assignor.)						
Schroeder, William, assignor to Chicago Railway Appliance Company, Chicago, Ill. Car-coupling	456,526	July 21	1954	514	56	389
Schrom, Frank E. (See Strait, Andrew V., assignor.)						
Schroyer, Charles A. (See Thompson and Schroyer.)						
Schroyer, Charles A., Chicago, Ill. Grain-car door	450,430	Apr. 14	1198	{ 292 293 }	{ 55 56 }	235
Schroyer, Charles A., and E. B. Thompson, Chicago, Ill. Device for relieving the tension of car-buffers	449,388	Mar. 31	3450	{ 868 869 }	{ 54 55 }	1805
Schroyer, Charles A., and E. B. Thompson, Chicago, Ill. Device for relieving the tension of draw-bars	449,828	Apr. 7	284	75	55	56
Schryver, Charles, Rich Hill, Mo. Corn-harvester	452,805	May 26	2197	{ 551 552 }	{ 55 56 }	1016
Schuckers, Jacobs W., Newark, N. J., assignor to Clyde Type Writer Company, of West Virginia. Type-writing machine. (Reissue)	11,156	Apr. 11	1446	355	55	284
Schubert, George, Walnut Springs, Tex. Grain-conveyer for binders, &c	446,473	Feb. 17	1599	392	54	842
Schuetz, Fred. J. J., Saginaw, Mich. Divider for mowing-machines	446,894	Feb. 24	2266	563	54	981
Schuetz, George, Jr. (See Schuetz, John T. and G., Jr.)						
Schuetz, John. (See Buene and Schuetz.)						
Schuetz, John T. and G., Jr., Belleville, Ill. Vehicle-brake	460,890	Oct. 6	552	139	57	108
Schulte, John H., Jersey City, N. J., assignor to American Writing Machine Company, New York, N. Y. Type-writing machine	450,592	Apr. 14	1422	350	55	280
Schultz, Emil F., Cleveland, Ohio. Fastener	451,845	May 5	602	150	55	694
Schultz, Gustav, New York, N. Y. Shoe	449,400	Mar. 31	3635	915	54	1842
Schultz, Gustav, assignor to Actien-Gesellschaft für Anilin Fabrikation, Berlin, Germany. Blue azo dye	461,086	Oct. 13	834	.....	57	168
Schultz, Gustav, assignor to Actien-Gesellschaft für Anilin Fabrikation, Berlin, Germany. Blue azo dye	462,824	Nov. 10	959	.....	57	746
Schultz, Harry C., Philadelphia, Pa. Washing-machine	464,334	Dec. 1	518	126	57	1233
Schultz, Louis. (See Koch, Matthias, assignor.)						
Schultz, Louis, assignor to Excelsior Quilting Company, New York, N. Y. Quilting-machine	456,734	July 28	2296	{ 607 608 }	{ 56 57 }	463
Schultz, Louis, assignor to Excelsior Quilting Company, New York, N. Y. Quilting-machine	456,735	July 28	2300	609	56	464
Schultz, Louis, assignor to Excelsior Quilting Company, New York, N. Y. Quilting-machine	456,736	July 28	2302	{ 609 610 }	{ 56 57 }	464
Schultz, Louis, assignor to Excelsior Quilting Company, New York, N. Y. Quilting-machine	456,737	July 28	2305	610	56	465
Schultz, Louis, assignor to Excelsior Quilting Company, New York, N. Y. Quilting-machine	456,738	July 28	2309	611	56	466
Schultz, Louis, assignor to Excelsior Quilting Company, New York, N. Y. Machine for cutting threads	456,739	July 28	2312	{ 611 612 }	{ 56 57 }	466
Schultz, Louis, assignor to Excelsior Quilting Company, New York, N. Y. Quilting-machine	456,740	July 28	2315	612	56	466
Schultz, Louis, and T. A. Weber, New York, N. Y.; said Weber assignor to said Schultz. Quilting-machine	447,794	Mar. 10	859	{ 213 214 }	{ 54 55 }	1287
Schultze, Gustav F. W., San Francisco, Cal. Document-file	451,310	Apr. 28	2604	642	55	529
Schulz, Ernst L. C. (See Liesenber, Carl, assignor.)						
Schulz, Heinrich, assignor of one-half to E. Stahlecker, Berlin, Germany. Curry-comb	455,548	July 7	402	105	56	78
Schulz, Otto, Brieg, Germany. Continuous-evaporating apparatus	463,338	Nov. 17	1780	{ 466 467 }	{ 57 58 }	911
Schulz, Richard, Berlin, Germany. Brush	450,042	Apr. 7	580	144	55	112
Schulz, William F., et al. (See Franck, August H., assignor.)						
Schulze-Berge, Franz G. A., Brooklyn, N. Y. Vacuum-pump	452,852	May 26	2268	569	55	1029
Schulze-Berge, Hermann, Rochester, Pa. Apparatus for grinding or polishing glassware	447,700	Mar. 3	676	169	54	1246
Schulze-Berge, Hermann, Rochester, Pa. Glass-melting furnace	447,795	Mar. 10	864	215	54	1288
Schulze, Edward, Plauen, Saxony, Germany. Tooth-cleaner	463,309	Nov. 17	1733	453	57	904
Schulze, Ernst, assignor of one-half to Sangerhäuser Actien-Maschinen-Fabrik und Eisengiesserei, vormals Hornung & Rabe, Sangerhausen, Germany. Sugar-cane-slicing machine	457,221	Aug. 4	455	{ 118 119 120 }	{ 56 57 58 }	618
Shumacher, William, Brooklyn, N. Y. Die for ornamenting paper, leather, and other plastic materials	445,863	Feb. 3	580	141	54	625

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Schumacher, William, assignor of one-half to L. Rahmer, Brooklyn, N. Y. Printing in colors.	447,087	Feb. 24	2586	-----	54	1041
Schumacher, William, assignor of one-half to L. Rahmer, Brooklyn, N. Y. Printing in colors.	447,701	Mar. 3	680	-----	54	1247
Schumm, Hermann, assignor to Gas-Motoren-Fabrik-Deutz, Cologne, Germany. Gas or oil motor engine.	458,073	Aug. 18	1871	488	56	903
Schuster, Hermann F. E., Savannah, Ga. Pen-holder.	448,083	Mar. 10	1323	339	54	1377
Schuster, Jacob, and L. W. Link; said Link assignor to said Schuster; said Schuster assignor of two-thirds to Cossman & Banker, Cincinnati, Ohio. Egg-holder for testing eggs.	460,891	Oct. 6	554	140	57	108
Schuster, William H., Fountain City, Wis. Stove-pipe holder.	459,658	Sept. 15	1775	446	56	1424
Schütz, Conrad. (See Priester and Schütz.)						
Schuyler Electric Company. (See Lemp, Hermann, assignor.)						
Schuyler Electric Company. (See Lemp and Wightman, assignors.)						
Schwab, Gustave, New York, N. Y. Album.	462,590	Nov. 3	583	144	57	663
Schwab, Gustave, New York, N. Y. Album-leaf.	462,591	Nov. 3	584	144	57	663
Schwalen, John N., assignor of two-thirds to L. and O. Knott, Hudson, Wis. Draft attachment for hames.	458,983	Sept. 1	680	166	56	1198
Schwalen, John N., assignor of one-half to L. Knott, Hudson, Wis. Automatic vehicle-brake.	460,892	Oct. 6	555	140	57	109
Schwalm, William B. (See Helvern and Schwalm.)						
Schwander, Peter W. (See Heim and Schwander.)						
Schwanhauser, William, Brooklyn, N. Y. Chuck.	458,408	Aug. 25	2428	591	56	1014
Schwanhauser, William, Brooklyn, assignor to W. A. Perry and C. C. Worthington, New York, N. Y. Boring-machine.	446,792	Feb. 17	2078	519	54	937
Schwannecke, Henry, New York, N. Y. Fire-escape.	464,900	Dec. 8	1367	343	57	1405
Schwartz, Charles, Philadelphia, Pa. Suspender-buckle.	449,951	Apr. 7	454	114	55	89
Schwartz, Henry. (See Evans, John B., assignor.)						
Schwarz, Hermann, Prague, Bohemia, Austria-Hungary. Machine for printing and stamping vignettes.	456,857	July 28	2512	{ 658 } { 659 }	56	501
Schwarze, Carl J., Brooklyn, N. Y. Dynamo-electric machine.	445,906	Feb. 3	639	157	54	637
Schwarze, Carl J., Brooklyn, N. Y. Electric-arc lamp.	446,297	Feb. 10	1322	322	54	773
Schwarze, Carl J., Brooklyn, N. Y. Arc-light system.	446,298	Feb. 10	1323	322	54	773
Schwarzmann, John, Washington, D. C. Rotary engine.	450,874	Apr. 21	1913	470	55	386
Schwarzmann, John, Washington, D. C. Rotary engine.	451,777	May 5	512	126	55	675
Schweers, Raphael, Dantzig, Germany. Velocipede.	454,070	June 16	1340	350	55	1420
Schweeters, John A., Boston, Mass. Piano-pliers.	456,966	Aug. 4	67	16	56	546
Schwegman, William, Indianapolis, Ind. Pressure-plate for veneer-cutting machines.	458,717	Sept. 1	260	62	56	1115
Schweilhold, Henry, Toledo, Ohio. Display-horse.	458,598	Sept. 1	77	17	56	1081
Schweizer, George H. St. Louis, Mo. Vehicle-step.	452,198	May 12	1221	308	55	812
Schweizer, Eduard. (See Mistic and Schweizer.)						
Schweizer, Jakob, Zurich, assignor to Müller & Schweizer, Tolothwin, Switzerland. Pivot-lathe.	446,211	Feb. 10	1158	284	54	741
Schweizer, Jakob, assignor to Müller & Schweizer, Soleure, Switzerland. Pivot-lathe.	457,373	Aug. 11	757	195	56	680
Schweizer, Jakob, Zurich, assignor to Müller & Schweizer, Soleure, Switzerland. File and polisher.	460,312	Sept. 29	2783	693	56	1631
Schwend, Charles, Birmingham, Ala. Police-baton.	450,258	Apr. 14	921	228	55	183
Schwerkert, E. & J. (See Hornberger, John F., assignor.)						
Schwertner, Joseph, Detroit, Mich. Pipe-organ.	465,390	Dec. 15	2213	{ 567 } { 568 }	57	1574
Schwing, Walter E. (See Folmer and Schwing.)						
Schyecker, Carl J. M., Chicago, Ill. Mandrel for dental engines.	456,208	July 21	1426	378	56	290
Sciaroni, Agostino. (See Dyer, James M., assignor.)						
Scotfield, Levi, Grand Haven, Mich. Check-row attachment.	463,457	Nov. 17	1962	512	57	948
Scotfield, Lewis, Sr., Chattanooga, Tenn. Railway-rail fastening.	461,717	Oct. 20	1909	472	57	379
Scollay, George W., New York, N. Y. Paint from residuum of vegetable oils.	446,018	Feb. 10	826	-----	54	681
Scollay, George W., New York, N. Y. Making paint.	446,019	Feb. 10	828	-----	54	682
Scott, Absalom T., assignor of one-half to I. S. Bow, Burkesville, Ky. Adjustable connection for plow-beams.	452,321	May 12	1418	351	55	850
Scott, Adam, Wilmington, Ohio. Sweat-pad.	464,258	Dec. 1	401	96	57	1210
Scott, Alexander, Cronly, N. C. Machine for fibrillation of pine-needles.	447,206	Feb. 24	2806	694	54	1082
Scott, Arthur, assignor to W. Scott, Plainfield, N. J. Rotative speed-regulating mechanism.	444,136	Jan. 6	259	62	54	53
Scott, Ashmead E., Blue Island, Ill. Mercurial air-pump.	462,455	Nov. 3	373	92, 93	57	622
Scott, Charles D., Eldred, Pa. Locomotive for tramways.	452,124	May 12	1099	280	55	789
Scott, Charles E., et al. (See Beardsley, Frank C., assignor.)						
Scott, De Marquis, Goss, Mo. Grain-separator.	447,845	Mar. 10	940	236	54	1303
Scott, E. Irvin. (See Keep, James M., assignor.)						
Scott, Eben M., Huntington, Conn. Knockdown paper box.	448,824	Mar. 24	2533	635	54	1626
Scott, Edward. (See Scott and Cornell.)						
Scott Electrical Manufacturing Company. (See Ward, Barton B., assignor.)						
Scott, Elmer D., West Cleveland, assignor to himself, A. E. Lynch, and W. E. Donnelly, Cleveland, Ohio. Safety attachment for pocket-books.	463,169	Nov. 17	1516	394	57	862
Scott, Ernest G., assignor to Lever Bros., Port Sunlight, near Birkenhead, England. Extracting oils.	465,031	Dec. 15	1617	-----	57	1463
Scott, Frank G. and G. L., Newport, R. I. Pipe-hanger.	448,550	Mar. 17	2080	522	54	1533
Scott, Fred W., Concord, N. H. Shut-off nozzle.	464,335	Dec. 1	518	126	57	1233
Scott, George A., assignor to S. Bergmann, New York, N. Y. Electric cut-out.	445,822	Feb. 3	520	125	54	613
Scott, George L. (See Chorlton and Scott.)						
Scott, George L. (See Scott, Frank G. and G. L.)						
Scott, George W., Troy, Ohio. Canopy-top.	456,384	July 21	1724	456	56	345
Scott, Gordon J., assignor of one-half to C. G. Goodrich, Minneapolis, Minn. Overhead electric-conductor system.	454,881	June 30	2606	669	55	1672
Scott, Gordon J., assignor of one-half to C. G. Goodrich, Minneapolis, Minn. Electro-dynamic machine.	454,882	June 30	2610	{ 669 } { 670 }	55	1673
Scott, Gordon J., assignor of one-half to C. G. Goodrich, Minneapolis, Minn. Motor generator or transformer.	454,883	June 30	2613	670	55	1673
Scott, Helen M., et al. (See Scott, William J., assignor.)						
Scott, Ira J., Jacksonville, N. C. Cultivator.	462,742	Nov. 10	824	214	57	719
Scott, Jacob R., New York, N. Y. Skiving-machine.	453,944	June 9	1160	303	55	1378
Scott, Jacob R., New York, N. Y. Clamp for preparing lifts for boot or shoe heels.	455,121	June 30	3067	780	55	1761
Scott, Jacob R., New York, N. Y. Machine for skiving heel-lifts.	462,594	Nov. 3	588	145	57	664
Scott, James, Pittsburg, Pa. Bosh-plate for furnaces.	452,618	May 19	1898	477	55	948
Scott, James, assignor of one-fourth to C. W. Betts and W. M. Scanlan, Denver, Colo. Automatic flush-tank.	450,798	Apr. 21	1783	{ 433 } { 434 }	55	363
Scott, James T., assignor of one-half to J. H. Jenkins and J. A. Lindsay, High Point, N. C. Box-clamp.	450,380	Sept. 8	1314	327	56	1329

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Scott, Jasper S., San José, Cal. Derrick-fork attachment	461,987	Oct. 27	2350	{ 582 583	57	473
Scott, John, Sonthington, Conn. Combined tack draw and set	461,688	Oct. 20	1863	461	57	371
Scott, John A. (See Mackay, James T., assignor.)						
Scott, John W. (See Albrecht, Rudolf F., assignor.)						
Scott, John W. (See Jones and Scott.)						
Scott, Johnson W., <i>et al.</i> (See Kimmel, Joseph, assignor.)						
Scott, Mahlon M., Newark, N. J. Leather graining and softening machine	462,825	Nov. 10	960	{ 249 250	57	746
Scott, Martha J., <i>et al.</i> (See Scott, William J., assignor.)						
Scott, Montezuma, New Brighton, Pa. Wash-board	444,022	Jan. 6	63	17	54	15
Scott, Montezuma, New Brighton, Pa. Manufacturing tile	452,113	May 12	1079	273	55	785
Scott, Robert D., Pontiac, Mich. Road-cart	451,528	May 5	124	31	55	603
Scott, Robert D., Pontiac, Mich. Road-cart	453,214	June 2	51	14	55	1158
Scott, Robert D., Pontiac, Mich. Road-cart	457,621	Aug. 11	1140	291	56	754
Scott, Robert D., Pontiac, Mich. Road-cart	461,645	Oct. 20	1795	442	57	357
Scott, Robert H., Masterton, New Zealand. Wick-trimmer	452,289	May 12	1358	338	55	839
Scott, Robert W., and L. N. D. Williams, Philadelphia, Pa. Stocking	462,592	Nov. 3	585	144	57	663
Scott, Royal R., Canandaigua, and J. R. Hillman, Shortsville, N. Y. Game	449,140	Mar. 31	3024	765	54	1729
Scott-Russell, Norman, London, England. Combined door check and spring	446,561	Feb. 17	1736	427	54	869
Scott, Samuel C., New York, N. Y. Cuff-button or stud	457,034	Aug. 4	153	37	56	563
Scott, Thomas T., and J. J. Sheafor, Mott, Cal. Apparatus for feeding sawdust and shavings to furnaces	460,729	Oct. 6	315	77	57	62
Scott, Walter. (See Dickover and Scott.)						
Scott, Walter. (See Scott, Arthur, assignor.)						
Scott, Walter, Plainfield, N. J. Cutting and feeding mechanism for printing-presses	444,137	Jan. 6	261	62, 63	54	53
Scott, Walter, Plainfield, N. J. Paper feeding and cutting mechanism for printing-machines	444,138	Jan. 6	264	63	54	54
Scott, Walter, Plainfield, N. J. Web-printing press	446,696	Feb. 17	1934	482	54	907
Scott, Walter, Plainfield, N. J. Printing-press. (Reissue)	11,166	May 12	1474	365	55	861
Scott, Walter, Plainfield, N. J. Oscillating-cylinder printing-press	456,741	July 28	2318	{ 612 613	56	467
Scott, Walter, Plainfield, N. J. Web printing, folding, and cutting machine	458,350	Aug. 25	2331	569	56	997
Scott, Walter, Plainfield, N. J. Stopping and reversing mechanism for printing-presses	459,139	Sept. 22	2214	556	56	1515
Scott, Walter, Plainfield, N. J. Stopping and reversing mechanism for printing-presses	460,994	Oct. 13	704	182	57	144
Scott, Walter, Plainfield, N. J. Offset mechanism for printing-presses	463,244	Nov. 24	2581	{ 671 672	57	1074
Scott, Walter, and F. Fenley, New Orleans, La.; said Fenley assignor to said Scott. Steam-engine	462,593	Nov. 3	587	144	57	664
Scott, Walter A., <i>et al.</i> (See Mitchell, Oliver F., assignor.)						
Scott, William, Leavenworth, Kans. Horse-door letter-box	449,593	Mar. 31	3775	{ 947 948	54	1867
Scott, William, Leavenworth, Kans. Letter-box for collection and delivery	458,273	Aug. 25	2210	542	56	973
Scott, William, Detroit, Mich. Safety-valve	455,476	July 7	279	71	56	56
Scott, William and E. Jackson, and H. R. Cornell, Liberty, Ind. Farm-gate	463,554	Nov. 17	2121	559	57	978
Scott, William G., Columbus, Miss. Impact tool	459,891	Sept. 22	2141	538	56	1502
Scott, William J., assignor to H. M. and M. J. Scott, Albany, N. Y. Blacking-brush	446,696	Feb. 10	1458	358	54	802
Scott, William J., assignor to H. M. and M. J. Scott, Albany, N. Y. Blacking-brush	456,911	July 28	2600	683	56	518
Scovel, James D., Detroit, Mich. Roof for hot-houses	444,254	Jan. 6	438	110	54	86
Scovel, James D., Detroit, Mich. Glass-roof frame	460,313	Sept. 29	2784	694	56	1631
Scovell, Hannibal, Portland, Colo. Ore-concentrator	452,393	May 19	1538	381	55	882
Scovell, Hannibal, Portland, Colo. Grading and concentrating ores	454,071	June 16	1341	351	55	1420
Scovill & Adams Company. (See Fuller, Willard H., assignor.)						
Scovill & Adams Company. (See Vega, Marino, assignor.)						
Scovill, Benjamin P. (See Bashaw and Scovill.)						
Scovill Manufacturing Company. (See Goss, Edward O., assignor.)						
Scovill Manufacturing Company. (See Hyde, Theophilus R., Jr., assignor.)						
Scovill Manufacturing Company. (See Lines, John, assignor.)						
Scovill Manufacturing Company. (See Reed, George E., assignor.)						
Scovill Manufacturing Company. (See Shipley, Alfred J., assignor.)						
Scovill Manufacturing Company. (See Welton, Edwin D., assignor.)						
Seranton, Abel W. (See Yancey, Lee, assignor.)						
Seranton, Alfred H. (See Seranton, Alfred L. and A. H.)						
Seranton, Alfred L. and A. H., Western Springs, Ill. Track for door-hangers	446,103	Feb. 10	966	238	54	707
Seranton, James P. (See Hargreaves, Seranton, and Porter.)						
Screven County Lumber Company. (See Jones, Lorenzo D., assignor.)						
Scribner, Charles E., Chicago, Ill. Cut-out for arc lamps	455,953	July 14	1052	276	56	209
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Dynamometer	452,941	May 26	2426	{ 612 613	55	1060
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Fastener for spring-jacks of switch-boards	459,711	Sept. 15	1852	465	56	1440
Scribner, Ernest V. (See Macomber and Scribner.)						
Scribner Libbey Company. (See Flagg, Ellis C., assignor.)						
Scriven, Jeremiah A., New York, N. Y. Collar	460,787	Oct. 6	405	98	57	80
Scroggin, William. (See Pierce, Joel A., assignor.)						
Scrugham, George R., Lexington, Ky. Electric-wire connector	461,452	Oct. 20	1429	360	57	290
Scudder, Abram L., Deposit, N. Y. Jeweler's clamp	456,164	July 21	1360	361	56	278
Scudder, Wilbur S., Syracuse, N. Y. Type-writing machine	457,673	Aug. 11	1214	312	56	768
Scudder, Wilbur S., Brooklyn, N. Y., assignor to National Typographic Company, of West Virginia. Machine for casting linotypes	444,090	Jan. 6	172	43	54	37
Sculthorpe, Walter J., Columbia Grove, assignor of one-half to C. M. Hardy, Reedy, Va. Tobacco-hanger	447,242	Feb. 24	2875	714	54	1096
Scutt, Frank W., Long Island City, N. Y. Toilet-paper distributor	464,321	Dec. 1	498	119	57	1229
Seabury, Charles E., Stony Brook, N. Y. Car-coupling	456,858	July 28	2513	659	56	501
Seabury, Samuel, Bergen Point, N. J. Breech-loading ordnance	448,269	Mar. 17	1627	{ 415 416	54	1446
Seal, William B., Baltimore, Md. Making fertilizers	445,255	Jan. 27	2058	.....	54	425
Seal, William B., assignor to W. S. Reins, Baltimore, Md. Car-coupling	462,999	Nov. 10	1235	321	57	799
Seaman, Joseph S., Pittsburg, Pa. Manufacture of posts, poles, &c	466,012	Dec. 29	3232	{ 823 824	57	1789
Seaman, William. (See Eynon and Seaman.)						
Seamans, Clarence W., <i>et al.</i> , executors. (See Wallace, Casper D., assignor.)						
Search, Casper F., assignor to Appleton Manufacturing Company, Appleton, Wis. Feed-cutter	450,732	Apr. 21	1676	405	55	343

Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Searight, Frank M., <i>et al.</i> (See Brooks, Benjamin F. C., assignor.)						
Searing, James E., Mount Vernon, N. Y. Watch-case.	450,637	Apr. 21	1544	371	55	318
Searing, James E., Mount Vernon, N. Y. Watch-case spring.	450,638	Apr. 21	1546	372	55	318
Searing, James E., Mount Vernon, N. Y. Watch-case	463,289	Nov. 17	1694	443	57	897
Searing, Theodore W., New York, N. Y., assignor, by mesne assignments, to Pearl Type-writer Company, of New Jersey. Type-writing machine.	452,290	May 12	1359	{ 338 339 }	{ 55 55 }	{ 839 839 }
Searle, George S., Salem, Mass. Pipe-vise	455,414	July 7	191	49	56	40
Searle, John Q. C., Chicago, Ill. Car-heating apparatus	461,280	Oct. 13	1139	290	57	227
Searle, John Q. C., Chicago, Ill. Car-heating apparatus	461,281	Oct. 13	1140	291	57	227
Searle, John Q. C., Chicago, Ill. Car-heating apparatus	461,282	Oct. 13	1141	291	57	228
Searle, John Q. C., Chicago, Ill. Car-heating apparatus	461,283	Oct. 13	1142	291	57	228
Searle, John Q. C., Chicago, assignor to J. E. Searle, Cook County, Ill. Means for heating railway-cars. (Reissue)	11,170	June 2	667	{ 172 173 }	{ 55 55 }	{ 1274 1274 }
Searle, John Q. C., Chicago, assignor to J. E. Searle, Cook County, Ill. Means for heating railway-cars. (Reissue)	11,196	Sept. 29	3153	788	56	1704
Searle, Julia E. (See Searle, John Q. C., assignor.) (Reissue.)						
Searles, Orren I., G. F. Jackson, and F. M. Gustin, Fort Madison, Iowa. Device for cleaning cisterns.	447,368	Mar. 3	151	41	54	1146
Searls, Anson, assignor to Searls-Randall Company, Newark, N. J. Top-prop for carriages	446,474	Feb. 17	1602	393	54	843
Searls-Randall Company. (See Searls, Anson, assignor.)						
Sears, Charles, Chicago, Ill. Stereotype-mold	446,930	Feb. 24	2332	579	54	993
Sears, Edward S., Winthrop, assignor to American Decorative Company, Boston, Mass. Means for making embossed and printed decorative materials for walls, &c.	454,667	June 23	2264	{ 581 582 }	{ 55 55 }	{ 1600 1600 }
Sears, Henry B., Walpole, and J. E. Tuttle, Chelsea, Mass.; said Tuttle assignor to said Sears. Harness	458,430	Aug. 25	2459	{ 598 599 }	{ 56 56 }	{ 1020 1020 }
Sears, Henry D. (See Hayes and Sears.)						
Sears, William G., Chattanooga, Tenn. Railway rail tie and track fastener	444,909	Jan. 20	1509	388	54	311
Sears, William G., Chattanooga, Tenn. Rail-tie	444,910	Jan. 20	1511	389	54	311
Searvogle, John, Rochester, N. Y. Mat. fe pictures	460,663	Oct. 6	206	53	57	43
Seaton, Benjamin C., assignor of one-half to A. W. Southworth, Nashville, Tenn. Safety attachment for cars	456,126	July 14	1295	340	56	256
Seaton, Charles S., assignor of one-half to J. A. Seaton, Cleveland, Ohio. Machine for heading bolts, &c.	444,460	Jan. 13	750	{ 196 197 }	{ 54 54 }	{ 157 157 }
Seaton, Charles S., and F. Miller, assignors to said Seaton and J. A. Seaton, Cleveland, Ohio. Machine for heading bolts or rivets	458,240	Aug. 25	2135	{ 524 525 }	{ 56 56 }	{ 960 960 }
Seaton, John A. (See Seaton, Charles S., assignor.)						
Seaton, John A. (See Seaton and Miller, assignors.)						
Seaver, A., <i>et al.</i> (See Young, James A., assignor.)						
Seaver, Augustus, trustee. (See Hobbs, Edward, assignor.)						
Seaver, Augustus, Boston, assignor to C. F. Brown, trustee, Reading, Mass. Welt for boots or shoes	453,985	June 9	1221	317	55	1390
Seaver, Augustus, Boston, and W. S. Hammi, Newton, assignors to C. F. Brown, trustee, Reading, Mass. Lasting machine	444,858	Jan. 20	1418	368	54	293
Seaver, E. B., <i>et al.</i> (See Young, James A., assignor.)						
Seavert, Herman F., Fort Atkinson, Wis. Horse-collar fastener	447,586	Mar. 3	519	127	54	1214
Seawell, Jesse P., Clarksburg, Mo., and J. H. O'Hara, New York, N. Y. Automatic car-brake	447,207	Feb. 24	2807	695	54	1083
Sebenius, Johan L., Stockholm, Sweden. Casting	444,162	Jan. 6	299	72	54	61
Sebring, James L. (See Paine and Sebring.)						
Seck, Heinrich, Dresden, Germany. Traveling brush	466,189	Dec. 29	3506	896	57	1843
Secor, Jerome B., Bridgeport, Conn. Type-writing machine	450,775	Apr. 21	1744	{ 422 423 424 }	{ 55 55 55 }	{ 356 356 356 }
Secor, Jerome B., Bridgeport, assignor to Typograph Company, Hartford, Conn. Type-writing machine	464,944	Dec. 8	1433	{ 360 361 }	{ 57 57 }	{ 1419 1419 }
Secor, John A., Brooklyn, N. Y. Safety appliance for lamps or oil-stoves	456,127	July 14	1296	341	56	257
Secord, Herbert C., <i>et al.</i> (See Rodwell, George J. B., assignor.)						
Sedgley, Frank, London, England. Instrument for sampling or gaging the depth of liquids in tanks, vats, or other vessels.	455,122	June 30	3068	781	55	1761
Sedgwick, Frederick, Chicago, Ill. Printing-telegraph instrument	454,884	June 30	2615	{ 671 672 673 }	{ 55 55 55 }	{ 1673 1673 1673 }
Sedlmeyer, John H., Johnstown, Pa. Safety device for electric wires	457,374	Aug. 11	759	195	56	680
Sedon, Nicholas, Lettellin, Canada. Car-coupling	462,332	Nov. 3	179	45	57	584
See, Christian, St. Paul, Minn. Horse-litching device	448,270	Mar. 17	1632	416	54	1447
See, James W., Hamilton, Ohio. Office-cabinet	450,196	Apr. 14	803	203	55	163
See, James W., Hamilton, Ohio. Key for winding time-locks	464,189	Dec. 1	278	68	57	1187
See, James W., assignor to A. E. Zschau, Hamilton, Ohio. Magic lantern for advertising purposes	451,413	Apr. 28	2754	681	55	557
Seebeck, John. (See Thomas, Oscar J., assignor.)						
Seeberger, Georg C., Munchberg, Germany. Impregnating leather	458,132	Aug. 18	1957	.....	56	920
Seeberger, Johann H., New York, N. Y. Washing-fluid	450,431	Apr. 14	1199	.....	55	236
Seeburger, Walter L. (See Wilcox, Stephen C., assignor.)						
Seeger, Valentine, Toledo, Ohio. Combined pipe-coupling valve and plate	455,008	June 30	2872	730	55	1723
Seel, Charles, Stockport, England. Skirt-elevator	462,221	Oct. 27	2715	684	57	542
Seelar, Jacob J., Philadelphia, Pa. Controlling device for elevators	446,717	Feb. 17	1966	490	54	914
Seelbach, Arthur L., Cleveland, Ohio. Guy-rope fastener	446,020	Feb. 10	830	199	54	682
Seelbach, John, Jr., Palmer, Ill. Corn-planter	462,281	Nov. 3	91	24	57	568
Seeley, John F., <i>et al.</i> (See Reason, Walter M., assignor.)						
Seeley, John F., <i>et al.</i> (See Wright, Herbert A., assignor.)						
Seeley, Stephen, Boston, Mass. Piano-pedal	457,592	Aug. 11	1099	280	56	747
Seely, Obadiah, assignor to E. C. Stearns & Co., Syracuse, N. Y. Pneumatic door-check	448,889	Mar. 24	2637	{ 662 663 }	{ 54 54 }	{ 1645 1645 }
Seely, Willis G., Altamont, N. Y. Device for operating friction-clutches	459,175	Sept. 8	995	243	56	1265
Seelye, Norman M., Cambridge, Mass. Elevator	465,214	Dec. 15	1918	487	57	1519
Seeman, Henry, Durham, N. C. Vehicle	462,168	Oct. 27	2622	654	57	524
Seemiller, Otto, assignor of one-half to L. W. Widmann, New Haven, Conn. Propeller	446,697	Feb. 17	1937	483	54	907
Seery, James F., Kingsbridge, assignor of one-half to D. C. Andrews, New York, N. Y. Apparatus for removing snow from road-beds	460,893	Oct. 6	557	{ 140 141 }	{ 57 57 }	{ 109 109 }
Sefton, Orlando J., Sedgwick, Kans. Toe-weight and quarter-boot fastener	444,023	Jan. 6	64	17	54	15
Sefton, William E., Canton, Ohio. Hillside-plow	461,624	Oct. 20	1765	434	57	351
Segal, Jennie, assignor of one-fourth to E. Rehm, Cincinnati, Ohio. Attachment for hot-air registers	450,322	Apr. 14	1021	252	55	202

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Segar, Charles T., Kenosha, Wis. Folding chair	465,500	Dec. 22	2388	611	57	1618
Segar, Charles T., Utica, N. Y., assignor to E. Z. Wright, receiver. Folding cot	464,524	Dec. 8	804	196	57	1297
Segbers, Joseph A., San Francisco, Cal. Flop-board for bolting devices	460,763	Oct. 6	364	90	57	72
Segschneider, Gustav, Yonkers, N. Y., assignor to Waring Hat Manufacturing Company, of New York. Pile-wire for looms	464,043	Dec. 1	54	15	57	1147
Serquin, Augustin, assignor to Cie des Fonderies et Forges de L'Horme, (Chantiers de la Buire,) Lyons, and A. Lencanzech, Paris, France. Apparatus for the manufacture of gas	465,146	Dec. 15	1819	461	57	1499
Segundo, Edward C. de, Westminster, England. Counter-operating mechanism for type-writers	455,123	June 30	3069	781	55	1761
Segur, Joseph M., and J. R. Haight, Adrian, Mich. Cash and parcel carrier	445,087	Jan. 20	1779	458	54	363
Sehrke, Richard, assignor to R. Klein and L. Fromm, Berlin, Germany. Toy	456,251	July 21	1503	400	56	304
Seiberling, John F., Akron, Ohio. Electric motor or generator	450,639	Apr. 21	1347	372	55	318
Seiberling, John F., Akron, Ohio. Electric-motor-car truck	455,581	July 7	462	120 121	56	89
Seibert, Nicholas, Malden, Mass. Electric railway	446,475	Feb. 17	1603	393	54	843
Seibert, Nicholas, Malden, Mass. Lubricator	465,679	Dec. 22	2680	683 684	57	1673
Seibert, Philip, Philadelphia, Pa. Dumping-wagon	458,919	Sept. 1	578	141	56	1176
Seibert, William P. (See Jarboe, Seibert, and White.)						
Seibert, William P., assignor of two-thirds to W. S. Jarboe and J. White, Allegheny, Pa. Span-wire insulator	456,600	July 28	2073	548	56	420
Seibold, Albert C., Mount Vernon, N. Y. Electrode for electric-arc lamps	447,702	Mar. 3	681	169	54	1247
Seibold, Albert C., Mount Vernon, N. Y. Electrode for arc lamps	448,084	Mar. 10	1323	339	54	1377
Seidel, Benjamin, Cokato, Minn. Grain-elevator	455,432	July 7	217	55	56	44
Seidenstucker, Frank J., Cambridge, Mass. Oil-lamp appliance	461,370	Oct. 13	1293	327	57	258
Seiders, William R., assignor of one-half to J. F. McGlinn, Reading, Pa. Car-brake	449,630	Mar. 31	3854	961	54	1882
Seifried, Samuel J., assignor to Munson Type Writer Company, Chicago, Ill. Type-writing machine	446,394	Feb. 10	1459	358 359	54	802
Seigle-Goujon, Adolphe, Lyons, France. Device for heating by gas or combustible vapor	448,460	Mar. 17	1951	491	54	1508
Seiler, Paul, San Francisco, Cal. Locomotive	457,939	Aug. 18	1672	437	56	864
Seivert, John W., Medical Lake, Wash. Propelling-wheel	461,547	Oct. 20	1640	401	57	329
Selby, James, Peoria, Ill. Corn-planter	455,839	July 14	885	232	56	178
Selby, James, Peoria, Ill. Corn-planter	455,840	July 14	886	233	56	179
Selden, Charles, and G. R. Ott, Baltimore, Md. Railway-signal	452,394	May 19	1540	382	55	883
Self Acting Bell Company. (See Iske, Albert, assignor.)						
Self-Locking Anti-Tack Freight Car Label Company. (See Proctor, David R., assignor.)						
Selkirk, James E., Hopkins, Mich. Motor for pumping, &c.	461,963	Oct. 27	2315	574	57	466
Sell, Edgar E., Philadelphia, Pa. Convertible furniture	452,171	May 12	1184	299 300	55	805
Sell, Frank A., and W. O'Connor, Red Lodge, Mont. Gravity haulage-machine	445,088	Jan. 20	1780	459	54	363
Selle, Herman C., assignor of one-half to W. F. Smith, Grinnell, Iowa. Hay-stacker	457,134	Aug. 4	304	80	56	591
Selleck, Herman D. (See Copeland, David W., assignor.)						
Selleck, William E., Chicago, Ill. Screen	445,089	Jan. 20	1781	459	54	364
Selleck, William E., Chicago, Ill. Furnace	462,804	Nov. 10	926	241	57	739
Seller, Harry W. (See Reese and Seller.)						
Seller, Harry W., Brooklyn, N. Y. Water-tube boiler	464,109	Dec. 1	153	38	57	1166
Sellers, John C., assignor of one-half to A. Weller, Husband, Pa. Hay-rack	450,109	Apr. 7	682	173	55	133
Sellers, William, Philadelphia, Pa. Constructing the flues of Galloway boilers	454,571	June 23	2095	540 541	55	1571
Sellers, William, Philadelphia, Pa. Riveting-machine	454,572	June 23	2097	542	55	1571
Sellers, William, Haverhill, assignor to F. Anderson, Merrimac, Mass. Thill-tip	451,892	May 5	675	171	55	707
Sellers, William, Haverhill, assignor to Peabody Whitney Company, Boston, Mass. Campaign-horn	455,671	July 7	601	158	56	117
Sellon, John S., London, England, assignor, by mesne assignments, to Accumulator Company, of New Jersey. Secondary battery	454,187	June 16	1510	396	55	1452
Sells, Osborn P. (See Hand and Sells.)						
Selwig and Lange. (See Müller, Theodor, assignor.)						
Semmel, Howard S., J. W. Balliet, and S. J. Schaffer, Slatington, Pa. School-slate	451,336	Apr. 28	2643	653	55	537
Semple, Harry, assignor of one-half to J. F. Flood, Steubenville, Ohio. Velocipede	447,741	Mar. 3	746	187	54	1259
Semple, William F., Mount Vernon, Ohio. Map-holder	446,021	Feb. 10	831	200	54	682
Senderling, Martin L., Jersey City, N. J. Dumping-cart	460,255	Sept. 29	2682	668 669	56	1612
Seneca, Stephen J., Havre de Grace, Md. Can-soldering machine	452,584	May 19	1845	464	55	938
Seufner, Robert. (See Rochow, Ferdinand, assignor.)						
Seng, Wendelin. (See Hart, Charles A., assignor.)						
Sennevooy, Augustin P. de, Paris, France. Apparatus for recutting files	448,144	Mar. 10	1409	360	54	1395
Senour, Faunt L., New Alexandria, Pa. Potato-digger	448,551	Mar. 17	2082	522	54	1333
Sercombe, Parker H. (See Bolte, Frank H., assignor.)						
Sercombe, Parker H. (See Hurrell, William E., assignor.)						
Sergeant, Charles H., New York, N. Y. Double scotch-yoke engine	444,139	Jan. 6	267	64	54	55
Sergeant, Charles H., New York, N. Y. Mining-column	444,140	Jan. 6	268	64	54	55
Sergeant, Frederick C. L., Denver, Col. Ore-concentrator	444,785	Jan. 13	1260	326	54	254
Sergeant, Henry C., New York, N. Y., assignor to Ingersoll-Sergeant Rock Drill Company, of New York. Compressed-air-cylinder lubricator	447,910	Mar. 10	1052	263	54	1324
Sergeant, Henry C., assignor to Ingersoll-Sergeant Drill Company, New York, N. Y. Compound compressor for air or other gaseous bodies	456,165	July 21	1361	361 362 351 552 553 554	56	278
Serkey, Joseph von, assignor of three-fourths to R. King, Chicago, Ill. Wire-nail machine	448,620	Mar. 17	2204	552 553 554	54	1556
Seror, John, assignor of one-half to E. C. Doyle, Cohoes, N. Y. Railway-rail-cleaning machine	444,675	Jan. 13	1087	281 282	54	223
Serrell, Edward W., New York, N. Y. Bridge	445,302	Jan. 27	2114	547	54	437
Serrell, Lemuel W. (See Birdsall and Serrell.)						
Serrell, William C., Bayonne, N. J. Railway-signal	457,135	Aug. 4	305	80	56	592
Serve, Jean P., Givors, France. Apparatus for drawing tubes	457,222	Aug. 4	456	120	56	618
Servettaz, Giovanni, Savona, Italy. Switch and signal apparatus	466,190	Dec. 29	3507	896 897	57	1843
Servis, David, Weedsport, N. Y. Railway-spike	455,362	July 7	99	28	56	23
Sessions, Henry H., assignor to Pullman's Palace Car Company, Chicago, Ill. Car-brake	447,911	Mar. 10	1054	263 264	54	1325
Sessions, Henry H., assignor to Pullman's Palace Car Company, Chicago, Ill. Car construction	453,403	June 2	346	90	55	1213

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Sessions, Henry H., assignor to Pullman's Palace Car Company, Chicago, Ill. Car construction	456,291	July 21	1372	415	56	317
Sessions, Henry H., assignor to Pullman's Palace Car Company, Chicago, Ill. Curtain for sleeping-car berths	456,292	July 21	1573	415 416	56	318
Sessions, Henry H., assignor to Pullman's Palace Car Company, Chicago, Ill. Heating apparatus for railway-cars	460,281	Sept. 29	2738	681	56	1623
Sessler, S. D. (See Jones, Thomas E., assignor.)						
Settle, John C., et al. (See Montgomery, James P., assignor.)						
Setzer, Gustav A., assignor to M. C. Setzer, Baltimore, Md. Water-coil boiler	444,399	Jan. 6	653	169	54	129
Setzer, Mary C. (See Setzer, Gustav A., assignor.)						
Severance, James R., Poughkeepsie, N. Y. Knotting mechanism for grain-binders	452,456	May 19	1644	411 412	55	901
Severance, James R., Poughkeepsie, N. Y. Knotting mechanism for grain-binders	452,457	May 19	1647	412 413	55	902
Severance, James R., Poughkeepsie, N. Y. Feeding mechanism for grain-binders	452,458	May 19	1651	413 414	55	902
Severance, James R., Poughkeepsie, N. Y. Grain-binder	452,460	May 19	1660	416 417	55	904
Severance, James R., Poughkeepsie, N. Y. Bundle-discharger for grain-binders	452,461	May 19	1665	417	55	904
Severance, James R., Poughkeepsie, N. Y., assignor of two-thirds to W. D. Baldwin, Montclair, N. J., and J. O. Adsit, Hornellsville, N. Y. Grain-binder	452,459	May 19	1653	414 415	55	903
Severance, James R., Hornellsville, N. Y., assignor of two-thirds to W. D. Baldwin, Montclair, N. J., and J. C. Adsit, Hornellsville, N. Y. Grain-binder	458,553	Aug. 25	2647	644 645	56	1057
Severin, Julius, Aurora, Ind. Vehicle-wheel	453,215	June 2	52	14	55	1158
Sewall, James H., Portland, Me., assignor to Consolidated Car Heating Company of West Virginia, Albany, N. Y. Car-heating apparatus	445,090	Jan. 20	1784	459	54	364
Seward, Williamson B., Bloomington, Ind. Automatic vending apparatus	453,392	June 2	323	84, 85	55	1209
Seward, Delos, Buffalo, N. Y. Combined scalper and purifier	454,950	June 30	2755	702	55	1699
Sewell, Harold E. (See Cole, Marion L., assignor.)						
Sexton, Isaac, Somerville, Mass. Liquid-holding can	460,327	Sept. 29	2806	699	56	1636
Sexton, William H. C., Springfield, Ill. Saw-mill	465,117	Dec. 15	1770	447	57	1490
Sextro, Joseph G., Cincinnati, Ohio. Folding bed	457,796	Aug. 18	1423	369	56	818
Seybert, Harvey F., Queenstown, Pa. Device for spraying oil from the tubing of oil-wells	448,085	Mar. 10	1325	339	54	1378
Seybold, Charles, Cincinnati, Ohio. Book-trimming machine. (Reissue)	11,184	Aug. 4	681	175 176	56	658
Seybold, Charles, Cincinnati, Ohio. Paper-cutting machine	464,202	Dec. 1	307	75	57	1192
Seybold, Charles, Cincinnati, and C. Whealen, assignors to C. L. Hawes Company, Dayton, Ohio. Machine for pasting and uniting sheets of straw-board	453,567	June 2	605	154 155	55	1262
Seylar, George W., Hancock, Md. Car-wheel	457,094	Aug. 4	254	66	56	582
Seyler, Andrew J., Cedarville, Ill. Washing-machine	457,223	Aug. 4	458	120	56	619
Seyller, George. (See Smith, Walton D., assignor.)						
Seymour, Albert P., Syracuse, N. Y. Fuse-block	446,895	Feb. 24	2267	563 564	54	982
Seymour, Albert P., Syracuse, N. Y. Carbon-clamp for electric-arc lamps	458,718	Sept. 1	261	62	56	1115
Seymour, Allen L., Orange, N. J. Toy detonator	449,706	Apr. 7	95	25	55	21
Seymour, Charles, assignor to Defiance Machine Works, Defiance, Ohio. Cutter-head	446,476	Feb. 17	1604	394	54	844
Seymour, Charles E., Hurley, Wis. Spike	440,705	Apr. 7	94	25	55	20
Seymour, Charles E., Hurley, Wis. Ore-concentrator	456,967	Aug. 4	68	17	56	546
Seymour, Charles E., Hurley, Wis. Ore-concentrator	456,968	Aug. 4	70	17	56	546
Seymour, Charles E., Hurley, Wis. Ore-concentrator	459,858	Sept. 22	2085	523	56	1492
Seymour, Charles E., Hurley, Wis. Ore-concentrator	461,893	Oct. 27	2198	542	57	444
Seymour, Charles J. (See Phillips, Charles H., assignor.)						
Seymour, Charles J. (See Phillips and Seymour.)						
Seymour, Charles J., Brookline, Mass. Barge or other vessel	457,622	Aug. 11	1142	291 292	56	755
Seymour, Charles W., Hillsborough, Ill. Brick-truck	465,785	Dec. 22	2832	726	57	1704
Seymour, George E., Boston, Mass. Bicycle-saddle	455,363	July 7	100	29	56	23
Seymour, Henry A., Washington, D. C., assignor to Short Electric Railway Company, Cleveland, Ohio. Electric railway	458,665	Sept. 1	185	43, 44	56	1100
Seymour, James M., Jr., Newark, N. J. Attachment for exhaust or other fans	461,051	Oct. 13	784	200	57	158
Seymour, John B., Jr., assignor, by mesne assignments, to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter	451,623	May 5	278	67	55	631
Seymour, Louis L., Plymouth, assignor of one-half to C. T. Main, Lawrence, Mass. Apparatus for controlling the exhaust for condensing-engines	463,874	Nov. 24	2643	689	57	1085
Seymour, Samuel J., Chicago, Ill. Combined folding sink and drip-board	456,067	July 14	1214	330	56	239
Seymour, William S., assignor to E. H. Grey, Philadelphia, Pa. Woven-wire mattress	446,193	Feb. 10	1126	275 276	54	734
Shackell, Edward W. (See Thompson and Shackell.)						
Shackleton, Joseph, assignor to Richardson & Boynton Company, New York, N. Y. Heater	456,004	July 14	1129	296	56	223
Shaeffer, Philip J., assignor of one-half to L. Landauer, Philadelphia, Pa. Sash-balance	456,437	July 21	1811	479	56	361
Shafer, Charles F. (See Brain and Shafer.)						
Shafer, Joshua S., assignor of two-thirds to J. R. Davidson and R. G. Green, West Plains, Mo. Fanning-mill	448,809	Mar. 24	2515	630	54	1623
Shafer, Mary C. (See Lunn and Shafer.)						
Shafer, William B., Somerset, Pa. Stamp or label affixer	458,599	Sept. 1	78	18	56	1081
Shaffer, Charles H., Rockford, Ill., assignor to Electric Alarm Company, Muskegon, Mich. Electric alarm	452,135	May 19	2084	524 525	55	925
Shaffer, Charles H., Rockford, Ill., assignor to Electric Alarm Company, Muskegon, Mich. Electric alarm	460,287	Sept. 29	2743	663 684	56	1624
Shaffer, George H. (See Mott, Charles S., assignor.)						
Shaffer, James R., Huntington, Ind. Picket-wiring machine	451,581	May 5	206	49	55	619
Shaffer, John C. (See Hickley, Arthur S., assignor.)						
Shaffer, Richard M., Baltimore, Md. Balance-scale	460,036	Sept. 22	2342	587	56	1540
Shaffer, William C., Milwaukee, Wis. Fire-alarm apparatus	461,371	Oct. 13	1294	327	57	258
Shaffner, Henry C., Harrisburg, Pa. Measuring-faucet	459,534	Sept. 15	1561	389	56	1384
Shaft, Henry S. (See Ricks and Shaft.)						
Shaft, Henry S., assignor of two-thirds to J. W. Ricks and H. P. Shutts, Gloversville, N. Y. Bobbin-case holder for sewing machines	456,385	July 21	1725	456	56	346
Shain, Charles F., New York, N. Y. Fire-escape	452,924	May 26	2388	604	55	1052
Shain, Charles F., New York, N. Y. Dress-supporter	461,594	Oct. 20	1712	418	57	342
Shakel, William. (See Martin, Morris T., assignor.)						
Shakespeare, William, Jr. (See Low and Shakespeare.)						
Shallenberger, Oliver B., Rochester, assignor, by mesne assignments, to Westinghouse Electric and Manufacturing Company, Pittsburg, Pa. Meter for alternating electric currents	448,676	Mar. 24	2302	577	54	1581

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Shallenberger, Oliver B., Rochester, assignor, by mesne assignments, to Westinghouse Electric and Manufacturing Company, Pittsburg, Pa. Meter for alternating electric currents	448,677	Mar. 24	2303	577	54	1582
Shallenberger, Oliver B., Rochester, assignor, by mesne assignments, to Westinghouse Electric and Manufacturing Company, Pittsburg, Pa. Measuring alternating electric currents	449,001	Mar. 24	2805	709 710 711	54	1678
Shallenberger, Oliver B., Rochester, assignor, by mesne assignments, to Westinghouse Electric and Manufacturing Company, Pittsburg, Pa. Meter for alternating electric currents	449,002	Mar. 24	2808	711	51	1678
Shallenberger, Oliver B., Rochester, assignor, by mesne assignments, to Westinghouse Electric and Manufacturing Company, Pittsburg, Pa. Meter for alternating electric currents	449,003	Mar. 24	2810	711	54	1679
Shampay, Alfred, Chicago, Ill. Curtain and shade stretcher	463,692	Nov. 24	2360	618	57	1031
Shane, Carrie, Vinton, Iowa. Dress-fitting apparatus	451,979	May 12	827	211 212	55	743
Shank, Charles H., Armordale, Kans. Electric-light crane	456,859	July 28	2514	660	56	502
Shannon, Andrew R., Watertown, N. Y. Fire-escape	463,670	Nov. 24	2320	609	57	1024
Shannon, George A., and J. W. Coyne, Ridgetown, Canada. Churn	460,314	Sept. 29	2785	694	56	1632
Shannon, John, Wixom, Mich. Dissolving-shutter for magic lanterns	448,825	Mar. 24	2534	635 636	54	1626
Shannon, Oscar M., assignor to New Era Gas Fuel Appliance Company, Chicago, Ill. Water-beater	451,624	May 5	279	67	55	631
Shannon, Robert F., Medina, N. Y. Cash and parcel carrier	464,482	Dec. 1	728	178	57	1273
Shannon, Thomas, Whitewood, S. D. Amalgamator	458,502	Aug. 25	2578	627 628	56	1042
Shannon, W. B., <i>et al.</i> (See Rogers, George R., assignor.)						
Shannon, William H. (See Howard and Shannon)						
Shannon, William W., <i>et al.</i> (See Kurtz, Henry P., assignor.)						
Shapel, Hooker, assignor of one-third to J. Overmyer and G. W. Moore, Iola, Kans. Ice-cream freezer	459,553	Sept. 15	1595	399 400	56	1390
Shardlow, Ambrose, Sheffield, England. File-cutting machine	449,765	Apr. 7	187	47	55	38
Sharer, George W. (See Callaway, Edward H., assignor.)						
Sharkey, James, Fishville, Mich. Axle-lubricator	444,582	Jan. 13	950	246	54	197
Sharp, Clark E., Lowell, Kans. Automatic stop-motion for knitting-machines	459,659	Sept. 15	1776	447	56	1424
Sharp, Edward P., Boston, Mass. Starting device for electric motors	445,907	Feb. 3	639	157	54	637
Sharp, Edward P., Boston, Mass. Trolley-wire holder	445,908	Feb. 3	641	157 158	54	638
Sharp, Edward P., Boston, Mass. Starting device for electric motors	451,212	Apr. 28	2447	604	55	498
Sharp, Lincoln L., Douglas, Nebr. Grain-meter	453,068	May 26	2630	664	55	1099
Sharp, M., <i>et al.</i> (See Bishman, William, assignor.)						
Sharp, William B., near Donaldsonville, La. Hay-rake	448,145	Mar. 10	1411	361	54	1395
Sharples, David T., Elgin, Ill. Milk-testing apparatus	458,193	Aug. 25	2055	532	56	945
Sharples, David T., Elgin, Ill. Centrifugal milk-testing apparatus	458,194	Aug. 25	2057	533	56	945
Sharples, Philip M., West Chester, Pa. Balancing centrifugal vessels	454,072	June 16	1342	351	55	1420
Sharples, William E., Fall River, Mass. Let-off mechanism for looms	445,383	Jan. 27	2230	578	54	461
Sharples, William E., Fall River, Mass. Race-board and rest-board for looms	448,374	Mar. 17	1818	458	54	1482
Sharpneck Anti-Friction Journal Box Company. (See Sharpneck, William S., assignor.)						
Sharpneck, Eliel L., and J. W. Bailey, Denver, Colo. Pneumatic railway	449,594	Mar. 31	3777	948	54	1867
Sharpneck, William S., assignor to Sharpneck Anti-Friction Journal Box Company, Chicago, Ill. Journal-box	444,509	Jan. 13	838	217 218	54	175
Sharpsteen, William H., Genoa, N. Y. Swathing attachment for harvesters	449,919	Apr. 7	413	103	55	81
Sharsick, Arthur O., St. Louis, Mo. Thread-cutter for thimbles	453,393	June 2	327	85	55	1209
Shattuck, Arthur E., San Francisco, Cal. Adding-machine	453,778	June 9	948	246	55	1335
Shattuck, George H., Medina, N. Y. Cast-iron sink	450,895	Apr. 21	1940	476	55	391
Shattuck, Laforest A., Bloomsburg, Pa. Fountain-pen	450,197	Apr. 14	807	204	55	163
Shattuck, Sidney D., <i>et al.</i> (See Yates, Alexander R., assignor.)						
Shattuck, William P., Minneapolis, Minn. Permutation-lock	451,529	May 5	125	32	55	603
Shattuck, William P., Minneapolis, Minn. Automatic fencing-machine	454,530	June 23	2034	527 528	55	1559
Shaver Corporation. (See Shaver, George F., assignor.)						
Shaver, George F., New York, N. Y., assignor to Shaver Corporation, of New Jersey. Device for inserting branch lines on mechanical-telephone lines	444,461	Jan. 13	756	197	54	158
Shaver, George F., New York, N. Y., assignor to Shaver Corporation, of New Jersey. Mechanical-telephone exchange	444,462	Jan. 13	757	197	54	158
Shaver, George F., New York, N. Y., assignor to Shaver Corporation, of New Jersey. Mechanical-telephone exchange	444,463	Jan. 13	758	198	54	159
Shaver, George F., New York, N. Y., assignor to Shaver Corporation, of New Jersey. Molecular sound-resonator	444,464	Jan. 13	759	198	54	159
Shaver, Oliver P. (See Dickey, Shaver, Stahl, and Welch.)						
Shaw, Alton J. (See Reynolds, Shaw, and Tront.)						
Shaw, Alton J., Milwaukee, Wis. Hoisting machinery	452,619	May 19	1899	477 478	55	949
Shaw, Alton J., Milwaukee, Wis. Electro-magnetic brake	461,052	Oct. 13	787	201	57	158
Shaw, Alton J., Muskegon, Mich. Brake for electric motors	465,999	Dec. 29	3213	818 819	57	1785
Shaw, Benjamin F., Lowell, Mass. Stocking	453,512	June 2	527	135	55	1247
Shaw, Benjamin F., deceased; J. Butler, executor, and assignor to Shaw Stocking Company, Lowell, Mass. Stocking and knitting the same	459,992	Sept. 22	2283	572 573	56	1528
Shaw, Benjamin F., deceased; J. Butler, executor, and assignor to Shaw Stocking Company, Lowell, Mass. Stocking and making the same	460,037	Sept. 22	2344	587 588	56	1540
Shaw, Benjamin F., deceased; J. Butler, executor, and assignor to Shaw Stocking Company, Lowell, Mass. Circular-knitting machine	460,038	Sept. 22	2348	589	56	1541
Shaw, Benjamin F., deceased; J. Butler, executor, and assignor to Shaw Stocking Company, Lowell, Mass. Circular-knitting machine	460,039	Sept. 22	2353	589 590	56	1541
Shaw, Charles A., <i>et al.</i> (See Lowe, Nathaniel M., assignor.)						
Shaw, Charles H., Brooklyn, N. Y. Stamp	447,912	Mar. 10	1056	264	54	1325
Shaw, Charles N., Petoskey, Mich. Butter-cutter	458,195	Aug. 25	2058	533	56	945
Shaw, Edgar, Lynn, Mass., assignor to F. C. Payson, trustee, Portland, Me. Wrench	458,796	Sept. 1	370	90	56	1136
Shaw, Edgar, Lynn, Mass., assignor to F. C. Payson, trustee, Portland, Me. Making wrenches	458,797	Sept. 1	372	90	56	1136
Shaw, Edward S., Cambridge, Mass. Elevated-railway superstructure	453,268	June 2	138	38, 39	55	1174
Shaw, Frank M., Minneapolis, Minn. Grain-cleaner	450,198	Apr. 14	812	204	55	164
Shaw, Frank N. (See Cutler, Charles, assignor.)						
Shaw, Frederick C. (See Sander, Charles, assignor)						
Shaw, George E., Berlin, Wis. Crimping-board	447,119	Feb. 24	2635	654	54	1051
Shaw, George F. (See Shaw, Henry F. and G. F.)						
Shaw, George F., Dedham, assignor of one-half to C. G. and B. F. Smith, Somerville, and G. G. Procter, Boston, Mass. Pipe-wrench	444,255	Jan. 6	440	111	54	86

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Shaw, Henry A., <i>et al.</i> (See Shaw, James B., assignor.)						
Shaw, Henry F., assignor of one-third to S. A. Randall, Boston, Mass. Truck for street-cars.	455,265	June 30	3292	834	55	1804
Shaw, Henry F., Boston, and G. F. Shaw, Dedham, Mass., assignors to F. L. Pope, New York, N. Y. Electric locomotor.	458,729	Sept. 1	276	66	56	1118
Shaw, James B., assignor of two-thirds to H. A. and J. H. Shaw, Philadelphia, Pa. Knitting-needle.	453,513	June 2	528	136	55	1247
Shaw, James T., <i>et al.</i> (See Kurtz, Henry P., assignor.)						
Shaw, John D., and B. F. Atwood, Cadiz, Ky. Rein-holder.	460,664	Oct. 6	207	53	57	43
Shaw, John F., Auburn, N. Y. Fire-escape.	455,364	July 7	101	29	56	23
Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Cylinder-lock.	446,176	Feb. 10	1102	270	54	731
Shaw, John S., Durango, Colo. Pencil-holder.	445,478	Jan. 27	2371	617	54	488
Shaw, Joseph H., <i>et al.</i> (See Shaw, James B., assignor.)						
Shaw, Levi M., Gypsum, Kans., assignor to H. C. Staver, Chicago, Ill. Piston-engine.	455,061	June 30	2961	753	55	1740
Shaw, Linus H., Brockton, Mass. Anti-snoring device.	460,451	Sept. 29	2977	745	56	1668
Shaw, Lorenzo D. B., Coney Island, N. Y. Sliding-hill and carriage to be used therewith.	456,438	July 21	1812	479	56	361
Shaw, Noah. (See Mason, Shaw, and Hopper.)						
Shaw, Noah, Eau Claire, Wis. Friction-clutch.	465,786	Dec. 22	2832	726	57	1704
Shaw Stocking Company. (See Shaw, Benjamin F., assignor.)						
Shaw, Thaxter, Vancleborough, Me. Leather-dressing machine.	449,707	Apr. 7	96	25	55	21
Shaw, Thomas, Philadelphia, Pa. Governor for steam-pumps.	453,671	June 9	775	200	55	1302
Shaw, Thomas, Philadelphia, Pa. Apparatus for purifying water.	457,917	Aug. 18	1631	427	56	856
Shaw, Thomas, Philadelphia, Pa. Apparatus for testing mine-gases.	460,683	Oct. 6	240	59, 60	57	49
Shaw, William, New York, N. Y. Apparatus for printing carpet-yarns.	446,299	Feb. 10	1324	323	54	774
Shaw, William F., assignor to himself and H. E. Chute, Yarmouth, Canada. Music-holder.	458,074	Aug. 18	1872	468	56	903
Shaw, William H., <i>et al.</i> (See Swartz, William P., assignor.)						
Shawhan, Jabea F., Dayton, Ohio, assignor, by mesne assignments, to F. B. Dickerson, Detroit, Mich. Electric street-car motor.	453,216	June 2	53	14, 15	55	1158
Shay, John H. (See Hinman, Wilbur S., assignor.)						
Shea, Albert, assignor to J. Keece, Boston, Mass. Button-hole piece.	463,344	Nov. 17	1792	469	57	914
Shea, John C., Norfolk, Conn. Method of and die for making crank-axes.	454,073	June 16	1345	351	55	1420
Shea, John C., Norfolk, Conn. Governor for hydrocarbon-burners.	461,053	Oct. 13	789	201	57	159
Shea, William J., Hartford, Conn. Printing-press.	464,110	Dec. 1	155	38	57	1167
Shea, William J., and C. Birkery, Hartford, Conn. Wrench.	444,111	Jan. 6	211	50	54	43
Sheafor, Jacob J. (See Scott and Sheafor.)						
Shearer, Charles J. W., Cartersburg, Ind. Steam-pipe coupling.	450,661	July 28	2176	576	56	441
Shearer, David F. (See Burkholder and Clark, assignors.)						
Shearer, Wells H., Arkansas City, Kans. Paint.	464,336	Dec. 1	519		57	1233
Sheargren, John, Burlington, Iowa. Meat-chopping machine.	445,823	Feb. 3	521	125	54	613
Sheasley, Jacob, <i>et al.</i> (See Lafferty, Erasmus S., assignor.)						
Shedden, George W., Eureka, Kans. Registering attachment for job-printing presses.	456,439	July 21	1813	480	56	362
Sheddy, James H., <i>et al.</i> (See Green, John, assignor.)						
Shedlock, Alfred, Jersey City, N. J. Spray-lamp.	457,375	Aug. 11	761	196	56	681
Shedlock, Alfred, Jersey City, N. J. Wickless oil-lamp.	458,814	Sept. 1	396	95, 96	56	1141
Sheehan, Michael L., New York, N. Y. Watch-maker's roller-remover.	453,920	June 9	1128	295	55	1371
Sheehan, Michael T., Delavan, Ill. Railway-crossing gate.	465,032	Dec. 15	1619	412	57	1463
Sheehan, Owen, New Bedford, Mass. Hump-cleaner.	453,945	June 9	1162	303	55	1378
Sheehy, Robert J., New York, N. Y. Motor apparatus for vehicles.	458,274	Aug. 25	2213	542	56	974
Sheen, Daniel R., Peoria, Ill. Manual motor.	452,085	May 12	1031	261	55	776
Sheerer, E. P., <i>et al.</i> (See Edey, Charles E. C., assignor.)						
Sheets, Benjamin F., Muskegon, Mich. Saw-sharpening machine.	460,452	Sept. 29	2978	745	56	1668
Sheets, Nial R., Dighton, Kans. Live-stock releaser.	447,979	Mar. 10	1170	297	54	1346
Sheets, Nial R., Dighton, Kans. Bonquet-holder.	455,928	July 14	1013	264	56	202
Sheets, Nial R., Dighton, Kans. Picture-exhibitor.	464,901	Dec. 8	1368	344	57	1405
Sheets, Samuel, Ashland, Ohio. Revolving harrow.	454,188	June 16	1511	397	55	1452
Sheffard, Charles, Clearwater, Nebr. Kettle-tilter.	456,662	July 28	2177	577	56	441
Sheffield, George S., Bronson, Mich. Corn-planter.	461,054	Oct. 13	790	201	57	159
Sheffield, John A., Buena Vista, Tenn. Trace-carrier.	461,284	Oct. 13	1143	291	57	228
Sheffield, Lucius T., New York, N. Y., and T. M. Sinclair, Newark, N. J. Machine for ornamenting tubular receptacles.	448,678	Mar. 24	2304	578	54	1582
Shelby, Christopher C., Paterson, N. J. Hose-supporter.	448,768	Mar. 24	2456	614	54	1611
Shelby, Christopher C., Paterson, N. J. Buckle.	455,642	July 7	556	144	56	108
Shelby, Christopher C., Paterson, N. J. Garment-clasp.	455,643	July 7	558	145	56	108
Sheldon Axle Company. (See Hill, Leroy D., assignor.)						
Sheldon Axle Company. (See Hugs, Nicholas P. H., assignor.)						
Sheldon, Charles L. (See Hugs, Nicholas P., assignor.)						
Sheldou, Frank, <i>et al.</i> (See Vincent, George P., assignor.)						
Sheldon, James B., and D. J. Murnane, St. Louis, Mo., assignor to Underground Electric Traction Company, of Missouri. Electric railway.	462,595	Nov. 3	589	145	57	664
Sheldou, John. (See Nettlefold and Sheldou.)						
Sheldou, John, G. B. Lukin, and H. F. Baker, Birmingham, England. Tire for vehicle-wheels.	456,779	July 28	2378	625	56	478
Sheldou, Mark A., Detroit, Mich. Tack-puller.	466,066	Dec. 29	3317	847	57	1807
Shell, John E., Monticello, Ark. Wrench.	465,542	Dec. 22	2468	629	57	1633
Shellabarger, Charles D. (See Richardson, Lewis C., assignor.)						
Shellabarger, Charles D., Indianapolis, Ind. Fence.	444,170	Jan. 6	317	76	54	61
Shellabarger, Joshua, Rockford, Ohio. Flood-gate.	457,623	Aug. 11	1143	292	56	755
Shellabarger, Michael M., Beaver Falls, Pa. Wire fence.	452,620	May 19	1902	478	55	949
Shellabarger, Michael M., Beaver Falls, Pa. Visible strip for wire fences.	465,391	Dec. 15	2215	568	57	1575
Shellenback, Peter. (See Henley and Shellenback.)						
Shellenberger, Samuel L., South McAlester, Indian Ter. Stock-guard for railways.	446,793	Feb. 17	2084	519	54	939
Sheller, Frank, Cherokee, Iowa. Feed-trough.	465,083	Dec. 15	1621	412	57	1464
Sheller, Monroe, Perrinton, Mich. Straw-conveyer.	453,806	May 26	2198	552	55	1016
Shelley, James H., Brooklyn, N. Y. Dust-separator.	465,544	Dec. 22	2472	630	57	1634
Shelley, James H., assignor to himself and J. G. Buehler, Brooklyn, N. Y. Dust and flour separator.	465,543	Dec. 22	2470	629	57	1633
Shelman, William M. (See Merry and Shelman.)						
Shelton, Thomas W., Cleveland, Ohio. Oil-filter.	453,075	Aug. 18	1874	488	56	904
Shely, Alda M., <i>et al.</i> (See Shely, John D. and J. H., assignors.)						
Shely, John D. and J. H., assignors to themselves, R. C. Morgan, W. A. and A. M. Shely, Lexington, Ky. Hemp brake and cleaner.	451,438	Apr. 28	2794	691	55	566

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Shely, John H. (See Shely, John D. and J. H.)						
Shely, William A., <i>et al.</i> (See Shely, John D. and J. H., assignors.)						
Shempp, William, Williamsport, Pa. Letter-box	454,298	June 16	1672	438	55	1484
Shengle, John B., assignor to McAllister & Dall, Cleveland, Ohio. Doweling-machine	446,954	Feb. 24	2361	587	54	998
Shenk, John J., Burkittsville, Md. Newspaper-file	466,143	Dec. 29	3440	588	57	1831
Shepard Brothers. (See Shepard, James, assignor.)						
Shenton, Francis, Slatington, Pa. Slate-chamfering machine	451,778	May 5	513	126	55	675
Shepard, George B., Ogdensburg, N. Y. Puzzle game apparatus	449,708	Apr. 7	98	127	55	21
Shepard, George L., North Adams, Mass. Shoe	449,389	Mar. 31	3452	869	54	1806
Shepard, Huldah A., Nelsonville, Ohio. Combined steam-cooker and dish-washer	457,224	Aug. 4	460	121	56	619
Shepard, James, assignor to Shepard Brothers, San Francisco, Cal. Extension-joint for animals	465,566	Dec. 22	2504	639	57	1640
Shepard, Julius D., Akron, Ohio. Cut-off for conductors	451,779	May 5	515	127	55	676
Shepard, Thomas, Kansas City, Mo. Saw-set	458,275	Aug. 25	2215	543	56	974
Shepard, Walter J., Buffalo, N. Y. Ice-cream freezer	448,375	Mar. 17	1819	458	54	1483
Shepard, Wilbur L., West Hartford, Conn. Back-pressure valve	455,853	July 14	901	236	56	181
Shepard, Wilbur L., Hartford, Conn. Swinging-pipe joint	462,232	Oct. 27	2716	684	57	542
Shepardson, Albert F., assignor of one-half to F. Cranska, Moosup, Conn. Stopping mechanism for lap-machines	458,133	Aug. 18	1959	508	56	920
Shepherd, Richard. (See Bateman, George C., assignor.)						
Shepherd, Francis J., Concord, Wis. Horse-detacher	446,649	Feb. 17	1866	463	54	895
Shepherd, Francis J., Concord, Wis. Horse-attaching device	457,568	Aug. 11	1080	271	56	739
Shepherd, Percival W., Fostoria, Ohio. Signal-torch	462,596	Nov. 3	592	146	57	665
Shepherd, Isaac N. (See Brock, Arthur W., assignor.)						
Shepler, William H., Peoria, Ill. Lever and crank mechanism	461,055	Oct. 13	791	201	57	159
Shepley, Granville T., Townsend, Mass. Nail	451,213	Apr. 28	2448	605	55	498
Sheppard, Henry B., <i>et al.</i> (See Pepper, Thomas, assignor.)						
Shepperd, Sylvanus D., assignor to Backus Water Motor Company, Newark, N. J. Clutch for rotary fans	449,888	Apr. 7	364	92	55	72
Sheppman, John, Philadelphia, Pa. Table-cutlery	462,068	Oct. 27	2464	610	57	494
Shera, William H., College Corner, Ohio. Tellurian	446,032	Feb. 10	832	200	54	682
Sheridan, Charles B., <i>et al.</i> (See Ely, Charles R., assignor.)						
Sheridan, Charles B., <i>et al.</i> (See Malm, Alexander, assignor.)						
Sheridan, James E., Fulton, N. Y. Screw-press	457,225	Aug. 4	461	121	56	619
Sheridan, Philip L. (See Brand and Sheridan.)						
Sheridan, T. W. & C. B. (See Malm, Alexander, assignor.)						
Sheridan, Theodore W., <i>et al.</i> (See Ely, Charles R., assignor.)						
Sheridan, Theodore W., <i>et al.</i> (See Malm, Alexander, assignor.)						
Sheridan, Thomas F., Springfield, Ill. Machine for enameeling small dials	448,734	Mar. 24	2400	600	54	1600
Sheridon, William, Toledo, Ohio. Wagon running-gear	464,735	Dec. 8	1130	280	57	1359
Sherk, Thomas, Fredonia, Kans. Wrench	459,241	Sept. 8	1000	266	56	1284
Sherlock, Edward, and J. McIntyre, Boston, Mass. Projectile	459,417	Sept. 15	1380	346	56	1350
Sherlock, Jonathan, Milton, Mass. Hanger for wringing-machines	457,523	Aug. 11	986	252	56	724
Sherlock, Robert E., Lethbridge, and M. Freeman, Grenfell, Canada. Show-cabinet	454,775	June 23	2422	622	55	1632
Sherman, Albert A., Plymouth, Mass. Umbrella-bracket	444,769	Jan. 13	1241	322	54	251
Sherman, Chaucey A., Norwich, assignor to W. H. Watrous, Hartford, Conn. Fruit-knife	457,376	Aug. 11	764	196	56	682
Sherman, Dwight E. (See Taylor and Sherman.)						
Sherman, Dwight E., Springfield, Mass. Car-replacer	456,780	July 28	2381	626	56	478
Sherman, Gardner M., Springfield, Mass. Vaporizer	444,319	Jan. 6	530	138	54	106
Sherman, George C., assignor to M. L. Sherman, Alfred, N. Y. Addressing-machine	447,980	Mar. 10	1171	297	54	1346
Sherman, Jefferson M., Brimston, N. Y. Machine for turning spoke-tenons	458,276	Aug. 25	2216	543	56	914
Sherman, John, assignor of one-half to L. Smith, Cleveland, Ohio. Gear-cutting machine	464,233	Dec. 1	357	86	57	1201
Sherman, John A. (See Dennis, Metcalfe, and Sherman.)						
Sherman, Martha L. (See Sherman, George C., assignor.)						
Sherman, Walter N., Merced, Cal. Electrical pessary	454,573	June 23	2099	542	55	1571
Sherman, Willis D., assignor to Union Hydraulic Drain Tile Company, Omaha, Nebr. Core for drain-tile molds	461,453	Oct. 20	1430	361	57	291
Sherman, Willis D., assignor to Union Hydraulic Drain Tile Company, Omaha, Nebr. Truck	461,689	Oct. 20	1864	462	57	371
Sherman, Willis D., assignor to Union Hydraulic Drain Tile Company, Omaha, Nebr. Sewer-pipe machine	462,087	Oct. 27	2487	617	57	499
Sherman, Willis D., assignor to Union Hydraulic Drain Tile Company, Omaha, Nebr. Sewer-pipe and drain-tile machine	462,597	Nov. 3	593	146	57	665
Sherrod, Rufus M., assignor to W. W. Sherrod, Bell's Depot, Tenn. Plow-colter fastening	464,525	Dec. 8	805	197	57	1298
Sherrod, William W. (See Sherrod, Rufus M., assignor.)						
Sherwin, George D., Burlington, Vt. Baggage-slide for railway-cars	456,601	July 28	2074	548	56	420
Sherwood Manufacturing Company. (See Hart, Thomas J., assignor.)						
Shidler, Noah, Louisville, Ohio. Weather-strip	461,922	Oct. 27	2257	558	57	455
Shiek, Daniel W., assignor of one-half to J. H. Conlon, Sterling, Ill. Cash register and indicator	456,912	July 28	2601	684	56	518
Shields, Josephine, Chicago, Ill. Piano-hinge	457,894	Aug. 18	1590	413	56	848
Shields, Thomas L. (See Hine, Charles M., assignor.)						
Shields, Zacharias W., Harrington, Wash. Washing-machine	451,530	May 5	127	32	55	603
Shields, Zacharias W., Harrington, Wash. Gun-lock	456,166	July 21	1362	362	56	278
Shier, John, assignor of one-third to F. Leadbeater, Detroit, Mich. Bicycle	453,514	June 2	529	136	55	1247
Shill, Percy R., East Dulwich, England. Ore-crusher	462,103	Oct. 27	2521	626	57	505
Shilling, Jesse, Jr., Troy, Ohio. Point-band and cap	451,337	Apr. 28	2643	654	55	537
Shilling, Jesse, Jr., Troy, Ohio. Handle-extension	457,797	Aug. 18	1424	369	56	818
Shilling, George, Roann, Ind. Fence-wire stretcher	459,554	Sept. 15	1597	400	56	1391
Shillinglaw, Andrew, Chicago, Ill. Moisture-protection hood for lamps	446,477	Feb. 17	1605	394	54	844
Shimer, Elmer S., Milton, Pa. Type-writing machine	461,988	Oct. 27	2351	583	57	473
Shimer, Elmer S., Milton, Pa. Type-writing machine	462,019	Oct. 27	2393	593	57	481
Shimer, George S., Milton, Pa. Machine for making metal washers	456,440	July 21	1814	480	56	362
Shimer, George S., Milton, Pa. Machine for making metal washers	456,441	July 21	1816	480	56	362
Shimer, Samuel J., Milton, Pa. Cutter-head for wood-working machines	451,311	Apr. 28	2606	643	55	530
Shimer, Samuel J., Milton, Pa. Cutter-head	463,555	Nov. 17	2122	560	57	978
Shingleton, William, London, England. Riding-habit	444,942	Jan. 20	1565	401	54	321

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Shinn, George M., Newton, Mass. House-door letter-box	448,086	Mar. 10	1326	{ 339 340 }	54	1378
Shinn, John, Roxborough, assignor of one-half to W. C. Snyder, Ashbourne, Pa. Door-check	444,730	Jan. 13	1179	304	54	239
Shinn, John M. (See Smith, George W., assignor.)						
Shipe, Walter S., Toronto, Canada. Cylindrical boiler	453,946	June 9	1163	304	55	1378
Shipley, Alfred J., assignor to Scovill Manufacturing Company, Waterbury, Conn. Button	465,680	Dec. 22	2682	684	57	1674
Shipman, Madison D., <i>et al.</i> (See Pringle, Eugene, assignor.)						
Shipman, Madison D., De Kalb, Ill. Glove-fastening	447,309	Mar. 3	152	41	54	1146
Shippee, Aaron B., assignor to A. W. Chapman, Providence, R. I. Twist-drill	445,392	Dec. 15	2217	568	57	1575
Shippee, Charles W., Milford, Mass. Folding-machine	463,170	Nov. 17	1518	{ 394 395 }	57	862
Shippee, Charles W., Milford, Mass. Machine for folding textile or other material	463,171	Nov. 17	1520	395	57	862
Shippy, Louis E., Sandy Hill, N. Y. Halter	444,993	Jan. 20	1642	421	54	337
Shiring, Joseph L., Allegheny, assignor to R. and J. Wellens and T. Moroney, Pittsburg, Pa. Hydraulic beer-pump	444,994	Jan. 20	1644	421	54	337
Shirley, John W. (See Jones, Tilford J., assignor.)						
Shive, Milton, Pattenburg, N. J. Wagon-brake	457,548	Aug. 11	1027	264	56	732
Shively, W. J., <i>et al.</i> (See Miller, Frank, assignor.)						
Shivers, David L., Camden, N. J. Gage for lead or rule cutters	459,593	Sept. 15	1662	415	56	1403
Shivler, Howard C., Brooklyn, N. Y. Annunciator-drop	452,585	May 19	1849	4 5	55	938
Shlaudeman, Frank, Decatur, Ill. Water-proof combined coupling and cut-out for electric circuits	448,679	Mar. 24	2306	578	54	1582
Shlaudeman, Frank, Decatur, Ill. Connector for electric wires	448,680	Mar. 24	2307	579	54	1583
Shoefelt, Samuel, and J. Mayor, Cornwall, Ontario, Canada. Screen for carding-machines	461,595	Oct. 20	1713	419	57	342
Shoemaker, James M., Maggart, Tenn. Stump-extractor	458,696	Sept. 1	233	55	56	1110
Shoemaker, Wesley. (See Coffin and Shoemaker.)						
Shoemaker, Charles F., Allegheny, Pa. Machine for shaping springs	453,779	June 9	951	{ 246 247 }	55	1336
Shoemaker, Milton, assignor of two-thirds to J. W. Martin, Sioux City, Iowa, and J. Passmore, Duncannon, Pa. Electric-railway system	457,870	Aug. 18	1545	{ 401 402 }	56	841
Shoemaker, Robert J., Philadelphia, Pa. Traveling grate	465,295	Dec. 15	2052	524	57	1543
Shoenberger, John L., Pittsburg, Pa. Car-coupling	452,807	May 26	2201	553	55	1017
Sholes, Christopher L., deceased, Milwaukee, Wis.; G. B. Sholes, executor. Type-writing machine	464,902	Dec. 8	1370	344	57	1406
Sholes, Christopher L., deceased; G. B. Sholes, Chicago, Ill., executor. Type-writing machine	464,903	Dec. 8	1372	345	57	1406
Sholes, George B., executor. (See Sholes, Christopher L.)						
Sholes, Henry. (See Huff, Charles D., assignor.)						
Sholl, Raymond P., Peoria, Ill. Self-tilting car-axle	455,841	July 14	888	233	56	179
Sholl, Raymond P., Bartonville, Ill. Support for garments	456,969	Aug. 4	71	17	56	547
Sholl, William H., Hobart, Ind. Whiffetree	446,156	Feb. 10	1061	261	54	724
Sholl, William H., Hobart, Ind. Neck-yoke	455,582	July 7	464	121	56	90
Shoninger, William S., <i>et al.</i> (See Van Dusen, Charles, assignor.)						
Shontz, Neri E., Chicago, Ill. Boiler-purge feeder	445,909	Feb. 3	642	158	54	638
Shoolridge, Godfrey C. (See Gard and Shoolridge.)						
Shorb, J. De Barth. (See Buchanan, Luther H., assignor.)						
Shorey, George L., Lynn, Mass. Heat-regulating apparatus	446,212	Feb. 10	1161	{ 284 285 }	54	741
Shorey, George L., Lynn, Mass. Draft-regulating and fire-checking device	460,995	Oct. 13	705	182	57	144
Shorey, George L., Lynn, Mass. Heat-regulating apparatus	460,996	Oct. 13	706	{ 182 183 }	57	144
Short, Charles G., St. Louis, Mo. Warming and ventilating rooms	464,830	Dec. 8	1268	317	57	1386
Short, Charles G. and R. L., St. Louis, Mo.; said R. L. Short assignor to said Charles G. Short. Mixing-valve for continuous ventilation	464,945	Dec. 8	1436	361	57	1420
Short Electric Railway Company. (See Seymour, Henry A., assignor.)						
Short Electric Railway Company. (See Short, Sidney H., assignor.)						
Short, George W. (See Brown and Short.)						
Short, Robert L. (See Short, Charles G. and R. L.)						
Short, Sidney H., Cleveland, Ohio. Operating mechanism for current-regulators	456,253	July 21	1507	400	56	305
Short, Sidney H., Cleveland, Ohio. Switch for electric-car motors	456,254	July 21	1508	400	56	305
Short, Sidney H., Cleveland, Ohio. Rheostat for electric-motor cars	459,690	Sept. 15	1817	456	56	1433
Short, Sidney H., Cleveland, Ohio. Rheostat for electric-motor cars	459,794	Sept. 22	1979	498	56	1469
Short, Sidney H., Cleveland, Ohio. Conductor-fastening for commutators	459,820	Sept. 22	2026	508	56	1479
Short, Sidney H., Cleveland, Ohio. Commutator	462,880	Nov. 10	1052	273	57	763
Short, Sidney H., Cleveland, Ohio. Armature for dynamo-electric generators	462,881	Nov. 10	1053	273	57	763
Short, Sidney H., Cleveland, Ohio. Armature for dynamo-electric machines	462,882	Nov. 10	1054	273	57	761
Short, Sidney H., Cleveland, Ohio. Brush-holder for dynamo-electric machines	462,883	Nov. 10	1055	274	57	764
Short, Sidney H., Cleveland, Ohio. Electric locomotive	463,356	Nov. 17	1812	{ 473 474 }	57	918
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Electric connection for track-wiring	445,479	Jan. 27	2372	617	54	428
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Regulator for electrically-propelled vehicles	445,654	Feb. 3	222	60	54	555
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Coupling for the trolley-wires of electric railways	445,841	Feb. 3	545	133	54	618
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Trolley for electric railways	446,931	Feb. 24	2333	579	54	993
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Cross-over for trolley-lines	447,208	Feb. 24	2810	695	54	1083
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Turn-out and crossing for line-conductors	447,495	Mar. 3	385	94	54	1190
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Driving mechanism for dynamo-electric generators	448,303	Mar. 17	1703	431	54	1461
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Speed-regulator for electric motors	448,681	Mar. 24	2308	579	54	1583
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Adjustable rheostat	448,682	Mar. 24	2310	579	54	1583
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Protecting motor mechanism of electric cars	448,840	Mar. 24	2558	642	54	1630
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Propelling mechanism for electric-motor cars	449,709	Apr. 7	99	26	55	22
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Trolley or traveler for electric railways	450,683	Apr. 21	1614	387	55	231

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Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Electrically-propelled car	451,980	May 12	828	212	55	743
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Mounting for electric-car motors	451,981	May 12	831	{ 212 213 }	55	744
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Driving mechanism for electric-motor cars	452,005	May 12	871	222	55	751
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Motor-car for electric railways	452,035	May 12	924	{ 236 237 }	55	761
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Machine for propelling electric cars	452,036	May 12	928	{ 237 238 }	55	762
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Motor mounting for electric cars	452,621	May 19	1903	478	55	949
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Electric-railway car	452,622	May 19	1905	479	55	950
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Supporting and connecting the driving-motors of electric cars	454,008	June 9	1250	{ 325 326 }	55	1395
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Connector and support for trolley-wires	456,252	July 21	1504	400	56	304
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Car propelled by electricity	456,970	Aug. 4	72	17, 18	56	547
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Trolley for electric railways	457,015	Aug. 4	127	31	56	558
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Brush-holder for dynamo-electric machines	457,226	Aug. 4	462	121	56	620
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Trolley for electric railways	457,377	Aug. 11	765	196	56	682
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Trolley	457,378	Aug. 11	766	197	56	682
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Automatic cut-out for dynamo-electric machines	458,666	Sept. 1	187	44	56	1101
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Controlling dynamo-electric machines for electric railways	458,956	Sept. 1	631	155	56	1188
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Mounting for motors of electric cars	459,024	Sept. 8	752	182	56	1219
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Slide-shoe trolley	459,689	Sept. 15	1816	456	56	1432
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Motor mechanism for electric cars	460,040	Sept. 22	2358	590	56	1542
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. Electric railway	461,690	Oct. 20	1864	462	57	371
Short, Sidney H., assignor to Short Electric Railway Company, Cleveland, Ohio. System of distribution for electric railways	461,851	Oct. 27	2129	525	57	429
Short, Thomas A., Edgerton, S. D. Check-punch	446,478	Feb. 17	1606	394	54	844
Short, Christopher M. (See Burr and Hankins, assignors.)						
Shortt, Edward G., Carthage, N. Y. Rod-packing	447,261	Feb. 24	2900	720	54	1101
Shortt, Edward G., Carthage, assignor of one-half to C. G. Emery, Brooklyn, N. Y. Water-tube for steam-boilers	447,209	Feb. 24	2812	696	54	1083
Shoudy, Belle E. (See Shoudy, Israel, Jr., assignor.)						
Shoudy, Israel, Jr., assignor of one-half to B. B. Shoudy, Rockford, Ill. Power-converter	455,009	June 30	2873	730	55	1733
Shoup, Edward, and G. F. Trudeau, Toledo, Ohio. Automatic switch for railways	461,056	Oct. 13	792	202	57	159
Shoup, Oscar W. (See Kuittel, Andrew W., assignor.)						
Shover, Barton R., and W. C. Dickson, Indianapolis, Ind. Electric railway	461,057	Oct. 13	794	203	57	160
Shrauger, Dice E., and W. Fulton, Exira, Iowa. Automatic regulator for windmills	459,795	Sept. 22	1981	499	56	1470
Shriver, Harry T., New York, N. Y. Anti-friction bearing	459,877	Sept. 22	2117	531	56	1498
Shreve, Ephraim G., Long Branch, N. J. Reel or swift	445,414	Jan. 27	2280	592	54	471
Shubert, Harold C., Chicago, Ill., assignor of one-third to W. B. Martindale, Kenosha, Wis. Ammeter or voltmeter	449,766	Apr. 7	189	47	55	38
Shuey, William F., Swoope, Va. Cutting mechanism for mowing-machines	450,499	Apr. 14	1297	318	55	255
Shugert, Ninnian I., et al. (See Finley, Norval H., assignor.)						
Shuler, Andrew F., Arcanum, Ohio. Hub	444,105	Jan. 6	197	48	54	41
Shull, Joseph C., assignor of one-half to A. H. Jones, Meriden, Conn. Hose-coupling	444,676	Jan. 13	1089	282	54	223
Shults, Chancy C., Winterset, Iowa. Cutter-bar	457,379	Aug. 11	767	197	56	683
Shultz, Henry C., Hamlet, Ind. Axle	463,797	Nov. 24	2508	655	57	1060
Shuman, Charles, St. Louis, Mo. Filter	458,667	Sept. 1	188	44	56	1101
Shuman, Grant W., Lake Station, Ind. Clock striking mechanism	454,299	June 16	1674	439	55	1484
Shumway, Moses A. (See Williams, Isaac T., assignor.)						
Shunk, John Q. (See Shunk, Nelson F. and J. Q.)						
Shunk, Nelson F. and J. Q., Bucyrus, Ohio. Sewer-inlet	459,259	Sept. 8	1114	272	56	1289
Shurmon, James D., Paint Rock, Tex. Rein-holder	447,981	Mar. 10	1176	298	54	1347
Shurtleff, Asahel M., Boston, Mass. Atomizer	447,064	Feb. 24	2555	634	54	1035
Shurtleff, Asahel M., Boston, Mass. Atomizer	451,078	Apr. 28	2218	549	55	454
Shurtleff, Asahel M., Boston, Mass. Atomizer	451,079	Apr. 28	2218	549	55	455
Shute, William, et al. (See Mitchell, Albion L. F., assignor.)						
Shuttleworth, Charles H., assignor of one-half to F. F. Hoyer, Corunna, Mich. Car-coupling	448,304	Mar. 17	1705	432	54	1461
Shutts, Harlan P. (See Ricks and Shaft, assignors.)						
Shutts, Harlan P., et al. (See Shaft, Henry S., assignor.)						
Sibley, Albert P., and G. O. Ware, South Bend, Ind. Drilling-machine	462,884	Nov. 10	1057	274	57	764
Sibley, Dennis E., Chicago, Ill. Machine for scouring grain	447,370	Mar. 3	153	42	54	1147
Sibley, Dennis E., Chicago, Ill. Grain-scouring machine	457,380	Aug. 11	768	197	56	683
Sibley, Stephen J. (See Tyrrel, Alvin D., assignor.)						
Sickels, Frederick E., Kansas City, Mo. Steam and hand steering-gear	444,024	Jan. 6	65	17	54	16
Sickly, Martin V. (See Butt, Charles A., assignor.)						
Siddall, Archibald, Ryde, assignor of one-half to E. J. Tobin, Sydney, New South Wales. Picture-hanger	445,942	Feb. 3	697	170	54	649
Side, Edgar, assignor to E. M. Goldsmith, Philadelphia, Pa. Coin holder	463,256	Nov. 17	1648	429	57	888
Sidebottom, William R., Stockport, England. Spindle and bobbin for spinning and doubling machines	458,431	Aug. 25	2461	599	56	1021
Sidman, George D., Washington, D. C. Letter-box	449,865	Apr. 7	335	86	55	67
Siebeck, William H., San Francisco, Cal. Car-truck	458,759	Sept. 1	319	77, 78	56	1126
Siebel, Adolph, Saginaw, Mich. Apparatus for crystallizing candles	456,293	July 21	1574	416	56	318
Siebel, John, Oskaloosa, Iowa. Pruning implement	445,480	Jan. 27	2374	618	54	488
Siebel, John, Oskaloosa, Iowa. Horse-arrester	463,000	Nov. 10	1236	322	57	799
Sieber, George W., et al. (See Fetherson, Joseph S., assignor.)						
Siebert, Alfred, New York, N. Y., assignor to De La Vergne Bottle and Seal Company, of New Jersey. Corking-machine	461,285	Oct. 13	1144	292	57	228

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Siebold, Crist. (See Rastetter and Siebold.)						
Siegel, Ferdinand. (See Miles, Samuel J., assignor.)						
Siegley, Jacob, Wilkes-Barré, Pa. Bench-plane	446,194	Feb. 10	1126	276	54	734
Siegrist, Edward, Hurley, Wis. Heel plate and brace	452,853	May 26	2270	569	55	1030
Siemang, Stefan, Vienna, Austria-Hungary. Casting armor-plates	450,776	Apr. 21	1749	424	55	357
Siemang, Stefan, and L. Guttman, Vienna, Austria-Hungary. Hermetical cover with cleansing apparatus for closets, &c.	455,975	July 14	1084	284	56	214
Siemens, Alexander, <i>et al.</i> (See Biedermann and Harvey, assignors.)						
Siemens, Frederick, <i>et al.</i> (See Biedermann and Harvey, assignors.)						
Siemens, Frederick, Dresden, Germany. Regenerative gas-lamp	452,808	May 26	2205	553	55	1018
Siemens & Halske. (See Erlwein, Georg, assignor.)						
Siemens & Halske. (See Erlwein and Heller, assignors.)						
Siemens & Halske. (See Heller, Friedrich G. A., assignor.)						
Siemens & Halske. (See Siemens, Werner von, assignor.)						
Siemens, Werner von, assignor to Siemens & Halske, Berlin, Germany. Apparatus for extracting metals from their ores	452,125	May 12	1102	281	55	789
Siemens, Werner von, assignor to Siemens & Halske, Berlin, Germany. Apparatus for electrically separating metals from ores	460,354	Sept. 29	2853	710 711	56	1645
Sievert, Paul, Deuben, Germany. Dissolving water-glass	445,091	Jan. 20	1785		54	365
Sigelen, Christian A., New Brighton, Pa. Lamp	451,338	Apr. 28	2645	654	55	537
Sigelen, Christian A., New Brighton, Pa. Inkstand	464,831	Dec. 8	1269	318	57	1386
Sigle, Thomas E., Buyerstown, and A. R. Wenger, West Earl, Pa. Adjustable axle-nut	459,842	Sept. 22	2057	517	56	1486
Sigmond, Akos von, and R. Genge, Klausenburg, Austria-Hungary. Making yeast	461,774	Oct. 20	2007		57	398
Sign Supply Company. (See Buxton, Charles H., assignor.)						
Sigsbee, Charles D., U. S. Navy, T. S. Hayward and F. S. Anderson, Easton, Md.; said Anderson and Hayward assignors to said Sigsbee. Electric-current regulator or rheostat	454,969	June 30	2784	710	55	1706
Sigsbee, John L., Canajoharie, N. Y. Device for cutting disks and washers	457,227	Aug. 4	463	122	56	620
Silber, Arnold, Berlin, Germany. Umbrella	459,025	Sept. 8	755	182	56	1220
Silberman, Samuel J., New York, N. Y. Memorandum copy-book	464,394	Dec. 1	602	148	57	1248
Silkman, Edward J., assignor of two-thirds to G. D. Penniman and T. K. Wortington, Baltimore, Md. Electric type-writing machine	448,271	Mar. 17	1633	416 417 418	54	1447
Silkman, Eliza. (See Silkman, Frank W., assignor.)						
Silkman, Frank W., assignor to E. Silkman, New York, N. Y. Vending-machine	454,407	June 16	1845	482	55	1515
Sill, Cyrus B., Youngstown, Ohio. Metal lathing	462,333	Nov. 3	179	46	57	585
Sill, Joseph M., assignor of one-half to G. A. Dayton, Towanda, Pa. Truck	451,780	May 5	516	127	55	676
Silleck, Charles D., Brooklyn, assignor to J. Boyle & Co., New York, N. Y. Mail or express bag	453,404	June 2	347	90	55	1213
Sillman, John B., La Porte, Ind. Mechanical motor	462,817	Nov. 10	950	247	57	744
Sillman, Robert F., Troy, N. Y. Lawn-weeder	457,871	Aug. 18	1548	402	56	841
Silsbee, Joseph L., Chicago, Ill. Railway construction	458,196	Aug. 25	2059	533 534	56	946
Silsby, Harvey H., La Cygne, Kans. Device for holding hogs' snouts	460,222	Sept. 29	2637	658	56	1604
Silver, William J., Salt Lake City, Utah Ter. Crossing for electric-railway conductors	463,310	Nov. 17	1733	453	57	904
Silvera, Herbert A., New York, N. Y. Indexed book	447,371	Mar. 3	154	42	54	1147
Silverberg, Isaac L. (See Troxler, Gustavus, Jr., assignor.)						
Silverman, I. H. (See Stern, William A., assignor.)						
Silvernail, Alpheus L., Ionia, Mich. Geographical globe	452,291	May 12	1361	339	55	839
Silverstein, Isidor, and M. Savelson, New York, N. Y. Fan-motor	453,921	June 9	1129	295 296	55	1371
Silverthorn, William H., Cleveland, Ohio. Car-wheel	448,683	Mar. 24	2314	580	54	1584
Silverthorn, William H., Cleveland, Ohio. Lifting-jack	455,124	June 30	3071	781	55	1762
Silvester, Clarence and W. Windom, Kans. Windmill-regulator	446,637	Feb. 17	1825	451	54	886
Silvester, Winfred. (See Silvester, Clarence and W.)						
Silvey, Catharine P., <i>et al.</i> (See Silvey, William L., assignor.)						
Silvey, Mary, <i>et al.</i> (See Silvey, William L., assignor.)						
Silvey, Frank, <i>et al.</i> (See Silvey, William L., assignor.)						
Silvey, William L., Lima, Ohio. Automatic electric-circuit switch	457,483	Aug. 11	933	237	56	713
Silvey, William L., Lima, Ohio. Automatic regulator for dynamo-electric machines	462,030	Oct. 27	2397	595	57	481
Silvey, William L., Lima, Ohio, assignor to C. P. and F. Silvey, Castleton, Ind., and M. Silvey, Dayton, Ohio. Secondary battery	459,535	Sept. 15	1562	390	56	1384
Simmonds, Francis N., San Francisco, Cal. Punch	458,076	Aug. 18	1875	488	56	904
Simmonds, William, and C. Linegar, Yonkers, N. Y. Hat-sizing machine	463,339	Nov. 17	1781	467	57	912
Simmons, Charles. (See Llewellyn and Simmons.)						
Simmons Hardware Company. (See Wightman, David H., assignor.)						
Simmons, Henry T., Bloomington, Ind. Cord-receptacle	447,913	Mar. 10	1058	265	54	1325
Simmons, James L., Washington, D. C. Turning-lathe	444,465	Jan. 13	760	198	54	159
Simmons, Marcus S. (See Angus, Simmons and Nangle.)						
Simmons, Marcus S., <i>et al.</i> (See Poe and Angus, assignors.)						
Simmons, Marcus S., and C. Angus, assignors of one-third to J. R. Nangle, Albany, N. Y. Venetian blind	455,912	July 14	989	252	56	198
Simmons, Sydney, and J. Tullidge, London, England. Carpet-cleaner	457,674	Aug. 11	1217	313	56	769
Simmons, Thomas H. (See Ives, Simmons, and Baldwin.)						
Simmons, William H., Syracuse, N. Y. Hame	461,852	Oct. 27	2130	525	57	430
Simmons, Zalmun G. (See Butler and Simmons.)						
Simms, Lucy A. (See Callahan, Owen P., assignor.)						
Simon, Charles F., Bristol, R. I. Manufacturing hose	459,536	Sept. 15	1563	390	56	1385
Simon, George, New Iberia, La. Housing for cane-mills	462,169	Oct. 27	2623	654	57	525
Simon, Jacob J., McDonaldsville, Ohio. Seed-planter	445,205	Jan. 27	1976	511	54	410
Simon, Morris, assignor of one-fourth to L. Meisler, South Norwalk, Conn. Lock	457,872	Aug. 18	1549	402 403	56	841
Simon, R. & H. (See Couche, Jules, assignor.)						
Simon, Robert, Union Hill, N. J. Warp-beamer	450,259	Apr. 14	921	228 229	55	183
Simon, Robert, Union Hill, N. J. Loom	453,280	June 2	155	44, 45	55	1177
Simon, Robert, Union Hill, N. J. Skein-lacer	460,665	Oct. 6	208	53, 54	57	43
Simon, Sigismund E., <i>et al.</i> (See Beck, Joseph, assignor.)						
Simonds, George F., Fitchburg, Mass. Method of and apparatus for making screw-threaded rolled forgings	446,932	Feb. 24	2334	579	54	993
Simonds, George F., Fitchburg, Mass. Device for knurling the surfaces of metal articles	446,933	Feb. 24	2337	579 580	54	994
Simonds, George F., Fitchburg, Mass. Making rolled forgings non-circular in cross-section	446,934	Feb. 24	2338	580 581	54	994
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,952	Apr. 7	455	114 115	55	89

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Simonds, George F., Fitchburg, Mass. Ball-bearing	449,953	Apr. 7	457	115	55	89
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,954	Apr. 7	460	115	55	90
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,955	Apr. 7	461	115	55	90
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,956	Apr. 7	462	116	55	90
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,957	Apr. 7	464	116	55	91
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,958	Apr. 7	466	116	55	91
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,959	Apr. 7	467	116 117	55	91
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,960	Apr. 7	469	117	55	92
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,961	Apr. 7	470	117	55	92
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,962	Apr. 7	472	118	55	92
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,963	Apr. 7	473	118	55	92
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,964	Apr. 7	474	118	55	93
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,965	Apr. 7	475	118	55	93
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,966	Apr. 7	477	119	55	93
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,967	Apr. 7	477	119	55	93
Simonds, George F., Fitchburg, Mass. Ball-bearing	449,968	Apr. 7	478	119	55	93
Simonds, George W. (See Pudan, Oliver C., assignor.)						
Simonds, William E., Canton, Conn. Eraser	445,092	Jan. 20	1786	459	54	365
Simonds, William E., Canton, Conn. Shirt-cuff	446,367	Feb. 10	1416	348	54	793
Simonds, William H., East Windsor, Conn. Apparatus for cooking eggs	461,989	Oct. 27	2353	584	57	473
Simons, Levi A., Omaha, Nebr. Grain-separating apparatus	446,794	Feb. 17	2086	520	54	939
Simons, Paul, Darmstadt, Germany. Rack-rail for rack-railways	444,641	Jan. 13	1031	268	54	212
Simonsen, Flavel, Milwaukee, Wis. Shaft-collar	448,087	Mar. 10	1323	340	54	1378
Simonson, Flavel, Batesville, Ark., assignor to G. H. Chamberlain, Milwaukee, Wis. Log- lifting and turning machine	448,588	Mar. 17	2143	537 538	54	1544
Simonson, Flavel, Batesville, Ark., assignor to G. H. Chamberlain, Milwaukee, Wis. Stop- ping apparatus	448,589	Mar. 17	2146	538	54	1545
Simonson, Flavel, assignor to G. H. Chamberlain, Milwaukee, Wis. Log loader and turner	448,590	Mar. 17	2147	538	54	1546
Simonson, Flavel, assignor to G. H. Chamberlain, Milwaukee, Wis. Log lifter and turner	448,591	Mar. 17	2149	538	54	1546
Simonson, Flavel, assignor to G. H. Chamberlain, Milwaukee, Wis. Log lifter and turner	448,592	Mar. 17	2150	539	54	1546
Simonson, Flavel, assignor to G. H. Chamberlain, Milwaukee, Wis. Log lifter and turner	448,593	Mar. 17	2153	539	54	1547
Simonson, James H. (See Daniels, Howard, assignor.)						
Simonson, James H. (See Mathias, David H., assignor.)						
Simplex Motor Company. (See Parcelle, Albert L., assignor.)						
Simpson, Charles A., Saxonville, Mass. Inhaler	454,142	June 16	1442	377	55	1438
Simpson, Charles E., Portsmouth, Ohio. Brick-mold	459,313	Sept. 8	1197	291	56	1306
Simpson, George H., assignor of one-half to W. C. Buntin, Terre Haute, Ind. Condenser	454,386	June 16	1807	471	55	1508
Simpson, George H., assignor of one-half to W. C. Buntin, Terre Haute, Ind. Evaporator	455,125	June 30	3071	781	55	1762
Simpson, George W., London, England. Clinical thermometer	453,833	July 14	879	231	56	177
Simpson, Henry J., assignor of one-half to H. H. Hosack, Liverpool, England. Ship's boat- disengaging gear	463,957	Nov. 24	2767	717 718	57	1109
Simpson, Isaac. (See Smith, Steven E., assignor.)						
Simpson, Isaiah H., Brunswick, Me. Device for thawing ice from pipes	458,503	Aug. 25	2579	628	56	1042
Simpson, James, McKeesport, Pa. Apparatus for making pipe	452,114	May 12	1080	274 275	55	785
Simpson, James, Liverpool, England. Making caustic soda	462,366	Nov. 3	238		57	596
Simpson, John. (See Robinson, Dighton A., assignor.)						
Simpson, John, assignor of one-half to D. A. Robinson, Minneapolis, Minn. Grain-spout	445,645	Feb. 3	204	54	54	552
Simpson, John A., Kansas City, Kans. Folding bed	452,483	May 19	1695	426	55	909
Simpson, Sadie F., Saxonville, Mass. Toy	447,164	Feb. 24	2740	678	54	1069
Simpson, William F., Nelsonville, Mo. Car-coupling	463,925	Nov. 24	2725	707	57	1190
Sims, Courtland, Los Olivos, assignor of one-half to W. T. Mead, Santa Ynez, Cal. Cultivator	461,596	Oct. 20	1714	419	57	343
Sims, Frederick L. H., Toronto, Canada. Brick-machine	457,381	Aug. 11	769	197 198	56	683
Sims, Jesse C., Maynard, Mass. Thermostat	450,896	Apr. 21	1941	476	55	392
Sims, Lewis J., et al., executors. (See Russell, Hamlin G.)						
Sims, Milton T., Aurora, Ill. Fastening device for car-doors	451,702	May 5	395	96	55	654
Sims, Winfield S., Newark, N. J. Electrically propelled and steered torpedo	450,875	Apr. 21	1914	470	55	387
Sinclair, R. B., Alameda, Cal. Windmill	457,168	Aug. 4	358	91, 92	56	602
Sinclair, Alexander, Birmingham, assignor to Royal Axminster Carpet Company, Camden, N. J. Loom for weaving chenille fabrics	446,896	Feb. 24	2269	564 565 566	54	982
Sinclair, James. (See Hill, Frederick B., assignor.)						
Sinclair, James P., and F. A. Finlay, Mottville, N. Y. Spool	463,203	Nov. 17	1567	408	57	871
Sinclair, Thomas M. (See Sheffield and Sinclair.)						
Sinclair, Anna T., New York, N. Y. Letter-box	450,379	Apr. 14	1121	274	55	220
Singer, Adolph L., Chicago, Ill. Apparatus for marking and cutting cloth	451,006	Apr. 21	2121	523 524	55	427
Singer Fire-Alarm Company of Buffalo. (See Singer, William F., assignor.)						
Singer, George, Coventry, England. Velocipede	444,141	Jan. 6	269	64	54	55
Singer, George S., Cardington, Ohio. Incubator and brooder	464,804	Dec. 8	1236	307 308 309	57	1379
Singer, Jacob, assignor to himself, B. M. Feldman, and I. B. Cassel, New York, N. Y. Siphon	465,734	Dec. 22	2749	702	57	1688
Singer Manufacturing Company of New Jersey. (See Allen, Edward B., assignor.)						
Singer Manufacturing Company of New Jersey. (See Diehl, Philip, assignor.)						
Singer Manufacturing Company of New Jersey. (See Foster, Charles H., assignor.)						
Singer Manufacturing Company of New Jersey. (See Houghton, John Q. A., assignor.)						
Singer Manufacturing Company of New Jersey. (See Staples, Elial M., assignor.)						
Singer, William F., Carthage, assignor to Singer Fire-Alarm Company of Buffalo, Limited, Buffalo, N. Y. Fire-alarm signal-box	448,684	Mar. 24	2315	580 581	54	1584
Singer, William F., Carthage, assignor of one-half to G. L. Haviland, Syracuse, N. Y. Thermostat	450,260	Apr. 14	922	229	55	184
Singer, William F., Carthage, assignor of one-half to G. L. Haviland, Syracuse, N. Y. Auto- matic fire-extinguisher head	451,280	Apr. 28	2564	632	55	522
Singer, William F., Carthage, assignor of one-half to G. L. Haviland, Syracuse, N. Y. Sta- tionary automatic fire-extinguisher	456,500	July 21	1904	503 504	56	379
Singer, William F., Carthage, assignor of one-half to G. L. Haviland, Syracuse, N. Y. Automatic gas-generating machine	459,712	Sept. 15	1853	466	56	1440

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Singley, Samuel, New York, N. Y., assignor to Magnolia Anti-Friction Metal Company, of New York. Making alloys	464,395	Dec. 1	603		57	1248
Sinning, Charles, St. Louis, Mo. Lasting-machine	456,225	July 21	1451	<div>385 386 387 388 389</div>	56	294
Sinning, Charles, St. Louis, Mo., assignor to Sinning Lasting Machine Company, East St. Louis, Ill. Tacking-machine	456,226	July 21	1463	<div>388 389</div>	56	296
Sinning, Charles, St. Louis, Mo., assignor to Sinning Lasting Machine Company, East St. Louis, Ill. Lasting-machine	456,227	July 21	1465	390	56	297
Sinning, Charles, St. Louis, Mo., assignor to Sinning Lasting Machine Company, East St. Louis, Ill. Lasting-machine	456,228	July 21	1467	390	56	297
Sinning, Charles, assignor to Sinning Lasting Machine Company, St. Louis, Mo. Device for regulating spring-tension	458,920	Sept. 1	579	141	56	1176
Sinning, Charles, assignor to Sinning Lasting Machine Company, St. Louis, Mo. Lasting-machine	458,921	Sept. 1	581	<div>141 142</div>	56	1177
Sinning Lasting Machine Company. (See Sinning, Charles, assignor.)						
Sintzenich, Horace H. C., Toronto, Canada. Railway-rail chair	451,386	Apr. 28	2708	672	55	549
Sire, Georges E., Besancon, France. Gyroscope	462,512	Nov. 3	455	112	57	637
Sippach, Ernst, Altendorf, near Rothenstein, Germany. Leaf-turner	457,675	Aug. 11	1219	313	56	769
Sisler, Yngve D., Philadelphia, Pa. Composition for the removal of paint, grease, &c	453,849	June 9	1033		55	1352
Sisson, Fred W. (See Ware, Henry E., assignor.)						
Sisson, Harry W., Monmouth, Ill. Horse-blanket	448,376	Mar. 17	1820	459	54	1483
Sisson, Harry W., Monmouth, Ill. Halter	462,743	Nov. 10	824	215	57	719
Sissons, Jonathan M., Hull, and W. S. Mayo, said Sissons assignor to G. Robertson, Ottawa, Canada. Fagot-making machine	458,321	Aug. 25	2272	<div>557 558</div>	56	986
Sjoberg, Carl J. A., Brooklyn, N. Y., assignor to Garvin Machine Company, of New York. Type-writing machine	445,128	Jan. 20	1814	<div>477 478</div>	54	376
Sjoberg, Carl J. A., assignor to M. C. Sjoberg, Brooklyn, N. Y. Anti-friction bearing	462,744	Nov. 10	825	215	57	719
Sjoberg, Mathilde C. (See Sjoberg, Carl J. A., assignor.)						
Skaggs, Newton J., Montgomery, Ala., and R. S. Skaggs, San Saba, Tex. Mechanical movement	461,943	Oct. 27	2288	566	57	461
Skaggs, Richard S. (See Skaggs, Newton J. and R. S.)						
Skelton, John C., et al. (See Wilcox, Amos A., assignor.)						
Skelton, William M., Lebanon, Ind. Fence-post	458,504	Aug. 25	2580	<div>628 629 630</div>	56	1043
Skidmore, Frederick R., Milwaukee, Wis. Valve-controlling mechanism for engines	463,845	Nov. 24	2582	<div>672 673</div>	57	1075
Skiffington, William P., New York, N. Y. System of steam-heating	464,946	Dec. 8	1437	<div>361 362</div>	57	1420
Skilton, James A., Brooklyn, N. Y. Heating and ventilating apparatus and system	445,762	Feb. 3	405	103	54	593
Skilton, James A., Brooklyn, N. Y. Heating and ventilating apparatus and system	445,763	Feb. 3	409	103	54	593
Skilton, James A., Brooklyn, N. Y. Heating and ventilating apparatus and system	460,684	Oct. 6	242	60, 61	57	49
Skinner, Albert C., assignor of two-thirds to E. L. Schofield and T. M. Brown, Buffalo, Mo. Animal-trap	451,163	Apr. 28	2355	585	55	483
Skinner Chuck Company. (See Skinner, James N., assignor.)						
Skinner, Gardiner M., Clayton, N. Y. Spoon-bait	465,215	Dec. 15	1919	488	57	1519
Skinner, Gardiner M., Clayton, N. Y. Spoon-bait	465,704	Dec. 22	2711	691	57	1680
Skinner, George, Cambridge, Mass. Sail	449,004	Mar. 24	2871	712	54	1679
Skinner, Halcyon, Yonkers, N. Y. Tubular boiler	448,890	Mar. 24	2640	663	54	1645
Skinner, Halcyon, and F. H. Connolly, Yonkers, N. Y. Needle-loom	449,336	Mar. 31	3353	<div>845 846</div>	54	1787
Skinner, Halcyon, and F. H. Connolly, Yonkers, N. Y. Loom for weaving pile fabrics	449,337	Mar. 31	3357	<div>846 847 848</div>	54	1788
Skinner, James N., New Britain, Conn. Lathe-chuck jaw	463,373	Nov. 17	1842	482	57	924
Skinner, James N., assignor to Skinner Chuck Company, New Britain, Conn. Drill-chuck	454,074	June 16	1346	352	55	1421
Skinner, James N., assignor to Skinner Chuck Company, New Britain, Conn. Lathe-chuck	460,601	Oct. 6	85	23	57	19
Skinner, James N., assignor to Skinner Chuck Company, New Britain, Conn. Lathe-chuck	463,392	Nov. 17	1880	490	57	931
Skinner, John, Flint, Mich. Cutting apparatus for harvesters	464,526	Dec. 8	806	197	57	1298
Skinner, Joseph J., Boston, Mass. Electric-arc lamp	444,154	Jan. 6	287	69	54	59
Skinner, Joseph W. (See Erin, John J., assignor.)						
Skirving, Samuel M., and A. J. B. Berger, Philadelphia, Pa. Street-sweeping machine	444,025	Jan. 6	66	18	54	16
Skoda, Emil von, Pilsen, Austria-Hungary. Quick-firing gun	448,841	Mar. 24	2560	<div>642 643 644</div>	54	1631
Skoda, Emil von, Pilsen, Austria-Hungary. Breech-loading ordnance	449,711	Apr. 7	102	27	55	22
Skoda, Emil von, Pilsen, Austria-Hungary. Breech-loading ordnance	458,505	Aug. 25	2581	629	56	1043
Skone, John D. (See Applequist, Charles J., assignor.)						
Skone, John D., Carver, Minn. Manure fork and scraper	460,997	Oct. 13	710	183	57	145
Skotnicki, George von. (See Skotnicki, Marcell von, assignor.)						
Skotnicki, Marcell von, assignor to G. von Skotnicki, Charlottenburg, near Berlin, Germany. Sterilizing apparatus	465,393	Dec. 15	3218	569	57	1755
Skuborvins, August, and S. Fuldheim, Cleveland, Ohio. Noodle-cutting machine	457,624	Aug. 11	1144	292	56	755
Skuce, James, Truesdell, Wis. Cigar or pipe holder	458,506	Aug. 25	2584	630	56	1044
Skuttsch, David, St. Louis, Mo. Safety address-stamp	464,085	Dec. 1	119	30	57	1160
Slack, John H., assignor to A. M. Dolph Company, Cincinnati, Ohio. Washing-machine	448,377	Mar. 17	1821	459	54	1483
Slade, Walter, Pascoag, R. I. Friction attachment for spool-creels	447,496	Mar. 3	387	94	54	1191
Slade, William H. (See Evans, Owen F., assignor.)						
Slager, Albert L., and G. E. Linn, assignors to G. S. Foos Company, Springfield, Ohio. Hay-rake	446,157	Feb. 10	1062	261	54	725
Slaght, Arthur T., et al. (See Reason, Walter M., assignor.)						
Slaght, Arthur T., et al. (See Wright, Herbert A., assignor.)						
Slagle, L. H., et al. (See Lafferty, Erastus S., assignor.)						
Slate, George B., Chicago, Ill. Dash-board	457,421	Aug. 11	828	214	56	694
Slater, Jarvis A., Cleveland, Ohio. Machine for making semicircular wooden handles for sad-irons	456,316	July 21	1601	<div>423 424</div>	56	322
Slater, William D., assignor to Morgan Envelope Company, Springfield, Mass. Envelope-machine	463,458	Nov. 17	1964	513	57	949
Slater, William D., assignor to Morgan Envelope Company, Springfield, Mass. Envelope-machine	463,459	Nov. 17	1966	513	57	949
Slater, William W., Oakland, Cal. Automatic bell-ringer	449,866	Apr. 7	336	86	55	67
Slater, William W., Oakland, Cal. Air-brake system	452,942	May 26	2427	613	55	1060
Slater, William W., and H. C. Barnes, Oakland, Cal. Bell-ringing attachment	461,718	Oct. 20	1910	472	57	379

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Slattery, Marmaduke M. M., assignor to Fort Wayne Electric Light Company, Fort Wayne, Ind. Electrode for secondary batteries.....	446,104	Feb. 10	967	54	707
Slaughter, Triplett L., Saline, assignor of one-half to L. S. Drew, Bienville, La. Circular saw.....	449,005	Mar. 24	2812	712	54	1679
Slavin, Andrew, Tampico, Wash. Adding-machine.....	462,334	Nov. 3	180	46	57	585
Slavin, Patrick J., Waterbury, Conn. Liquid-cooler.....	448,552	Mar. 17	2085	523	54	1534
Slawson, George W., Davenport, Nebr. Fly-fan.....	445,630	Feb. 3	177	46	54	546
Slayden, William H., and D. M. Reynolds, assignors of one-half to J. S. Edwards, Erin, Tenn. Car-coupling.....	453,947	June 9	1163	304	55	1378
Slaymaker, Barry & Co. (See Troast and Slaymaker, assignors.)						
Slaymaker, Samuel H. (See Smith and Slaymaker.)						
Slaymaker, Samuel R. (See Troast and Slaymaker.)						
Slayton, Augustus W. (See Reinhold and Slayton.)						
Sleath, Edward T. (See Rattek, Frank, assignor.)						
Slimm, Joseph, Milwaukee, Wis. Furnace.....	450,043	Apr. 7	584	145	55	112
Slinn, James B., San Francisco, Cal., and C. A. Holland, New York, N. Y. Dice-box.....	464,915	Dec. 8	1386	350	57	1409
Sloan, Crawford M., Kansas City, Mo. Running-gear for railway-cars.....	450,796	Sept. 22	1922	499	56	1470
Sloan, David F., Mattapan, Mass. Horse-detacher.....	448,272	Mar. 17	1641	418	54	1449
Sloan, Frank B. (See Clarkson, Frank S., assignor.)						
Sloan, George B., Jr., Oswego, N. Y. Sash-fastener.....	454,628	June 23	2211	569	55	1590
Sloan, John O. (See King, John H., assignor.)						
Sloan, Mat., et al. (See Johnson, Oliver, assignor.)						
Sloan, William E., J. E. Hughes, and O. S. Reed, assignors to Vibro Telegraph Company, Chicago, Ill. Telegraphic apparatus.....	459,448	Sept. 15	1426	558	56	1359
Sloane, John D., assignor, by mesne assignments, to G. Duvall, St. Paul, Minn. Micrometer-calipers.....	455,644	July 7	559	145	56	108
Sloat, George V., Rutherford, N. J. Steam-boiler.....	466,191	Dec. 29	3510	{ 897 898 }	57	1843
Slocum, Caroline H., Milwaukee, Wis. Tack-puller.....	463,817	Nov. 24	2538	662	57	1066
Slocum, Eason L., Pawtucket, R. I. Auxiliary fire alarm and extinguisher system.....	449,829	Apr. 7	284	75, 76	55	57
Slocum, Eason L., Pawtucket, R. I. Time-check register.....	465,394	Dec. 15	2219	{ 569 570 }	57	1575
Slocum, Grant H., assignor of one-half to T. C. Quinn, Caro, Mich. Perforating attachment for printing-presses.....	454,231	June 16	1571	414	55	1464
Slocum, Grant H., and W. J. Gamble, assignors of one-third to T. C. Quinn, Caro, Mich. Perforating attachment for printing-presses.....	454,232	June 16	1573	414	55	1464
Slongh, Hamilton H., Mark Centre, Ohio. Safe-skid.....	458,697	Sept. 1	233	55	56	1110
Slusser, Benjamin, Sidney, Ohio. Corn-harvester.....	449,969	Apr. 7	479	120	55	93
Slutz, Harman V. and T. Alta, Iowa. Railway-tie.....	451,781	May 5	517	128	55	676
Slutz, Theophilus. (See Slutz, Harman V. and T.)						
Slye, Alexander. (See Fisher and Slye.)						
Small, Charles C., assignor of one-half to L. K. Brown, Boston, Mass. Inking apparatus for printing-presses.....	464,044	Dec. 1	55	15	57	1147
Small, Chester C., assignor to F. F. Raymond, 2d, Newton, Mass. Shoe-nail.....	461,853	Oct. 27	2131	525	57	430
Small, Frederick E., assignor of two-thirds to F. A. Swan and F. Lane, Boston, Mass. Driving mechanism for railway-cars.....	453,025	May 26	2556	647	55	1085
Small, Henry J., and T. W. Heintzelman, Sacramento, Cal. Snow-plow.....	451,138	Apr. 28	2314	{ 573 574 }	55	474
Small, William A., Esbon, Kans. Harrow and weeder.....	464,396	Dec. 1	603	149	57	1248
Smalley, Clarence C., Manitowoc, Wis. Lifting-jack.....	451,359	Apr. 28	2645	654	55	537
Smallwood, Edward, Elyria, Ohio. Stone-planing machine.....	447,372	Mar. 3	156	42, 43	54	1147
Smallwood, George T., and R. M. Smith, Washington, D. C. Drawing-board.....	449,006	Mar. 24	2813	712	54	1680
Smallwood, James B., et al. (See Hamilton, Thomas H., assignor.)						
Smart, Albert J., assignor to Wiley & Russell Manufacturing Company, Greenfield, Mass. Tap-wrench.....	455,859	July 14	910	238	56	183
Smart, Elijah W., Exeter, N. H. Flushing-valve.....	464,590	Dec. 8	894	220	57	1316
Smead, Isaac D., Toledo, Ohio. Cremating-closet.....	449,970	Apr. 7	483	{ 120 121 }	55	94
Smead, Isaac D., Toledo, Ohio. Cremation-closet.....	449,971	Apr. 7	486	121	55	94
Smead, George W., Osceola Mills, Pa. Stump-extractor.....	453,051	May 26	2596	656	55	1092
Smeles, Levi K., assignor to Taylor Company, New York, N. Y. Burial-casket lid.....	456,442	July 21	1818	481	56	363
Smelser, James M., Richmond, Ind. Traction-engine.....	455,889	July 14	956	250	56	192
Smethurst, James. (See Gledhill, Walter, assignor.)						
Smidt, William H., et al. (See Egge, Frederick, assignor.)						
Smith, Verner F. L., Copenhagen, Denmark. Drying apparatus.....	456,742	July 28	2323	613	56	468
Smillie Coupler and Manufacturing Company. (See Meeker, Stephen J., assignor.)						
Smillie Coupler and Manufacturing Company. (See Smillie, George W., assignor.)						
Smillie, George W., Newark, N. J., assignor to Smillie Coupler and Manufacturing Company, of New Jersey. Car-coupling.....	451,883	May 5	662	168	55	705
Smiley, John B., South Omaha, Nebr. Combined window shelf and bracket.....	456,443	July 21	1819	481	56	363
Smith, Abia B., assignor to Hussey, Binns & Company, Limited, Pittsburg, Pa. Tamping-handle for shovels.....	462,745	Nov. 10	826	{ 215 216 }	57	719
Smith, Albert, Bradford, and H. W. Whitehead, Leeds, England. Combing-machine.....	466,192	Dec. 29	3510	898	57	1844
Smith, Albert D., assignor to Waterbury Buckle Company, Waterbury, Conn. Buckle.....	451,281	Apr. 28	2566	632	55	522
Smith, Albert D., assignor of one-half to J. C., H. G., and G. F. Jones, Emporia, Kans. Attachment for cultivators.....	460,540	Sept. 29	3145	786	56	1702
Smith, Albert D. and F. W., St. Louis, Mo. Automatic release for cable-grips.....	458,432	Aug. 25	2463	599	56	1021
Smith, Alexander, assignor of one-half to Crown Manufacturing Company, Phelps, N. Y. Seeder.....	452,623	May 19	1909	480	55	950
Smith, Alexander R., Brooklyn, N. Y. Stall-floor.....	463,244	Nov. 17	1627	425	57	8-4
Smith, Alfred E., Bronxville, N. Y. Axle-journal and journal-bearing.....	454,075	June 16	1347	352	55	1421
Smith, Alvin C., Jackson, Mich. Box for stop-cocks of service pipes and valves.....	455,415	July 7	191	49	56	40
Smith and Egge Manufacturing Company. (See Egge, Frederick, assignor.)						
Smith, Andrew C., and M. K. Bishop, Scranton, Pa. Coal separator and cleaner.....	454,148	June 16	1452	380	55	1440
Smith, Andrew H., New York, N. Y. Street-sweeping machine.....	447,528	Mar. 3	435	107	54	1199
Smith, Andrew H., New York, N. Y. Dump-cart.....	465,328	Dec. 15	2104	537	57	1554
Smith, Andrew L., Chicago, Ill., assignor to Geneva Optical Company, of Illinois. Gage for centering lenses and making other optical measurements.....	458,922	Sept. 1	583	142	56	1177
Smith, Anthony P., Newark, N. J. Apparatus for tapping mains.....	455,890	July 14	957	250	56	192
Smith & Anthony Stove Company. (See McHugh, Timothy, assignor.)						
Smith, Archibald, Cambridge, Mass., assignor to C. H. Breck, trustee. Hot-bed covering.....	444,400	Jan. 6	654	169	54	129
Smith, Arthur, Poughkeepsie, N. Y. Belt-fastener.....	453,515	June 2	530	136	55	1248
Smith, Arthur B., et al. (See Mitchell, Willis, assignor.)						
Smith, Augustus P., Rock Falls, Ill. Metallic fence-post.....	459,594	Sept. 15	1663	415	56	1403

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Smith, Augustus P., Rock Falls, Ill. Blind-stop	459,595	Sept. 15	1665	415	56	1403
Smith, Anstin J., assignor of one-fourth to E. J. Abell, Coal City, Ill. Bridge-gate	463,393	Nov. 17	1881	490	57	931
Smith, Benjamin F., <i>et al.</i> (See Shaw, George F., assignor.)						
Smith, Benjamin F., Somerville, Mass. Drill-stock	441,256	Jan. 6	441	111	54	86
Smith, Benjamin F., Somerville, Mass. Track-drilling device	446,023	Feb. 10	833	201	54	683
Smith, Bridges, Macon, Ga. Railway-tie	451,295	Apr. 28	2585	638	55	526
Smith, Bridges, Macon, Ga. Rail-fastening	453,922	June 9	1131	296	55	1371
Smith, Burton. (See Barber, Edwin J., assignor.)						
Smith, C. Harold. (See Binney, Edwin, assignor.)						
Smith, Charles, Wilkes-Barré, Pa. Ice-breaker and electric-current transmitter	463,257	Nov. 17	1650	429	57	888
Smith, Charles A. (See Walters and Smith.)						
Smith, Charles C., Brooklyn, assignor to H. M. Lewis, New York, N. Y. Ice-freezing machine	450,199	Apr. 14	815	205	55	165
Smith, Charles C., Erie, and S. H. Slaymaker, Newton, Ill. Eaves-trough	453,948	June 9	1165	304	55	1379
Smith, Charles D., Baltimore, Md. File	455,443	July 7	229	59	56	47
Smith, Charles G., <i>et al.</i> (See Shaw, George F., assignor.)						
Smith, Charles G., Detroit, Mich. Excelsior-cutting machine	447,846	Mar. 10	943	{ 236 237 }	{ 54 }	1303
Smith, Charles G., Brooklyn, N. Y., and L. Pfingst, Boston, Mass. Lamp for electric-railway cars	448,865	Mar. 24	2610	655	54	1640
Smith, Charles H., Bethany, Ill. Wash-board	449,972	Apr. 7	488	121	55	95
Smith, Charles H., assignor to O. B. North & Company, New Haven, Conn. Flame-fastener	447,587	Mar. 3	520	127	54	1215
Smith, Charles H., assignor to O. B. North & Company, New Haven, Conn. Snap-hook	450,818	Apr. 21	1825	442	55	370
Smith, Charles H., assignor to O. B. North & Company, New Haven, Conn. Snap-hook	461,646	Oct. 20	1796	442	57	357
Smith, Charles H., assignor to O. B. North & Company, New Haven, Conn. Snap-hook	461,647	Oct. 20	1797	442	57	358
Smith, Charles H., assignor to O. B. North & Company, New Haven, Conn. Snap-hook	465,296	Dec. 15	2053	524	57	1543
Smith, Charles R., Paterson, N. J. Boiler-front	458,077	Aug. 18	1876	489	56	904
Smith, Charles R., Providence, R. I., assignor to C. R. Smith Plating Company, of Kentucky. Making plated wire	448,594	Mar. 17	2155	539	54	1547
Smith, Charles R., Providence, R. I., assignor to C. R. Smith Plating Company, of Kentucky. Manufacturing seamless hollow wire	449,182	Mar. 31	3088	779	54	1741
Smith, Charles R., Providence, R. I., assignor to C. R. Smith Plating Company, of Kentucky. Manufacturing seamless gold-plated wire	449,183	Mar. 31	3090	779	54	1741
Smith, Charles S., Buffalo, N. Y. Vestibule-car	451,227	Apr. 28	2473	{ 610 611 }	{ 55 }	502
Smith, Charles W. (See Marr and Smith.)						
Smith, Charles W., Norwalk, Ohio. Picture-rail for easels	464,045	Dec. 1	56	16	57	1147
Smith, Charlotte K., Binghamton, N. Y. Making flagree ornaments	452,992	May 12	1362	339	55	840
Smith, Chauncey W., Brush Creek, Iowa. Car-coupling	447,165	Feb. 24	2741	678	54	1069
Smith, Clayton P., assignor of two-twentieths to P. Sprigg and J. Lightner, San Diego, Cal. Faucet	453,165	May 26	2799	702	55	1129
Smith, Clayton P., San Francisco, Cal., assignor to American Pump Manufacturing Company of California. Pump	460,223	Sept. 29	2639	658	56	1604
Smith, Clement. (See Smith, Lucius A. and C.)						
Smith, Cullen R., Prairie Lea, Tex. Trundler for spooled wire	460,894	Oct. 6	558	141	57	109
Smith, Daniel L. (See P. rish, Robert J., assignor.)						
Smith, Daniel T., assignor of one-half to J. T. Groves, Auburn, N. Y. Carriage-top joint	445,631	Feb. 3	178	46	54	546
Smith, Daniel W., and J. K. Hopkins, assignors to J. Porteous, Fresno, Cal. Dirt-scraper	461,174	Oct. 13	964	248	57	192
Smith, De Wane B., Deerfield, assignor of one-half to C. H. Poole, Utica, N. Y. Harness	444,401	Jan. 6	655	{ 169 170 }	{ 54 }	129
Smith, De Wane B., Deerfield, assignor to C. H. Poole, Oneida, N. Y., and National Harrow Company, of New York. Harrow	449,649	Mar. 31	3882	971	54	1887
Smith, De Wane B., Deerfield, N. Y., assignor to National Harrow Company of New York. Harrow	453,672	June 9	776	200	55	1303
Smith, De Wane B., Utica, assignor, by mesne assignments, to W. M. Brinkerhoff, Auburn, N. Y. Harrow	446,820	Feb. 17	2125	528	54	947
Smith, Dwight L., Waterbury, Conn. Buckle	450,432	Apr. 14	1200	293	55	236
Smith, Dwight L., Waterbury, Conn. Suspender-buckle	463,374	Nov. 17	1843	482	57	925
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Suspender-buckle	462,457	Nov. 3	378	93	57	622
Smith, Donald A. (See Bissett, Edwin H., assignor.)						
Smith, Earl A. (See Smith, Dwight L., assignor.)						
Smith, Edward. (See McNair, Milton H., assignor.)						
Smith, Edward C., Oskaloosa, Iowa. Combined indicator and advertising device	450,897	Apr. 21	1941	476	55	392
Smith, Edward G., assignor of one-half to H. Jaeger, New York, N. Y. Propelling apparatus	453,217	June 2	55	15	55	1159
Smith, Edward H., New York, N. Y. Safety-hook for life-lines	452,199	May 12	1222	309	55	812
Smith, Eli K. (See Newcomb, Evander B., assignor.)						
Smith, Elias D. (See Wimmer, Louis, assignor.)						
Smith, Elizabeth W., <i>et al.</i> (See Mitchell, George P., assignor.)						
Smith, Elmer S., New York, assignor to American Engine Company, Buffalo, N. Y. Steam-engine	457,926	Aug. 18	1644	{ 430 431 }	{ 56 }	859
Smith, Elmer S., New York, assignor to American Engine Company, Buffalo, N. Y. Steam-engine	457,927	Aug. 18	1649	432	56	860
Smith, Ephraim, assignor to G. V. Willson, Pittsburg, Pa. Mowing-machine	445,347	Jan. 27	2183	565	54	452
Smith, Eugene C., assignor to Universal Lock Company, New York, N. Y. Cylinder-lock	457,873	Aug. 18	1550	403	56	841
Smith Exhaust Pipe Company. (See Smith, John Y., assignor.)						
Smith, Ezra W. (See Loftus, John, assignor.)						
Smith, Frank D., Georgetown, Mass. Shoe	450,200	Apr. 14	817	205	55	165
Smith, Frank E., San José, Cal., assignor to E. Howard Watch and Clock Company, Boston, Mass. Contact for electric programme-clocks	459,917	Sept. 22	2183	549	56	1509
Smith, Frank H., Chicago, Ill. Toy and advertising device	464,679	Dec. 8	1033	259	57	1342
Smith, Frank H., Philadelphia, Pa., assignor to W. H. Power, Detroit, Mich. Apparatus for producing artificial water-falls	456,680	July 28	2206	585	56	447
Smith, Frank W. (See Smith, Albert D., and F. W.)						
Smith, Fred P., Waterford, N. Y., assignor of one-half to O. S. Kendall, Worcester, Mass. Dry closet	459,901	Sept. 22	2164	544	56	1505
Smith, Frederic F., Woburn, Mass. Trolley for electric railways	460,163	Sept. 29	2550	636	56	1505
Smith, Frederick A. (See Upson and Smith.)						
Smith, Frederick H. (See Clarke, Powhatan, assignor.)						
Smith, Frederick W., New London, Conn. Car-coupling	449,974	Apr. 7	491	122	55	95
Smith, Friend W., Bridgeport, Conn. Pendant handle	455,769	July 14	767	202	56	157
Smith, Friend W., Jr., and S. S. Williamson, Bridgeport, Conn. Street-car	455,842	July 14	888	233	56	179
Smith, Friend W., Jr., and S. S. Williamson, assignors to Lightning Check Punch Company, Bridgeport, Conn. Punch for bank-checks	455,929	July 14	1014	{ 264 265 }	{ 56 }	203

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Smith, Friend W., Jr., and S. S. Williamsou, assignors to Lightning Check Punch Company, Bridgeport, Conn. Punch for bank-checks	460,164	Sept. 29	2552	637	56	1586
Smith, George, Portageville, N. Y. Butter-tub	450,261	Apr. 14	924	229	55	184
Smith, George A. (See Kimball, William H., assignor.)						
Smith, George A., Cohoke, Va. Millstone-dressing machine	463,460	Nov. 17	1968	514	57	950
Smith, George A., assignor of three-fourths to C. E. Lott, C. S. Jackson, and R. D. Webster, Paulding, Ohio. Pump	450,535	Apr. 14	1341	330	55	264
Smith, George A., assignor of one-half to W. H. Kneas, Norristown, Pa. Machine for making screws	456,913	July 28	2606	684 } 685 }	56	519
Smith, George B., St. Cloud, Minn. Sprinkler	459,449	Sept. 15	1430	359	56	1359
Smith, George B., Detroit, Mich., assignor to H. A. Richardson, Brooklyn, N. Y. Composition for treating iron, stone, &c.	450,388	Apr. 14	1130		55	222
Smith, George D., New York, N. Y. Service and cash check	449,973	Apr. 7	489	122	55	95
Smith, George H., Webster, W. Va. Wheel-hub	454,688	June 23	2296	588	55	1607
Smith, George R., Buffalo, Mo. Animal-trap	446,119	Feb. 10	991	244	54	712
Smith, George W. (See Southard and Smith.)						
Smith, George W., Union City, Ind. Gate	449,091	Mar. 24	2942	745 } 746 }	54	1705
Smith, George W., Union City, Ind. Electric-light hanger	454,815	June 23	2497	642 } 643 }	55	1644
Smith, George W., Rochester, N. Y. Mail-bag catcher	458,960	Sept. 1	639	157	56	1190
Smith, George W., Mount Vernon, assignor of one-half to J. M. Shinn, Velhorn Manor, N. Y. Air-cooling apparatus	456,444	July 21	1821	482	56	363
Smith, George W., assignor of one-half to J. I. McGrew, Montpelier, Ind. Washing-machine	456,445	July 21	1822	482	56	364
Smith, George Y., (See McGrath and Smith.)						
Smith, George Y., and J. McGrath, assignors to G. N. Lyman, Sr., Minneapolis, Minn. Flax-brasher	452,442	May 19	1620	492	55	897
Smith & Griggs Manufacturing Company. (See Pilkington, Joseph H., assignor.)						
Smith, H. Burton, Philadelphia, Pa. Bevel-guide for saw-tables	453,893	June 9	1092	286	55	1363
Smith, Hamilton E., New York, N. Y. Ironing-machine	457,673	Aug. 11	1219	313	56	769
Smith, Hamilton E., New York, N. Y. Ironing-machine	457,734	Aug. 11	1320	343	56	790
Smith, Henry F. (See Fawcett and Smith.)						
Smith, Henry J. (See French, James H., assignor.)						
Smith, Henry R., and J. E. Swain, assignors of one-half to G. K. Hutchins and W. T. Henderson, Baltimore, Md. Washing-machine	450,979	Apr. 21	2076	513	55	418
Smith, Henry V., assignor of one-half to F. B. Bradley, Bridgeport, Conn. Metal-shears	457,405	Aug. 11	804	207	56	690
Smith, Herbert M., Rome, N. Y. Puzzle	463,170	Oct. 27	2624	654	57	525
Smith, Homer P., Neenah, Wis. Electrical alarm	460,895	Oct. 6	560	141	57	109
Smith, Horace A., Brooklyn, N. Y. Dumb-waiter	445,824	Feb. 3	523	125	54	613
Smith, Horace S. (See Pettigrew, Smith, and Treat.)						
Smith, Horace S., et al. (See Treat, Smith, and Pettigrew.)						
Smith, Horace S., F. H. Treat, Chicago, and C. Pettigrew, Joliet, assignors to Illinois Steel Company, Chicago, Ill. Billet-conveyer	455,062	June 30	2972	755	55	1743
Smith, Horace S., F. H. Treat, Chicago, and C. Pettigrew, Joliet, assignors to Illinois Steel Company, Chicago, Ill. Process of and machine for billet-forming	455,063	June 30	2973	755 } 756 }	55	1743
Smith, Howard F. (See Thompson and Smith.)						
Smith, Hugh and W. C., assignors of one-half to J. T. Hancock, Gray, Me. Road-cart	461,395	Oct. 13	1337	337	57	266
Smith, Hugh and W. C., assignors of one-half to J. T. Hancock, Gray, Me. Road-cart	462,644	Nov. 3	665	168	57	679
Smith, Ida, West Union, Iowa. Cooking, toasting, and shielding device for stoves	447,373	Mar. 3	158	44	54	1147
Smith, Irving, Biddeford, Me. Bobbin	461,597	Oct. 20	1716	419	57	343
Smith, Irving M., Providence, R. I. Display-case	455,770	July 14	768	202	56	157
Smith, Isaac, Fowler, Cal. Saw-set	457,549	Aug. 11	1028	264	56	733
Smith, Isaac B. (See Hibbard, Charles L., assignor.)						
Smith, Isaac C., et al. (See Parker, Jonas, assignor.)						
Smith, Isaac C., et al. (See Stewart, William J., assignor.)						
Smith, Israel C., and E. E. Herrington; said Herrington assignor to Grand Rapids Folding Bed Company, Grand Rapids, Mich. Folding bed	452,736	May 19	2087	525	55	986
Smith, J. L., et al. (See Fricker, Thomas, assignor.)						
Smith, James A., et al. (See Nickum, George S., assignor.)						
Smith, James A., Poughkeepsie, N. Y. Railway time-signal	465,118	Dec. 15	1771	447 } 448 }	57	1491
Smith, James B., Falls City, Nebr. Gate	455,416	July 7	192	50	56	40
Smith, James D., and T. H. Duhart, Worcester, Mass. Food-mill	464,832	Dec. 8	1270	318	57	1386
Smith, James E. (See Smith, John H. and J. E.)						
Smith, James H., Eccles, A. Goddard, Stockport, L. Higginbottom and T. Mannock, Manchester, assignors to Fustian Cutting Machine Company, Limited, Ordsall Lane Mills, Salford, England. Apparatus for cutting pile fabrics	448,088	Mar. 10	1330	340	54	1379
Smith, James L., Paris, Mo. Gate	450,876	Apr. 21	1917	470	55	387
Smith, James L., et al. (See Head, Joseph A., assignor.)						
Smith, James M., and G. J. Fritz, Butler, N. J.; said Fritz assignor to said Smith. Banjo	451,782	May 5	518	128	55	676
Smith, James P., Amsterdam, N. Y. Sleigh-brace	459,336	Sept. 8	1240	304	56	1314
Smith, James T., New York, N. Y. Umbrella or parasol	457,228	Aug. 4	464	122	56	620
Smith, James T., Baltimore, Md. Steam-boiler	459,724	Sept. 15	1873	471	56	1443
Smith, James T., New York, N. Y. Umbrella or parasol	462,171	Oct. 27	2626	655	57	525
Smith, Jared K., Koloa, Hawaii. Bed-pan	460,288	Sept. 29	2746	684	56	1624
Smith, Jeffrey, Ashland, Nebr. Harness-saddle	452,443	May 19	1622	402	55	898
Smith, Jeremiah W., Athens, Ga. Cotton-gin feeder	464,483	Dec. 1	729	178	57	1274
Smith, Jesse M. (See Hibel and Smith.)						
Smith, Jesse M., Detroit, Mich., assignor to F. A. Hubel. Gelatine-capsule-dipping machine	465,951	Dec. 29	3104	794 } 795 }	57	1766
Smith, Job J., Frankfort, Ky. Cow-catcher	461,266	Oct. 13	1146	292	57	229
Smith, John, Burton-on-Trent, England. Bung-wrench	450,381	Apr. 14	1124	275	55	221
Smith, John A., et al. (See Wood, William G., assignor.)						
Smith, John A., York, Pa. Combined piano and organ	447,120	Feb. 24	2636	654	54	1051
Smith, John A. V., Manchester, N. H. Making steel fly-frame fliers	453,269	June 2	140	39	55	1174
Smith, John H. (See Hornsby, Innocent, and Smith.)						
Smith, John H. (See Hornsby, Innocent, Trolley, and Smith.)						
Smith, John H., Low Fell, Gateshead, England. Apparatus for coating photographic plates with emulsion	455,954	July 14	1054	276 } 277 }	56	203
Smith, John H., Fairchild, Wis. Shoe-buckle	462,779	Nov. 10	883	232	57	730
Smith, John H. and J. E. Buford, Ala. Fertilizer-distributor	446,795	Feb. 17	2087	520	54	939
Smith, John H., G. Thomson, and H. A. Closser, Fairchild, Wis. Alarm-lock	458,600	Sept. 1	79	18	56	1081
Smith, John M. (See Flanders and Smith.)						
Smith, John P., Philadelphia, Pa. Can-opener	466,193	Dec. 29	3511	898	57	1841

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Smith, John P., Exeter, N. H., assignor to F. M. Stevens and H. Cunningham, Boston, Mass. Tacking-machine	445,322	Jan. 27	2146	{ 555 556 }	54	444
Smith, John Q., <i>et al.</i> (See Banks, George L., assignor.)						
Smith, John R., Neosho, Mo., assignor of one-half to F. Blaisdell, Washington, D. C. Wind-mill	465,681	Dec. 22	2683	684	57	1674
Smith, John T., <i>et al.</i> (See Dougherty, George C., assignor.)						
Smith, John T., San Francisco, Cal. Journal-box	451,007	Apr. 21	2124	524	55	427
Smith, John T., San Francisco, Cal. Packing	451,008	Apr. 21	2125	524	55	427
Smith, John T., San Francisco, Cal. Oilier	459,462	Sept. 15	1447	364	56	1363
Smith, John T., New York, N. Y. Treating cork	456,068	July 14	1216	320	56	239
Smith, John T., San Francisco, and J. W. Copeland, assignors to I. Atwood, Redding, Cal. Tanning composition	453,295	June 2	176		55	1181
Smith, John W., Boston, Mass. Heating apparatus	458,197	Aug. 25	2061	534	56	946
Smith, John Y., Doylestown, Pa., assignor to Smith Exhaust Pipe Company, of New Jersey. Spark-extinguisher	460,224	Sept. 29	2641	659	56	1604
Smith, Joseph A., Boonton, N. J., assignor to Powerville Felt Roofing Company, Limited, New York, N. Y. Roofing and lining felt	449,636	Mar. 31	3862	967	54	1884
Smith, Joseph B., Manchester, N. H., assignor to Electric Gas Lighting Company, of Maine. Electrical annunciator	463,001	Nov. 10	1237	322	57	799
Smith, Joseph P., Birmingham, England. Supporting sonorous disks	451,740	May 5	458	112	55	666
Smith, Joshua M., Springfield, assignor of one-half to C. F. Wolf, Moorefield, Ohio. Straw-stacker	446,955	Feb. 24	2363	588	54	999
Smith, Kilian J., Rutherford, N. J. Gas-pressure equalizer	447,914	Mar. 10	1059	265	54	1326
Smith, L. W., <i>et al.</i> (See Fricker, Thomas, assignor.)	456,238	July 21	1486	395	56	301
Smith, Loring M. (See Hochheimer and Smith.)						
Smith, Loring M., Romeo, Mich. Road-cart	454,157	June 16	1467	325	55	1444
Smith, Loring M., Romeo, Mich. Road-cart	455,860	July 14	911	239	56	124
Smith, Louis. (See Sherman, John, assignor.)						
Smith, Lucius A. and C., Topeka, Kans. Truss	455,771	July 14	770	202	56	157
Smith, Luther, Cedar Falls, Iowa. Lawn-mower	445,632	Feb. 3	179	47	54	546
Smith, Lyman, Chicago, Ill., assignor to Smith Pneumatic Transfer and Storage Company, of West Virginia. Apparatus for storing and preserving food	446,024	Feb. 10	835	201	54	623
Smith, Lyman, Chicago, Ill., assignor to Smith Pneumatic Transfer and Storage Company, of West Virginia. Apparatus for storing and preserving food	446,025	Feb. 10	837	202	54	683
Smith, Lyman, Chicago, Ill., assignor to Smith Pneumatic Transfer and Storage Company, of West Virginia. Pneumatic grain transfer, storage, and preservation station	446,026	Feb. 10	839	{ 202 203 204 }	54	684
Smith, Lyman, Chicago, Ill., assignor to Smith Pneumatic Transfer and Storage Company, of West Virginia. Floating grain-silo	446,027	Feb. 10	845	204	54	684
Smith, Lyman, Chicago, Ill., assignor to Smith Pneumatic Transfer and Storage Company, of West Virginia. Storage of cotton	446,028	Feb. 10	846	{ 204 205 206 }	54	685
Smith, Lyman, Chicago, Ill., assignor to Smith Pneumatic Transfer and Storage Company, of West Virginia. Pneumatic elevator and storage-station	446,029	Feb. 10	849	{ 206 207 }	54	685
Smith, Lyman D., Waterloo, Nebr. Wheel-wrench	448,553	Mar. 17	2086	523	54	1534
Smith, Lyman C. (See Booth, Chris. S., assignor.)						
Smith, Marcellus T., Northport, N. Y. Thill-coupling	460,041	Sept. 22	2359	590	56	1542
Smith, Matthew B., Tuscaloosa, Ala. Plow	462,780	Nov. 10	884	232	57	730
Smith, Michael H., Halifax, England. Electric railway	457,382	Aug. 11	775	199	56	684
Smith, Millard F. (See Firestone, Truman L., assignor.)						
Smith, Milton E. (See Brinkerhoff and Smith.)						
Smith, Nathan J., Pontiac, Mich. Apparatus for operating semaphores	446,479	Feb. 17	1608	{ 394 395 }	54	845
Smith, Nathaniel E., assignor to himself and P. E. Martin, Jersey City, N. J. Type-frame for chases	451,625	May 5	280	67	55	632
Smith, Nathaniel E., assignor of one-half to P. E. Martin, Jersey City, N. J. Pipe-connection	456,781	July 28	2282	{ 626 627 }	56	478
Smith, Nelson, and A. B. Marcey, Walkell, assignors to New York Condensed Milk Company, New York, N. Y. Bottle-filling machine	457,229	Aug. 4	465	122	56	620
Smith, Nicolaus, Gellivare, assignor to R. F. Smith, Stockholm, Sweden. Wheel for railway-cars	464,527	Dec. 8	807	197	57	1298
Smith, Oliver P., Folk, Ohio. Fruit-picker	459,660	Sept. 15	1779	447	56	1424
Smith, Orbin F., Osceola, Iowa. Hoisting-machine	464,190	Dec. 1	280	69	57	1188
Smith, Orren M., Philadelphia, Pa. Decorating metallic surfaces	446,300	Feb. 10	1327	323	54	774
Smith, Oscar T., Durham, N. C. Vending apparatus	465,216	Dec. 15	1920	488	57	1519
Smith, Otto W., Denver, Colo. Flat-opening blank-book	454,076	June 16	1349	353	55	1421
Smith, P. Minturn, <i>et al.</i> (See Easton, James W., assignor.)						
Smith, Peter, New York, N. Y. Glass-tube cutter	454,233	June 16	1575	415	55	1465
Smith, Peter D., Springfield, Ohio. Potato-digger	445,206	Jan. 27	1977	511	54	410
Smith Plating Company, C. R. (See Smith, Charles R., assignor.)						
Smith Pneumatic Transfer and Storage Company. (See Smith, Lyman, assignor.)						
Smith, Prudence A., New York, N. Y. Tailor's measure	460,282	Sept. 29	2739	{ 681 682 }	56	1623
Smith, Reuben H., Russellville, Ark. Grate	445,575	Feb. 3	87	21	54	528
Smith, Rexford M. (See Smallwood and Smith.)						
Smith, Richard. (See Palmer, John H., assignor.)						
Smith, Richard, Sherbrooke, Canada. Mixing apparatus	449,259	Mar. 31	3209	809	54	1764
Smith, Richard, Sherbrooke, Canada. Expandible mandrel	452,854	May 26	2271	570	55	1030
Smith, Richard H., Springfield, Mass. Hand printing-stamp	449,831	Apr. 7	289	76	55	57
Smith & Richardson. (See Armstrong, Frederic N., assignor.)						
Smith & Richardson. (See Ingraham, Alexander, assignor.)						
Smith, Robert D., assignor to Western Smoke Preventer Company, Chicago, Ill. Sound-arrestor for steam-jet smoke-preventers	463,606	Nov. 17	2213	523	57	996
Smith, Robert F. (See Smith, Nicolaus, assignor.)						
Smith, Robert M., Cherokee, Iowa. Safety attachment for railway-cars	449,975	Apr. 7	492	122	55	95
Smith, Robert T. F. (See Smith, Will A. M. and R. T. F.)						
Smith, Robert W., New York, and H. L. Arnold, Brooklyn, N. Y., assignors to said Arnold, and F. W. Roebeling, Trenton, N. J. Book-binder's machine	449,595	Mar. 31	3781	949	54	1868
Smith, Rose, Grand Rapids, Mich. Jelly-extractor	461,372	Oct. 13	1297	328	57	258
Smith, Roswell T., Nashua, N. H. Brake-actuating device	446,935	Feb. 24	2340	581	54	994
Smith, Roswell T., Nashua, N. H. Mail-bag fastening	452,148	May 12	1137	288	55	796
Smith, Roswell T., Nashua, N. H. Street-railway switching device	459,418	Sept. 15	1381	346	56	1350
Smith, Roswell T., Nashua, N. H. Street-railway switching device	459,419	Sept. 15	1382	347	56	1351

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Smith, Rudolph C. (See Otis and Smith.)						
Smith, Rudolph C., Yonkers, N. Y., Slide-rule for logarithmic calculations	450,640	Apr. 21	1548	372	55	319
Smith, Rudolph C., Yonkers, N. Y., assignor, by mesne assignments, to National Company, of Illinois. Testing-switch for electric circuits	458,961	Sept. 1	641	157	56	1190
Smith, Rudolph C., Yonkers, N. Y., assignor, by mesne assignments, to National Company, of Illinois. Controlling device for motors	459,189	Sept. 8	1011	247	56	1268
Smith, Rudolph C., Yonkers, N. Y., assignor, by mesne assignments, to National Company, of Illinois. Electric elevator	460,541	Sept. 29	3146	786	56	1702
Smith, Rudolph C., Yonkers, assignor to Otis Brothers & Company, New York, N. Y. Gear-wheel	458,984	Sept. 1	681	166	56	1198
Smith, Samuel, Chicago, Ill. Rotary steam-engine	453,247	June 2	106	29	55	1168
Smith, Samuel W., New York, N. Y. Telegraph-transmitter	447,166	Feb. 24	2742	679	54	1069
Smith, Sanford S. (See Wood and Smith.)						
Smith, Sarah G., Cleveland, Ohio. Hearth cabinet	444,076	Jan. 6	153	38	54	33
Smith & Sayre Manufacturing Company. (See Ryder, Charles M., assignor.)						
Smith, Seymour G. (See Ryan, John, assignor.)						
Smith, Sidney E., and T. Barnshaw, Brooklyn, N. Y. Lighting device for cigars, cigarettes, &c.	464,397	Dec. 1	605	149	57	1249
Smith, Stephen R., assignor of one-half to G. W. Detharding, Belleville, Ill. Adjustable window-shade	460,345	Sept. 29	2836	705	56	1642
Smith, Steven E., assignor of one-half to I. Simpson, Birmingham, Ala. Lubricator	464,443	Dec. 1	669	164	57	1262
Smith, Sylvester, Guilford, Ill. Shears-sharpener	458,004	Aug. 18	1778	464	56	884
Smith, Thomas. (See Chambers and Smith.)						
Smith, Thomas, Chapeltown, England. Apparatus for extracting coke from ovens	446,936	Feb. 24	2342	582	54	995
Smith, Thomas B. (See Hollin and Smith.)						
Smith, Thomas C., Philadelphia, Pa. Electric-lamp bracket	444,466	Jan. 13	763	199	54	159
Smith, Thomas C., Philadelphia, Pa. Bracket for electric lamps	453,248	June 2	108	30	55	1169
Smith, Thomas C., Philadelphia, Pa. Insulator-support	463,172	Nov. 17	1521	396	57	863
Smith, Thomas C., and B. D. Acker, assignors to I. C. Walker and H. G. Kepler, Philadelphia, Pa. Means for turning on and off electric currents	465,805	Dec. 22	2858	732	57	1710
Smith, Thomas E. (See Brown and Smith.)						
Smith, Thomas E., New Castle, Pa. Bracket-bed	447,167	Feb. 24	2745	679	54	1069
Smith, Thomas L., Milwaukee, Wis. Feed connection for drill-presses and other machines	446,892	Dec. 29	3017	772	57	1749
Smith, Thomas L., Reedsburg, assignor to Milwaukee Carving Company, Milwaukee, Wis. Feeding mechanism for carving machines	452,241	May 12	1281	323	55	825
Smith, Thomas L., Reedsburg, assignor to Milwaukee Carving Company, Milwaukee, Wis. Carving-machine	452,322	May 12	1419	{ 351 352 }	{ 55 55 }	{ 850 850 }
Smith, Thomas L., and P. W. Post, Reedsburg, Wis. Carving-machine	447,796	Mar. 10	867	215	54	1298
Smith, Valentine H., Sherly, Tex. Plotter	448,685	Mar. 24	2320	581	54	1585
Smith, Walter E., Cleveland, Ohio. Drift	462,456	Nov. 3	377	93	57	622
Smith, Walter F., assignor to United Gas Improvement Company, Philadelphia, Pa. Cut-out for electric lamps	456,327	July 21	1622	429	56	327
Smith, Walter M., Newcastle-upon-Tyne, England. Compound engine	464,833	Dec. 8	1271	{ 318 319 320 }	{ 57 57 57 }	{ 1387 1387 1387 }
Smith, Walton D., assignor of one-half to G. Seyller, Prophetstown, Ill. Paper bag	444,527	Jan. 13	862	224	54	180
Smith, Will A. M., and R. T. F., Morrison, Ill. Electric post-office box	455,126	June 30	3072	782	55	1762
Smith, Willard A., Glendale, N. Y. Handle for wash-boilers	459,314	Sept. 8	1198	291	56	1307
Smith, William, Mystic, Iowa. Stump-puller	449,596	Mar. 31	3783	949	54	1869
Smith, William, Mystic, Iowa. Stump-extractor	457,798	Aug. 18	1425	{ 369 370 }	{ 56 56 }	{ 818 818 }
Smith, William, Boston, Mass. Metal cutter and punch	450,599	Apr. 14	1436	353	55	282
Smith, William, and T. E. Hills, Heron Lake, Minn. Leg-spreader for horses	454,885	June 30	2626	673	55	1675
Smith, William A., Philadelphia, Pa. Thumb-stamp	446,540	Feb. 17	1704	418	54	863
Smith, William B., Atlanta, Ga. Cotton-hoe	461,133	Oct. 13	892	231	57	179
Smith, William B., assignor of one-half to G. W. McCarty, Atlanta, Ga. Car-axle bearing	444,943	Jan. 20	1566	{ 401 402 }	{ 54 54 }	{ 321 321 }
Smith, William C. (See Smith, Hugh and W. C.)						
Smith, William C., et al. (See Mitchell, James C., assignor.)						
Smith, William C., Warsaw, Mo. Lock	449,830	Apr. 7	286	76	55	57
Smith, William C., Warsaw, Mo. Lock	454,077	June 16	1351	353	55	1421
Smith, William C., Warsaw, Mo. Door-spring	454,078	June 16	1352	353	55	1421
Smith, William E., Bridgeport, Conn., assignor to B. Goodman, New York, N. Y. Buckle	450,110	Apr. 7	683	173	55	174
Smith, William F. (See Henderson, Neely T., assignor.)						
Smith, William F. (See Selle, Herman C., assignor.)						
Smith, William F., Chicago, Ill. Combined building and water-tower	446,897	Feb. 24	2275	{ 566 567 }	{ 54 54 }	{ 983 983 }
Smith, William G., Binghamton, N. Y. Wagon-wrench	444,571	Jan. 13	937	243	54	194
Smith, William G., and J. E. Kohrer, New Haven, Conn. Car-coupling	460,225	Sept. 29	2643	659	56	1605
Smith, William H. (See Brookes, Leonard E., assignor.)						
Smith, William H., et al. (See Duley, Benjamin, assignor.)						
Smith, William H., Fort Lavaca, Tex. Gate	447,374	Mar. 3	159	44	54	1148
Smith, William R., Exeter, N. H. Rubber boot	447,497	Mar. 3	358	94	54	1191
Smith, William S., Lock Haven, Pa. Composition for roof coating	452,086	May 12	1032	.....	55	777
Smith, William W., Newcastle-upon-Tyne, England. Anchor	451,582	May 5	207	49.50	55	619
Smith, William Y., Esbon, Kans. Lister-cultivator	456,005	July 14	1130	296	56	223
Smith, Wright D., assignor to Huyett & Smith Manufacturing Company, Detroit, Mich. Dust-collector	451,139	Apr. 28	2316	574	55	474
Smith, Zalmon W., Addison, N. Y. Stanchion	462,172	Oct. 27	2626	655	57	525
Smithson, Henry B., et al. (See Ellis, Josiah W., assignor.)						
Smutter, Louis, and P. Duhamel, Paris, France. Telescopic scaling or fire-escape ladder	445,720	Feb. 3	335	88	54	579
Smyser, Henry E., Philadelphia, Pa. Package making and filling machine	449,275	Mar. 31	3228	{ 816 817 818 819 }	{ 54 54 54 54 }	{ 1767 1767 1767 1769 }
Smyser, Henry E., Philadelphia, Pa. Automatic weighing-machine	449,276	Mar. 31	3237	819	54	1769
Smyth, Adolphus A., Nashville, Tenn. Metallic shingle	453,707	June 9	842	218	55	1314
Smyth, George A., et al. (See Farlow, John S., assignor.)						
Smyth, Samuel, Ithaca, N. Y. Water-motor	445,705	Feb. 3	312	83	54	574
Smyth, Thomas A., et al. (See Farlow, John S., assignor.)						
Smyth, Thomas A., et al. (See Munger, Lyman F., assignor.)						
Smythe, Augustine I., et al. (See Memminger, Allard, assignor.)						
Snaman, George W., Jr., Allegheny, Pa. Combined trunk and bed	448,554	Mar. 17	2086	523	54	1534
Snaman, George W., Jr., Allegheny, Pa. Combined bed and trunk	466,194	Dec. 29	3512	899	57	1844

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Snebold, Fred C. (See Quinn and Snebold.)						
Snedden, William T., assignor, by mesne assignments, to Electric Street and Station Indicator Company, San Francisco, Cal. Street or station indicator	456,006	July 14	1131	297	56	223
Snedeker, Elmer M., Fieldon, Ill. Car-coupling	465,682	Dec. 22	2686	685	57	1674
Snedekor, Charles T., New York, N. Y. Mold for letters and analogous symbols	457,975	Aug. 18	1730	453	56	875
Snedekor, Charles T., New York, N. Y. Letter for signs, &c	457,976	Aug. 18	1730	453	56	875
Snedekor, Charles T., New York, N. Y. Electric conductor	463,079	Nov. 10	1360	352	57	824
Snediker, James F. (See Archibald and Snediker.)						
Snell, Adolphus G., New Haven, Conn. Canopy-holder for children's carriages	461,373	Oct. 13	1298	328	57	259
Snell, Joseph H., Athens, Pa. Elevator for removing tan-bark from vats	452,509	May 19	1731	436	55	916
Snell, Luther C., Detroit, Mich. Means for storing and handling petroleum oil	444,731	Jan. 13	1180	{ 304 305 }	{ 54 54 }	239
Snell, Luther C., Detroit, Mich., assignor to Liquid Supply Company, Olean, N. Y. Device for burning crude petroleum	446,796	Feb. 17	2088	520	54	939
Snell, Robert B., Monument, Kans. Seeding attachment for disk cultivators	469,366	Sept. 29	2370	716	56	1647
Snellenburg, Samuel. (See Booth, Charles P., assignor.)						
Snellenburg, Samuel, Philadelphia, Pa., and C. P. Booth, Camden, N. J. Insole	450,920	Apr. 21	1973	484	55	399
Snellenburg, Samuel, Philadelphia, Pa., and C. P. Booth, Camden, N. J. Registering toy savings-bank	454,886	June 30	2627	673	55	1675
Sneath, Jacob F., et al. (See Philpot, William H., assignor.)						
Snippen, Chris. O., Warren Mills, Wis. Sleigh-knee	458,294	Aug. 25	2239	547	56	979
Snobble, William, South Haven, Mich. Potato-bug destroyer	461,551	Oct. 20	1646	402	57	330
Snoddy, Abner, assignor to M. Snoddy, Bellefontaine, Ohio. Wheel	447,797	Mar. 10	869	216	54	1289
Snoddy, Minnie. (See Snoddy, Abner, assignor.)						
Snooks, Henry, Jersey City, N. J. Automatic steam vacuum-pump	469,069	Oct. 27	2465	611	57	494
Snow, Andrew, Jr., New Bedford, Mass. Feeding-up device for cutting and polishing tools	452,293	May 12	1363	340	55	840
Snow, Frank A., David City, Neb. Stove-pipe fastener	447,168	Feb. 24	2745	679	54	1070
Snow, Frederick, Lynn, Mass., assignor to National Carving Company, Kittery, Me. Cutting-tool for carving-machines	455,064	June 30	2974	757	55	1744
Snow, George B., Buffalo, N. Y. Vulcanizing rubber dentures	454,079	June 16	1353		55	1421
Snow, George B., Buffalo, N. Y. Dental vulcanizing apparatus	465,735	Dec. 22	2751	702	57	1689
Snow, George M., Somerville, Mass. Game-board	456,069	July 14	1217	320	56	240
Snow, Henry E., assignor of one-half to C. F. Mendel, Albany, N. Y. Cuff-holder	466,311	Dec. 29	3697	943	57	1879
Snow, Henry H., Brooklyn, N. Y. Box-lid fastener	460,834	Oct. 6	461	117	57	92
Snow, Henry H., Brooklyn, N. Y. Device for cleansing tumblers, &c	461,223	Oct. 13	1059	268	57	211
Snow, Massena H., Sugar Grove, Ill. Plow attachment	444,715	Jan. 13	1142	294	54	233
Snow, Sarah E. (See Kenchan, Gilbert P., assignor.)						
Snow, Walter B., Watertown, assignor to E. F. Sturtevant Company, Boston, Mass. Electric blower or fan	463,585	Nov. 17	2175	574	57	988
Snow, William H., High Point, N. C., assignor to Modern Tobacco Barn Company, of North Carolina. Curing tobacco	448,595	Mar. 17	2156		54	1547
Snow, William H., assignor to Modern Tobacco Barn Company, High Point, N. C. Basket-mold	450,111	Apr. 7	684	173	55	134
Snow, William H., assignor to Modern Tobacco Barn Company, High Point, N. C. Basket	450,112	Apr. 7	686	174	55	134
Snow, William H., assignor to Modern Tobacco Barn Company, High Point, N. C. Basket	450,113	Apr. 7	687	174	55	134
Snow, William H., assignor to Modern Tobacco Barn Company, High Point, N. C. Basket-mold	450,114	Apr. 7	688	174	55	135
Snow, William H., Holyoke, assignor to C. S. Waldo, Boston, Mass. Gas-retort furnace	462,021	Oct. 27	2399	595	57	482
Snowden & Cowman. (See Carrick, Thomas J., assignor.)						
Snyder, Abraham B., Louisville, Ohio. Automatic railway-signal	458,198	Aug. 25	2062	534	56	946
Snyder, Charles L., et al. (See Brock, Thomas, assignor.)						
Snyder, Hiram. (See Noble and Snyder.)						
Snyder, J. H. (See Walker, Orlando O., assignor.)						
Snyder, John T., Luzerne, Pa. Drill-bit	444,026	Jan. 6	69	18	54	16
Snyder, John W. (See Clerget, John B., assignor.)						
Snyder, Leondo H., Sharon, Pa. Speaking-tube attachment for telephones	463,556	Nov. 17	2123	560	57	978
Snyder, Oscar J., Shoup, Mich. Tongue attachment	446,237	Feb. 10	1223	299	54	754
Snyder, Sampson K., et al. (See Harrison, Leonard S., assignor.)						
Snyder, Waldo V., Canton, Ohio. Toy	453,673	June 9	778	201	55	1303
Snyder, Washington C. (See Shinn, John, assignor.)						
Snyder, William D., Petoskey, Mich. Automatic lathe for turning handles	456,317	July 21	1604	424	56	323
Snyder, William D., assignor to Sugg and Beiersdorf Company, Chicago, Ill. Combined wash-stand and table	463,220	Nov. 17	1591	414	57	876
Snyder, William D., assignor to Sugg and Beiersdorf Company, Chicago, Ill. Folding bedstead	463,221	Nov. 17	1592	415	57	876
Snyder, William H., Akron, Ohio, assignor of one-half to I. W. Hewitt. Street-railway switch	461,786	Oct. 20	2025	500	57	401
Snyder, William W., et al. (See Richardson, Millard F., Sr., assignor.)						
Snyers, Raymond, Brussels, Belgium. Device for transmitting and absorbing power	458,257	Aug. 25	2163	530	56	966
Sobey, William, assignor to J. I. Case Plow Works, Racine, Wis. Sulky-plow	462,416	Nov. 3	318	78, 79	57	611
Sobinski, Charles O. (See Sparks and Sobinski.)						
Soblik, Max, assignor to P. Adolph, Berlin, Germany. Telautograph	461,152	Oct. 13	923	239	57	184
Sobolewski, Otto C., assignor of one-half to G. Suckart, Cincinnati, Ohio. Clothes-rack	461,964	Oct. 27	2316	574	57	466
Sobotka, Gustav, assignor to Fleischmann & Co., New York, N. Y. Guard for fermenting-vats	444,944	Jan. 20	1567	402	54	321
Sobotka, Gustav, assignor to Fleischmann & Co., New York, N. Y. Making vinegar	458,985	Sept. 1	682	166	56	1198
Sobotka, Gustav, assignor to Fleischmann & Co., New York, N. Y. Producing clear wort	458,986	Sept. 1	683	166	56	1199
Soby, Charles. (See Gray, William, assignor.)						
Société Anonyme Dite Imprimerie et Librairie Centrales des Chemins de Fer—Imprimerie Chaix. (See Chaix, Alban, assignor.)						
Société Anonyme Française des Bascules Automatiques. (See Couder, Michael A., assignor.)						
Société de Fondation des Chemins de Fer Glissants Perfectionnés. (See Barre, Charles A., assignor.)						
Société Générale des Téléphones. (Réseaux Téléphoniques et Constructions Électriques.) (See Berthon, Louis A., assignor.)						
Société Industrielle. (See Chopard, Albert, assignor.)						
Society of Chemical Industry. (See Schmid, Jakob, assignor.)						
Suckman, Bryant R., Mount Vernon, Ohio. Hay elevator and carrier	457,856	Aug. 18	1521	396	56	837
Soda Improvements Company. (See Ellershausen, Francis, assignor.)						
Soden, Francis H., Chicago, Ill. Electrical street and station indicator	448,378	Mar. 17	1822	{ 459 460 }	{ 54 54 }	1483
Söderberg, Charles E., Worcester, Mass. Making split spindles for weaving shuttles	458,507	Aug. 25	2585	630	56	1044
Soderstrom, Carl G., Denver, Colo. Photograph-exhibitor	463,537	Nov. 17	2124	{ 560 561 }	{ 57 57 }	979

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Soebren, John H., Eversly, Iowa. Hay-rake.....	463,461	Nov. 17	1969	514	57	950
Sofge, John. (See Passel and Sofge.)						
Soggs, Clayton. (See Soggs, Henry and C.)						
Soggs, Henry and C., assignors of two-thirds to W. S. Cameron and C. E. Weeks, James-town, N. Y. Mail-bag catcher.....	454,387	June 16	1808	471	55	1508
Sohège, Paul, Paris, France. Lock for vehicle-doors.....	451,296	Apr. 28	2586	638	55	526
Sohn, Edward C., Galesburg, Ill. Necktie-fastener.....	455,801	July 14	825	215	56	168
Sohlnemann, Johann, Berlin, Germany. Music-box.....	445,093	Jan. 20	1787	460	54	365
Solar Refining Company. (See Frasch, Herman, assignor.)						
Soley, William H. (See Wolstencroft and Soley.)						
Soley, William H., Philadelphia, Pa. Electrical automatic fire-extinguisher for buildings.....	461,087	Oct. 13	835	215	57	168
Sollenberger, R. H., et al. (See Kyle, Augustus G. and E. J., assignors.)						
Solliday, Edward R., Lambertville, N. J. Pad for copying-books.....	451,340	Apr. 28	2646	{ 654 655 }	{ 55	538
Solliday, Wilson B., et al. (See Guiley, Augustus H. R., assignor.)						
Solmans, Alden. (See Woolson, Egbert, assignor.)						
Solomon, Daniel H., Glenwood, Iowa. River-channel plow.....	449,184	Mar. 31	3091	{ 779 780 780 781 }	{ 54	1741
Solomon, Daniel H., Glenwood, Iowa. Device for preventing banks from caving.....	449,185	Mar. 31	3095	{ 780 781 }	{ 54	1742
Solon, John T. (See Young, William F., assignor.)						
Soltmann, Edward G. (See Birkmire, William H., assignor.)						
Soltmann, Edward G., New York, N. Y., and H. E. Grabau, Hoboken, N. J. Leveling-instrument.....	446,956	Feb. 24	2367	589	54	999
Solvay, Ernest, Brussels, Belgium, assignor to Solvay Process Company, Syracuse, N. Y. Distilling hydrochloric acid.....	453,986	June 9	1222	317	55	1390
Solvay Process Company. (See Solvay, Ernest, assignor.)						
Soly, Irene N. and S., Montreal, Canada. Station-indicator.....	459,215	Sept. 8	1053	{ 256 257 }	{ 56	1277
Soly, Sabin. (See Soly, Irene N. and S.)						
Somerby, Lorenzo B., Newark, N. J. Dumb-bell.....	460,270	Sept. 29	2719	677	56	1619
Somerlad, Philip W., assignor to M. Debatin, St. Louis, Mo. Interfering-boot for horses.....	459,661	Sept. 15	1780	447	56	1425
Somers, Daniel M., et al. (See Atkinson, William H., assignor.)						
Somers, Daniel M., assignor to himself, J. L. and G. A. Somers, W. H. Atkinson, and E. E. Somers, Brooklyn, N. Y. Cylinder printing-press.....	454,776	June 23	2423	622	55	1633
Somers, E. E., et al. (See Somers, Daniel M., assignor.)						
Somers, Elmer E., et al. (See Atkinson, William H., assignor.)						
Somers, G. A., et al. (See Somers, Daniel M., assignor.)						
Somers, Guy A., et al. (See Atkinson, William H., assignor.)						
Somers, J. L., et al. (See Somers, Daniel M., assignor.)						
Somers, Joseph L., et al. (See Atkinson, William H., assignor.)						
Somers, William, Atlantic City, N. J. Clothes-line stretcher.....	444,320	Jan. 6	532	138	54	106
Somers, William P., et al. (See Johnson, Oliver, assignor.)						
Somerville, William, Sr., Buffalo, N. Y. Horseshoe.....	447,416	Mar. 3	236	60	54	1162
Sommer, Adolph, Berkeley, Cal. Neutralizing sulpho-chlorinated oils.....	451,531	May 5	127	55	604	
Sommer, Adolph, Berkeley, Cal. Lubricant.....	461,513	Oct. 20	1591	57	320	
Sommer, Adolph, Berkeley, Cal. Removing free hydrochloric acid from sulpho-chlorides.....	463,875	Nov. 24	2645	689	57	1085
Sommer, Frank, Bronaugh, Mo. Steam-boiler.....	459,463	Sept. 15	1448	364	56	1363
Sommer, Louis. (See Bushey and Sommer.)						
Sommerfeld, August, St. Louis, Mo. Ironing-board.....	446,169	Feb. 10	1093	268	54	729
Sommerfeld, Heinrich, Canton, Kans. Car-coupling.....	447,375	Mar. 3	160	44	54	1148
Sonden, Klas G. A., assignor to J. Bernström, Stockholm, Sweden. Apparatus for determining the refraction of liquids.....	454,989	June 30	2829	720	55	1715
Sondheim, Lewis H., New York, N. Y. Pencil.....	452,242	May 12	1283	323	55	826
Sonia, Raymond, et al. (See Roche, Francis J., assignor.)						
Sonnemann, August, assignor of one-half to A. Engel, Milwaukee, Wis. Hinge.....	464,269	Dec. 1	425	101	57	1215
Sonner, Andrew J., Milltown, Ind. Hame-fastener.....	463,080	Nov. 10	1362	352	57	825
Sonneschein, Monroe, St. Louis, Mo. Sash-fastener.....	452,200	May 12	1223	309	55	812
Sonnesen, Christian, Torrington, Conn. Bicycle.....	460,453	Sept. 29	2921	745	56	1668
Sootbill, John, Johnston, assignor of one-half to J. Fletcher, Providence, R. I. Dabbing-brush-actuating mechanism for wool-combing machines.....	462,598	Nov. 3	596	147	57	666
Sooy, Ephraim C. (See Puntney and Sooy.)						
Sooy, Ephraim C., Kansas City, Mo. Baling-press power.....	456,239	July 21	1487	395	56	301
Soper, Joseph, Ypsilanti, Mich. Machiue for sewing looped fabrics.....	444,859	Jan. 20	1420	{ 368 369 }	{ 54	293
Sorensen, Niels G., Stockholm, Sweden. Handle for locks and latches.....	448,379	Mar. 17	1827	460	54	1484
Sorenson, Joseph, Chicago, Ill. Planing-machine.....	460,187	Sept. 29	2585	644	56	1593
Sornborger, Martin M., Round Mountain, Cal. Hay raking and elevating machiue.....	461,374	Oct. 13	1300	{ 328 329 }	{ 57	259
Souder, Jacob J., Washington, D. C. Dumping-car.....	463,173	Nov. 17	1522	396	57	863
Souder, Jacob J., Washington, D. C. Dumping-car.....	464,086	Dec. 1	120	30	57	1160
Souder, Jacob J., Washington, D. C. Dumping-car.....	464,087	Dec. 1	122	31	57	1160
Souder, Jacob J., Washington, D. C. Dumping-car.....	464,639	Dec. 8	966	{ 239 240 }	{ 57	1330
Soule, Charles E., New Bedford, Mass. Clip.....	456,743	July 28	2324	613	56	468
Soulé, George W., Meridian, Miss. Frictional gearing.....	450,302	Apr. 14	981	244	55	195
Sound Arrester Manufacturing Company. (See Nashold, Elias, assignor.)						
South Bend Iron Works. (See Anderson, Charles, assignor.)						
South, Philip T. (See Blaine and South.)						
Southard, Abraham M., and G. W. Smith: said Smith assignor to said Southard and J. H. Blood, Denver, Colo. Screw-beading machine.....	450,262	Apr. 14	924	229	55	184
Southard, Barron D., et al. (See Dean, James H., assignor.)						
Southard, Barron D., assignor to Chicago Electric Motor Company, Chicago, Ill. Armature for dynamos or electric motors.....	463,174	Nov. 17	1524	{ 396 397 }	{ 57	863
Southard, Frank, Southampton, England. Manufacturing pedal-crank for velocipedes.....	445,303	Jan. 27	2116	548	54	437
Southard, Thomas W., Mount Sterling, Ohio. Combination-tool.....	453,387	June 2	317	83	55	1207
Souther, Calvin N., Chicago, Ill. Galvanic battery.....	461,965	Oct. 27	2317	575	57	466
Souther, Charles H., Boston, and J. E. Chapman, Needham, Mass.; said Chapman assignor to said Souther. Scow.....	459,420	Sept. 15	1384	347	56	1351
Souther, Charles H., Boston, and J. E. Chapman, Needham, Mass.; said Chapman assignor to said Souther. Hoisting-bucket.....	460,708	Oct. 6	288	70	57	57
Souther, Charles J. (See Saunders, Thomas H., assignor.)						
Souther, George, Boston, Mass. Corrugated hoop for barrels, &c.....	449,597	Mar. 31	3785	950	54	1869

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Southern Cotton Harvester Company. (See House, James A., assignor.)						
Southern, Richard. (See Stephan and Southern.)						
Southrey, John N., Stockton, Cal. Rein-guard.....	462,173	Oct. 27	2628	655	57	526
Southward, David H., Coraopolis, Pa. Railway-tie.....	453,721	June 9	858	222	55	1318
Southwark Foundry and Machine Company. (See Good, William E., assignor.)						
Southwark Foundry and Machine Company. (See Good and Lindroth, assignors.)						
Southwark Foundry and Machine Company. (See Mirkil, Thomas H., Jr., assignor.)						
Southwestern Supply Company. (See Stowe, James G., assignor.)						
Southwick, Plin C., Newark, Ill. Baling-press.....	458,641	Sept. 1	146	34, 35	56	1094
Southworth, A. W. (See Seaton, Benjamin C., assignor.)						
Southworth, Dean, Braintree, Mass. Watch-case opener.....	451,982	May 12	834	213	55	745
Soutter, Robert, assignor of one-half to F. A. Haines, Chicago, Ill. Car-axle-box lid.....	461,203	Oct. 13	1021	259	57	202
Souza, Virissimo B. de, Pernambuco, Brazil. Vessel for submarine or surface navigation.....	453,560	June 2	594	151	55	1260
Spaeth, Edward. (See Day, Charles T., assignor.)						
Spaethe, Wilhelm O., Gera, Germany. Mechanical musical instrument.....	457,445	Aug. 11	863	224	56	701
Spahmer, Charles, assignor to E. Promis, Philadelphia, Pa. Scraper for boots or shoes.....	444,716	Jan. 13	1142	294	54	233
Spahn, Rudolph, Brooklyn, N. Y. Button-hole sewing-machine.....	444,467	Jan 13	763	199	54	160
Spain, Job, assignor of one-half to C. Mains, Belle Centre, Ohio. Folding crate.....	449,007	Mar. 24	2815	713	54	1680
Spangler, Daniel F., <i>et al.</i> (See Green, John, assignor.)						
Spangler, Daniel F., A. S. and G. W. Good, Renovo, Pa. Wagon-jack.....	458,379	Aug. 25	2383	581	56	1005
Spangler, Jacob R., assignor of one-half to A. P. Baldwin, Newark, N. J. Sheet-metal- edging machine.....	448,380	Mar. 17	1828	461	54	1484
Spare, George E., New Haven, Conn. Convertible carriage.....	447,547	Mar. 3	460	113	54	1204
Spalding, John L., Aitkin, Minn. Check, draft, or other money order or instrument.....	455,127	June 30	3073	782	55	1762
Spalsbury, Charles C., East Orange, N. J. Fan attachment for rocking-chairs.....	451,187	Apr. 28	2407	595	55	490
Spalsbury, Charles C., East Orange, N. J. Fan attachment for rocking-chairs.....	451,188	Apr. 28	2411	595 596	55	491
Sparham, Terence, assignor of one-half to T. J. B. Harding, Brockville, Canada. Artificial arm.....	450,476	Apr. 14	1261	308	55	247
Sparham, Terence, assignor of one-half to T. J. B. Harding, Brockville, Canada. Artificial limb.....	452,048	May 12	954	243	55	765
Sparks, Charles H., St. Louis, Mo. Jail.....	455,128	June 30	3074	782 783	55	1762
Sparks, Charles H., and C. O. Sobinski, St. Louis, Mo.; said Sobinski assignor to said Sparks. Mechanism for operating and locking jail-doors.....	464,947	Dec. 8	1439	362 363	57	1421
Sparks, John A., and W. S. Brown, Eminence, Ky.; said Sparks assignor to said Brown. Tension device.....	446,842	Feb. 17	2163	538	54	955
Sparks, William E., assignor to Sargent & Company, New Haven, Conn. Padlock.....	456,345	July 21	1649	436	56	332
Sparks, William E., assignor to Sargent & Company, New Haven, Conn. Padlock.....	456,744	July 28	2325	613	56	468
Sparks, William E., assignor to Sargent & Company, New Haven, Conn. Cylinder-lock.....	464,765	Dec. 8	1177	293	57	1368
Sparks, William H., Camden, N. J. Spring for buckboards.....	446,395	Feb. 10	1462	359 360	54	803
Sparr, Benjamin F. (See Sparr, Millard F. and B. F.)						
Sparr, Benjamin F. and M. F., New York, N. Y. Screw-propeller.....	445,864	Feb. 3	580	141	54	625
Sparr, Millard F. (See Sparr, Benjamin F. and M. F.)						
Sparr, Millard F. and B. F., Brooklyn, N. Y. Screw-propeller.....	463,322	Nov. 17	1754	459	57	907
Spaulding Brothers. (See Thompson, Asa H., assignor.)						
Spaulding, Charles F., assignor of one-half to H. I. Illingworth, Waltham, Mass. Gas cooking-stove.....	457,406	Aug. 11	805	207	56	690
Spaulding, Frank M., assignor of one-half to F. C. Balch, Kalamazoo, Mich. Railway-cross- ing gate.....	446,082	Feb. 10	931	228	54	701
Spaulding, Frank M., assignor of one-half to F. C. Balch, Kalamazoo, Mich. Railway-cross- ing gate.....	446,083	Feb. 10	933	228	54	701
Spaulding, Frank M., Kalamazoo, Mich., assignor to E. & H. T. Anthony & Company, New York, N. Y. Photographic shutter.....	462,335	Nov. 3	182	46	57	585
Spaulding, Hollon C., Boston, Mass. Electric-railway switch.....	462,022	Oct. 27	2400	595 596	57	482
Spaulding, Lyman A., Chicago, Ill. Billiard-table.....	453,674	June 9	779	201	55	1303
Spaunhorst, Henry E., St. Louis, Mo. Combined drawer guide and stop.....	461,375	Oct. 13	1303	329	57	259
Speaker, Charles E., Louisville, Ky., assignor, by mesne assignments, to himself, J. B. Hoagland, W. McComb, J. R. McIlwaine, and W. M. Cassetty, Nashville, Tenn. Box- fastener.....	453,516	June 2	541	136	55	1248
Speakman, Thomas H., Ware, assignor to G. Draper & Sons, Hopedale, Mass. Yarn-separ- ator for spinning-machines.....	459,713	Sept. 15	1854	466	56	1440
Spear, Ephraim W., Boston, Mass., assignor to Intelligent Can Company, Portland, Me. Bail-bending machine.....	461,877	Oct. 27	2174	536	57	439
Spear, James, Philadelphia, Pa. Box or casing for street-car stoves.....	449,008	Mar. 24	2817	713	54	1680
Spear, James M., assignor of one-half to H. Swartzwelder, Cumberland, Md. Corpse eye- closer.....	450,980	Apr. 21	2077	513	55	418
Specht, Theodor H., and J. Broenen, Milwaukee, Wis. Wheel-tire.....	457,569	Aug. 11	1061	271	56	740
Speed, James B., Louisville, Ky. Manufacturing hydraulic cement.....	450,750	Apr. 21	1703	.....	55	348
Speed, Joshua, Grand Rapids, Mich. Folding bed and dressing-case.....	454,833	June 23	2529	650	55	1649
Speed, Joshua, Grand Rapids, Mich. Commode.....	456,503	July 21	1910	505	56	381
Speed Registering Company. (See Pomeroy and White, assignors.)						
Speer, John A., Cedar Falls, Iowa. Water-tank.....	460,998	Oct. 13	711	183	57	145
Speer, William W., Pittsburg, Pa. Plow.....	447,498	Mar. 3	388	95	54	1191
Speirs, John, Jersey City, N. J., assignor of one-half to G. F. Richardson, New York, N. Y. Combined diving apparatus and life-saving raft.....	449,354	Mar. 31	3387	853	54	1793
Speirs, John C. (See Torkelson, Reinhard T., assignor.)						
Speiser, David, Jr., <i>et al.</i> (See Philpot, William H., assignor.)						
Spellman, Charles W. (See Dake, Charles M., assignor.)						
Spence, Beverly B., Midland, Tenn. Chain-pump.....	449,598	Mar. 31	3786	950	54	1869
Spence, David D. (See Spence, Francis M. and D. D.)						
Spence, David D. (See Spence and Esilman.)						
Spence, David D., Providence, R. I. Machine for decorticating vegetable fibers.....	464,308	Dec. 1	482	115	57	1226
Spence, E. F. (See Hall, George T., assignor.)						
Spence, Francis M. and D. D., Manchester, England. Manufacture of soda-alum.....	456,294	July 21	1574	.....	56	318
Spence, Francis M. and D. D., Manchester, and A. Esilman, Southport, England. Making soda-alum.....	454,189	Aug. 16	1512	.....	55	1452
Spence, George A., Salem, Mass. Toy apparatus.....	457,593	Aug. 11	1100	281	56	747
Spence, Henry C., Fall River, Mass. Cop-building mechanism for spinning-frames.....	465,217	Dec. 15	1922	489	57	1520
Spence, John. (See Elles and Spence.)						
Spence, John L. (See Aldrich, George W., assignor.)						
Spencer, Abel, and L. B. Kitchel, Penn Yan, N. Y. Road-cart.....	456,386	July 21	1727	456	56	346

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Spencer, Catherine E. (See Spencer, Thomas E., assignor.)						
Spencer, Charles F., assignor to H. C. Merrick, Rochester, N. Y. Seesaw	451,583	May 3	208	50	55	619
Spencer, Christopher M. (See Eddy, Arthur H., assignor.)						
Spencer, Christopher M., Windsor, assignor of one-half to A. H. Eddy, Hartford, Conn. Screw-machine	447,017	Feb. 24	2467	{ 614 615 471 472 }	{ 54 56 }	1018 1443
Spencer, Edmund, Newburg, N. Y. Cloth-shearing machine	459,725	Sept. 15	1874	{ 471 472 }	{ 56 56 }	1443 502
Spencer, Henry B., Catskill, N. Y. Nipple-holder	456,860	July 28	2516	660	56	502
Spencer, Isaac M., Osceola, Ill. Ax	463,002	Nov. 10	1239	323	57	800
Spencer, John C., Anniston, Ala. Flushing device	465,567	Dec. 22	2505	639	57	1640
Spencer, Joseph W. (See Dickson and Jones, assignors.)						
Spencer, Thomas, Pittsburg, Pa. Self-regulating electric converter	457,407	Aug. 11	807	207	56	690
Spencer, Thomas E., assignor to C. E. Spencer, Toronto, Canada. Water-heater	446,301	Feb. 10	1328	323	54	774
Sperry, Alfred W., assignor to himself and G. W. Root, Hartford, Conn. Electric conductor	454,546	June 23	2058	533	55	1564
Sperry, Alfred W., assignor to himself and G. W. Root, Hartford, Conn. Insulating material	454,547	June 23	2059		55	1564
Sperry, Alfred W., assignor to himself and G. W. Root, Hartford, Conn. Compound for the manufacture of insulators, packings, &c.	454,548	June 23	2060		55	1564
Sperry, Barton E., Batavia, Ill. Grinding and polishing machine	446,170	Feb. 10	1094	{ 268 269 }	{ 54 54 }	729 768
Sperry, Charles, Port Washington, N. Y. Micrometer-scale	452,054	May 12	972	247	55	768
Sperry Electric Mining Machine Company. (See Sperry, Elmer A., assignor.)						
Sperry, Elmer A., Chicago, Ill. Electric switch	446,031	Feb. 10	853	207	54	686
Sperry, Elmer A., Chicago, Ill. Commutator	453,822	June 9	1005	262	55	1346
Sperry, Elmer A., Chicago, Ill. Mining-machine	454,500	June 23	1988	{ 516 517 }	{ 55 55 }	1551 137
Sperry, Elmer A., Chicago, Ill. Power-gearing for vehicles. (Reissue.)	11,177	July 7	711	187	56	137
Sperry, Elmer A., Chicago, Ill. Mineral-drilling machine	459,596	Sept. 15	1666	416	56	1403
Sperry, Elmer A., assignor to Sperry Electric Mining Machine Company, Chicago, Ill. System of electrical distribution for mines	446,030	Feb. 10	852	207	54	686
Sperry, John, assignor to C. M. Lane, M. T. Elgar, K. A. Sperry, New York, N. Y., and C. Bloodgood, Morris Plains, N. J. Rotary engine	462,282	Nov. 3	94	24, 25	57	569
Sperry, Kate A., <i>et al.</i> (See Sperry, John, assignor.)						
Sperry, Timothy S., Flatbush, N. Y. Stair pad	446,213	Feb. 10	1163	285	54	742
Sperry, Charles F., Hermann, Mo. Pipe-tongs	444,923	Jan. 20	1531	393	54	315
Sperry, Charles F., Hermann, Mo. Pipe-tongs	466,195	Dec. 29	3513	899	57	1844
Spielman, George D., Cincinnati, Ohio, assignor to A. J. Parlin, Newport, Ky. Padlock	461,134	Oct. 13	893	232	57	179
Spielring, Robert, Hildesheim, Germany. Key-hook	448,381	Mar. 17	1829	461	54	1485
Spies, Adam, Mudgee, New South Wales. Churn	461,933	Oct. 27	2274	563	57	458
Spiller, Harry A., Boston, Mass., assignor to Pneumatic Gun Carriage and Power Company, Wheeling, W. Va. Loading attachment for guns	457,293	Aug. 4	578	153	56	640
Spiller, Harry A., Boston, Mass., assignor to Pneumatic Gun Carriage and Power Company, Wheeling, W. Va. Hydropneumatic operating mechanism for guns	458,345	Aug. 25	2323	567	56	995
Spiller, Harry A., Boston, Mass., assignor to Pneumatic Gun Carriage and Power Company, Wheeling, W. Va. Mechanism for extracting and inserting breech-plugs of heavy guns	458,508	Aug. 25	2586	630	56	1044
Spiller, Harry A., Boston, Mass., assignor to Pneumatic Gun Carriage and Power Company, Wheeling, W. Va. Pneumatic recoil-check for gun-carriages	463,462	Nov. 17	1971	514	57	951
Spiller, Harry A., Boston, Mass., assignor to Pneumatic Gun Carriage and Power Company, Wheeling, W. Va. Pneumatically-operated gun-carriage	463,463	Nov. 17	1974	514	57	951
Spillinger, Joseph, Philadelphia, Pa. Slicer	447,847	Mar. 10	946	237	54	1304
Spindle, Henry C. (See Hickman and Spindle.)						
Spiral Weld Tube Company. (See Phillips, Henry, assignor.)						
Spiro, Charles, New York, N. Y. Type-writing machine	445,333	Jan. 27	2164	561	54	448
Spiro, Charles, New York, N. Y. Type-writing machine	447,438	Mar. 3	272	69	54	1169
Spiro, Charles, New York, N. Y. Type-writing machine	454,080	June 16	1355	{ 353 354 }	{ 55 55 }	1421 961
Spiro, Charles, New York, N. Y. Type-writing machine	458,241	Aug. 25	2140	525	56	961
Spiro, Charles, New York, N. Y. Type-writing machine	464,398	Dec. 1	606	{ 149 150 151 516 }	{ 57 57 57 57 }	1249 951
Spiro, Charles, Englewood, N. J. Type-writing machine	463,464	Nov. 17	1977	{ 515 516 }	{ 57 57 }	951
Spiro, Julius. (See Wendler and Spiro.)						
Spitz, Frederick, assignor to Hercules Waist Band Company, New York, N. Y. Waist-band	446,270	Feb. 10	1274	312	54	763
Spitz, Frederick, assignor to Hercules Waist Band Company, New York, N. Y. Waist-band	449,710	Apr. 7	101	27	55	22
Spittstoser, Ferdinand, North Branch, Minn. Lock-hook	458,779	Sept. 1	349	84	56	1132
Spittstoser, Ferdinand, North Branch, Minn. Hook	460,367	Sept. 29	2872	716	56	1648
Spittstoser, Ferdinand, North Branch, Minn. Sprinkler	460,368	Sept. 29	2872	717	56	1648
Spofoord, John F., Brookline, Mass. Pillow-sham holder	461,990	Oct. 27	2354	584	57	473
Sponsel, Charles W., Hartford, Conn. Breech-loading ordnance	447,376	Mar. 3	161	44, 45	54	1148
Sponsel, Charles W., assignor to Pratt & Whitney Company, Hartford, Conn. Rifling-machine	446,898	Feb. 24	2278	{ 567 568 569 }	{ 54 54 54 }	984
Sponsel, Charles W., assignor to Pratt & Whitney Company, Hartford, Conn. Gun-barrel-drilling machine	447,713	Mar. 3	695	{ 174 175 176 }	{ 54 54 54 }	1249
Spooner, Frederick B., Brooklyn, N. Y. Medicine-dropper	448,555	Mar. 17	2088	524	54	1534
Spooner, Frederick B., Brooklyn, N. Y. Corset-clasp	448,891	Mar. 24	2642	663	54	1646
Spoor, Herbert, Berlin, Wis. Sandpapering-machine	456,861	July 28	2517	{ 660 661 713 714 }	{ 56 56 54 54 }	502 1680
Sporton, Henry H., and E. White, Enfield, England. Rotary fluid-meter	449,009	Mar. 24	2817	{ 713 714 }	{ 54 54 }	1680
Spotts, Daniel L. (See Lippy, David, assignor.)						
Spradlin, William H. H., South Fork, Mo. Sawing-machine	447,982	Mar. 10	1176	298	54	1347
Sprague, Charles A., Ashland, Ohio. Iron bedstead, &c.	455,976	July 14	1085	284	56	215
Sprague, Edward W., Central Square, N. Y. Nut-lock	447,703	Mar. 3	682	169	54	1247
Sprague Electric Railway and Motor Company. (See Lieb, Charles A., assignor.)						
Sprague Electric Railway and Motor Company. (See Sprague, Frank J., assignor.)						
Sprague Electric Railway and Motor Company. (See Sprague and O'Shaughnessy, assignors.)						
Sprague, Frank J., New York, N. Y., assignor to Sprague Electric Railway and Motor Company. Field-magnet for dynamo-electric machines	461,552	Oct. 20	1646	{ 402 403 }	{ 57 57 }	330

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Sprague, Frank J., and J. F. S. Branth, New York, N. Y. Conductor-switch for electric railways	445,515	Jan. 27	2425	{ 632 633	{ 54	498
Sprague, Frank J., and C. R. Pratt, New York, N. Y. Adjustable rheostat	465,218	Dec. 15	1925	489	57	1520
Sprague, Frank J., and P. F. O'Shaughnessy, assignors to Sprague Electric Railway and Motor Company, New York, N. Y. Electric-railway trolley	465,806	Dec. 22	2862	{ 732 733	{ 57	1710
Sprague, Pearley J., Adrian, Mo. Miniature sky-rocket.	457,383	Aug. 11	776	199	56	684
Sprague & Son, Thomas S. (See Whittemore, James, assignor.)						
Sprague, Thomas W., Minneapolis, Minn. Dehorning implement	453,675	June 9	782	201	55	1304
Sprague, William H., Brooklyn, N. Y. Overshoe	454,143	June 16	1443	377	55	1439
Spraker, Henry G., Rich Hill, Mo. Paper-cutter.	444,106	Jan. 6	195	48	54	41
Sprigg, Patterson, <i>et al.</i> (See Smith, Clayton P., assignor.)						
Spriggs, Thomas, Little River, Kans. Bolt-grip	455,645	July 7	562	145	56	109
Spring, Charles A., D. Springer, H. T. Spring, Royer's Ford, and R. Steel, Philadelphia, Pa. Heater for railway-cars, &c.	464,322	Dec. 1	500	{ 119 120	{ 57	1229
Spring, Henry T. (See Spring, Springer, Spring, and Steel.)						
Spring, Albert O., assignor to Bailey Auger Bit Company, Lancaster, Ohio. Manufacture of single-spiral augers	453,052	May 26	2597	657	55	1093
Springer, Alfred, Cincinnati, Ohio. Sound-board for musical instruments	444,770	Jan. 13	1242	323	54	251
Springer, Alfred, Cincinnati, Ohio. Violin	451,863	May 5	630	156	55	698
Springer, Alfred, Cincinnati, Ohio. Producing alcohol	457,799	Aug. 18	1428		56	819
Springer, Amos W., and J. T. Jackson, Leando, Iowa. Wire-stretcher.	449,808	Apr. 7	252	64	55	50
Springer Automatic Car Coupler Company. (See Springer, Stephen H., assignor.)						
Springer, David. (See Spring, Springer, Spring, and Steel.)						
Springer, Stephen H., Des Moines, Iowa. Car-coupling	448,686	Mar. 24	2321	581	54	1586
Springer, Stephen H., assignor to Springer Automatic Car Coupler Company, Des Moines, Iowa. Buffer for railway-cars	463,296	Nov. 17	1710	446	57	899
Springfield Foundry Company. (See Gibbins, James, assignor.)						
Springfield Gas Engine Company. (See Coffield and Paxson, assignors.)						
Springfield Specialty Manufacturing Company. (See Hill, Gilman C., assignor.)						
Springsteen, Silas, Manitowoc, Wis. Church-pew	455,417	July 7	194	50	56	40
Sprinkmann, Frederick, Milwaukee, Wis., assignor of one-half to W. S. Grubb, Chicago, Ill. Non-conducting compound	445,358	Jan. 27	2201		54	456
Sproul, Robert B., assignor of one-half to D. S. Dickson, Quartz, Mont. Gunner's arm-rest.	454,300	June 16	1674	439	55	1444
Sproul, William E. (See Lyon and Sproul.)						
Sproule, William J., Montreal, Canada. Latch for bucket-doors	465,002	Dec. 15	1566	398	57	1454
Sproull, John C., Bedford, Ind. Pipe-wrench	441,372	Jan. 6	609	156	54	120
Sprout, Charles H. (See Waldron and Sprout.)						
Squires, Hattie E., Leavenworth, Kans. Attachment for stoves	457,751	Aug. 11	1349	349	56	797
Squires, Riley, Ogallala, Nebr. Nut-lock	464,591	Dec. 8	896	220	57	1316
St. Clair, Frank, assignor of one-half to J. B. Varick, Manchester, N. H. Low-water alarm	465,767	Dec. 22	2307	719	57	1699
St. Clair, Frank, assignor of one-half to J. B. Varick, Manchester, N. H. Signaling device.	465,768	Dec. 22	2308	719	57	1699
St. John, Clark S. (See Kidney, William F., assignor.)						
St. John, Jacob F., Roanoke, Va. Artificial-stone composition	452,037	May 12	930		55	762
St. John, John C., assignor to E. P. Barry, Boston, Mass. Harp	463,368	Nov. 17	1834	480	57	923
St. John, Mary, New York, N. Y. Bed-pan	448,691	Mar. 24	2327	584	54	1587
St. John, Spencer H., and F. A. Jennings, Chicago, Ill., assignors to Electric Bulletin Company, of Illinois. Advertising-bulletin and train-annunciator	451,282	Apr. 28	2567	633	55	522
St. John, Thomas C., Willoughby, Ohio. Corn-harvester	447,624	Mar. 3	577	{ 142 143	{ 54	1226
St. John, Thomas C., Willoughby, Ohio. Corn-harvester	460,315	Sept. 29	2786	694	56	1632
St. John, William W., Brooklyn, N. Y. Poppet-valve	463,175	Nov. 17	1536	397	57	863
St. Legier, John de, and G. Davis, Hicksville, N. Y. Milk-can	446,573	Feb. 17	1750	431	54	872
St. Louis Car Track Cleaner Company. (See Chambers, Joseph E., assignor.)						
St. Louis Register Company. (See Ehrlich and Keyes, assignors.)						
St. Louis Stamping Company. (See Niedringhaus and Geiss, assignors.)						
St. Pierre, George, Oakland, Cal. Bearing-box	448,462	Mar. 17	1956	492	54	1509
Staber, George, and H. Abbey, Brooklyn, N. Y. Machine for embossing or ornamenting wood, paper, &c.	451,923	May 12	835	{ 213 214	{ 55	745
Stabler, James P., Sandy Spring, Md. Pressure-governor	445,348	Jan. 27	2184	566	54	452
Stack, Maurice, <i>et al.</i> (See Gordon, Minthorne T., assignor.)						
Stackpole, Charles F., Lynn, assignor of one-fourth to J. M. Schofield, Boston, Mass. Leather-staking machine	457,136	Aug. 4	306	81	56	592
Stacy, James N., Minneapolis, Minn. Grain-sampler	460,666	Oct. 6	208	54	57	43
Stacy, Meck H., <i>et al.</i> (See Brittain, James A., assignor.)						
Stacy, W. P. (See Thompson and Cottrell, assignors.)						
Stadelman, William A., assignor to Equitable Engineering and Construction Company, Philadelphia, Pa. Electric crane	460,514	Sept. 29	3098	775	56	1692
Stader, Nathaniel G., Columbus, Ind. Molding-flask	451,237	Apr. 28	2491	615	55	507
Staeding, Hugo, Kiel, Germany. Page-cord lock	451,201	Apr. 28	2433	601	55	495
Staehlin, Charles H., St. Louis, Mo. Plumber's shaving hook and scraper	455,129	June 30	3075	783	55	1763
Stafford, Elmer S. (See Brown and Stafford.)						
Stafford, Frank J., Cleveland, Ohio. Car-starter and brake	464,111	Dec. 1	156	39	57	1167
Stafford, Frederick S., and A. M. Hudson, Baltimore, Md. Gas-cock	454,234	June 16	1575	415	55	1465
Stafford, George W., Providence, R. I. Shuttle-box-operating mechanism for looms	455,772	July 14	771	203	56	157
Stafford, Nelson. (See Berry and Stafford.)						
Stafford, William A. H., New York, N. Y. Feed-stopper for mucilage-bottles	444,142	Jan. 6	270	65	54	56
Stage, Otis, Ligonier, Ind. Straw-stacker	444,732	Jan. 13	1182	{ 305 306	{ 54	240
Stager, Henry E., assignor of one-half to J. E. Woodworth, Milwaukee, Wis. Steam-radiator attachment	456,346	July 21	1650	436	56	332
Stagg, John L., Chicago, Ill., assignor of one-half to C. W. Femm. Car-door	463,201	Nov. 17	1567	{ 408 409	{ 57	871
Stahl, Edgar W. (See Stahl, John, assignor.)						
Stahl, Emiel, Sullivan, Mo. Stove-polish	463,003	Nov. 10	1239		57	800
Stahl, Frederick, and J. S. Rew, St. Armand, Victoria. Apparatus for grinding and amalgamating ores	457,541	Aug. 11	1015	{ 260 261	{ 56	730
Stahl, Herman. (See Dickey, Shaver, Stahl, and Welch.)						
Stahl, John, assignor of one-half to E. W. Stahl, Grinnell, Iowa. Two-wheeled vehicle.	447,499	Mar. 3	390	95	54	1191
Stahlberg, Charles, New York, N. Y., assignor to Accurate Time Stamp Company, of West Virginia. Clock-movement	452,652	May 19	1952	490	55	959
Stahlecker, Erwin. (See Schulz, Heinrich, assignor.)						
Stabler, Frederick W., <i>et al.</i> (See Westerfield, Newton C., assignor.)						
Stahlhuth, Ernst H. W., Columbus, Ind. Extension-table	464,528	Dec. 8	808	197	57	1298

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Staiger, Christoph, Brooklyn, N. Y. Finger-ring	448,892	Mar. 24	2643	664	54	1646
Stainton, Charles H., Toronto, Canada. Combined cinder-sifter and garbage-receptacle	454,887	June 30	2628	674	55	1675
Staley, Albert, Philadelphia, Pa. Flower-pot	465,219	Dec. 15	1927	490	57	1521
Stall, William W. (See Morse, Preston C., assignor.)						
Stamp, James C., Louisville, Ky. Boiler	448,382	Mar. 17	1830	461	54	1485
Stamp, John G., Buffalo, N. Y. Hydraulic elevator	459,309	Sept. 8	1046	254	56	1275
Standard, John, Newark, N. J. Refrigerator	455,891	July 14	958	250 251 689	56	1192
Stanbery, George A., Zanesville, Ohio. Machine for pressing tile, brick, &c.	453,133	May 26	2735	690	55	1120
Stanbrough, William F. C., West Plains, Mo. Sliding and swinging gate	457,230	Aug. 4	467	123	56	620
Standlife, Samuel C., Washington, Pa. Apparatus for finishing necks of bottles, &c.	457,035	Aug. 4	154	37	56	563
Standard Advertising Company. (See Beach and Palm, assignors.)						
Standard, Charles Q., Atlanta, Ga. Smoke-bell hanger	450,799	Apr. 21	1785	434	55	364
Standard Elevator Company. (See Forslund and Wells, assignors.)						
Standard Elevator Company. (See Wells, William H., Jr., assignor.)						
Standard Elevator Company <i>et al.</i> (See Forslund, Hugo W., assignor.)						
Standard Folding Bed Company. (See Ansley, Frederick, assignor.)						
Standard Foundry and Manufacturing Company. (See Aenis, John, assignor.)						
Standard Hub Company. (See Du Bois, Henry L., assignor.)						
Standard Mailing Case Company. (See Kraetzer, Edwin J., assignor.)						
Standard Manufacturing Company. (See Grant, Oscar F., assignor.)						
Standard Multiplex Telegraph Company. (See Brown, Robert G., assignor.)						
Standard Oil Company of New York. (See Hunter, Louis, assignor.)						
Standard Oil Company of New York. (See Morrison, Leonard D., assignor.)						
Standard Rivet Company. (See Bean, Frank, assignor.)						
Standard Rivet Company. (See Craig, Isaac S., assignor.)						
Standard Sewing Machine Company. (See Mack, William A., assignor.)						
Standard Steel Works. (See Stevenson, Joseph P. and W. A., assignors.)						
Standard Tool Company. (See Palmer and Ryder, assignors.)						
Standard Typewriter Manufacturing Company. (See Jenne, William M., assignor.)						
Standard Underground Cable Company. (See Barrett, John A., assignor.)						
Standard Underground Cable Company. (See Conner, William A., assignor.)						
Standard Underground Cable Company. (See Conner and Marsh, assignors.)						
Standard Underground Cable Company. (See Degenhardt, Frederick E., assignor.)						
Standard Underground Cable Company. (See Fisher, Henry W., assignor.)						
Standard Underground Cable Company. (See Marsh, Joseph W., assignor.)						
Standard Underground Cable Company. (See Marsh and Fisher, assignors.)						
Standard Whip Company. (See Avery, George H., assignor.)						
Standifer, William S., Cary, Miss. Instrument for farmers' use on hilly land	463,771	Nov. 24	2474	646	57	1053
Standiford, Emmet C., and S. A. Hyers, Chicago, Ill. Type setting or composing machine	448,735	Mar. 24	2404	601 602	54	1601
Standish, Benjamin F., Woodstock, Vt. Clothes-drier	457,800	Aug. 18	1429	370	56	819
Stanfield, Richard, Edinburgh, Scotland, and T. Clarkson, assignors to Clarkson-Stanfield Concentrator, Limited, London, England. Centrifugal separating-machine	459,315	Sept. 8	1199	292	56	1307
Stanford, Arthur L., Evanston, Ill. Drill-frame	453,748	Dec. 9	897	233	55	1325
Stanford, William R. K., Meridian, Miss. Cook-stove	464,123	June 1	171	42	57	1169
Stanhope, Philip R. (See Ireland and Stanhope.)						
Stanhope, Philip W., Jr., Peoria, Ill. Wheel-plow	447,647	Mar. 3	607	150	54	1232
Staninger, Ezra E., West Salem, Ill. Roll-paper holder and cutter	449,501	Mar. 31	3636	915	54	1842
Stanley, Arthur F., New York, N. Y. Bell	449,832	Apr. 7	294	77	55	58
Stanley, Charley L., Montezuma, Ga. Press-gear	459,316	Sept. 8	1200	292	56	1307
Stanley Drill Power Company. (See Stanley, Thomas, assignor.)						
Stanley, Edward, Bridgeport, Pa. Making paper bags	458,409	Aug. 25	2431	592	56	1015
Stanley, Frank. (See Christian and Stanley.)						
Stanley, Frank F. (See Keith, Jeremiah, assignor.)						
Stanley, Frank F., <i>et al.</i> , trustees. (See Goddu, Louis, assignor.)						
Stanley, John C., and L. B. Wrightson, London, England. Box-closure	448,687	Mar. 24	2322	581 582 215	54	1586
Stanley, John C. W., and J. Russell, London, England. Apparatus for the treatment of city refuse	455,802	July 14	826	216 217 218	56	168
Stanley, John N., Ozark, Ark. Cultivator	456,167	July 21	1364	362	56	278
Stanley Manufacturing Company. (See Richardson, Everett P., assignor.)						
Stanley Rule and Level Company. (See Schade, Edmund A., assignor.)						
Stanley Rule and Level Company. (See Traut, Justus A., assignor.)						
Stanley, T. E., <i>et al.</i> (See Baker, Owen T., assignor.)						
Stanley, Thomas, assignor to Stanley Drill Power Company, Pueblo, Colo. Drilling-machine	445,865	Feb. 3	581	142	54	625
Stanley, William, Jr., Pittsfield, Mass. Electric inductional transformer	461,135	Oct. 13	894	232	57	179
Stanley, William, Jr., Great Barrington, Mass., assignor to Westinghouse Electric and Manufacturing Company, Pittsburg, Pa. Self-exciting alternate-current electric generator	450,641	Apr. 21	1549	373	55	319
Stanley, William, Jr., Pittsfield, Mass., and J. F. Kelly, New York, N. Y. Alternating-current motor	455,773	July 14	772	203	56	157
Stanley, William, Jr., Pittsfield, Mass., and J. F. Kelly, New York, N. Y. Means for preventing the interference with speech on telephone-circuits by induced or other currents	464,529	Dec. 8	809	198	57	1298
Stanly, Merritt F., Northville, Mich. Air-gun	461,224	Oct. 13	1060	268	57	211
Stanly, Merritt F., Northville, assignor of one-half to Anderson Bros., Plymouth, Mich. Spring air-gun	454,081	June 16	1358	354	55	1422
Stannard, Edward M., Appleton, Wis. Locomotive-cab seat	444,654	Jan. 13	1047	272	54	215
Stannard, Ulysses G., Milton, Wis. Letter-box	444,257	Jan. 6	442	111	54	87
Stanton, Alexander, Lynn, Mass. Electric hair-brush	462,599	Nov. 3	597	147	57	666
Stanton, Daniel P., Warwick, R. I. Pipe-wrench	447,377	Mar. 3	165	45	54	1149
Stanton, Henry, Flushing, assignor of one-half to E. J. Hoyle, Martin's Ferry, Ohio. Centrifugal separator	454,408	June 16	1846	483	55	1516
Stapel, Adolf G., Waltham, S. C. Vault-heater	463,926	Nov. 24	2726	707	57	1100
Staple Fastening Machine Company. (See Hamm, William S., assignor.)						
Staples, David W., Quanah, Tex. Insecticide	456,602	July 28	2075		56	430
Staples, Elial M., Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Thread-guiding device for sewing-machines	452,395	May 19	1542	382	55	883
Staples, Elial M., and S. W. Houghton, assignors to D. S. Loomis, Springfield, Mass. Feeding mechanism for sewing-machines	459,350	Sept. 8	1261	310 311	56	1318

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Staples, George W., Temple, Me. Horse hay-rake	453,949	June 9	1166	{ 304 305	{ 55	1379
Staples, Hiram, Battle Creek, Mich. Device for regulating the throw of connecting-rods	445,323	Jan. 27	2148	556	54	445
Staples, John A., assignor to himself, G. H. and G. E. Jacobs, Newburg, N. Y. Chair-seat of reed or similar material	461,136	Oct. 13	896	232	57	180
Stapley, William S., assignor to Meriden Silver Plate Company, Meriden, Conn. Shaping-press	464,736	Dec. 8	1132	{ 280 281	{ 57	1359
Stapley, William S., assignor to Meriden Silver Plate Company, Meriden, Conn. Shaping-press	464,737	Dec. 8	1135	281	57	1360
Star Automatic Sales Company. (See Hart, Henry C., assignor.)						
Star Slide Seat Company. (See Adelsperger, Charles C., assignor.)						
Starbuck, Calvin T., Arondale, Ala. Horseshoe-machine	461,598	Oct. 20	1717	420	57	343
Stark, Andrew, Chicago, Ill. Cord-knotter for grain-binders	445,788	Feb. 3	449	112	54	600
Stark, Andrew, Chicago, Ill. Cord-knotter for grain-binders	457,169	Aug. 4	359	92	56	602
Stark, Andrew, Chicago, Ill. Cord-knotter for grain-binders	465,436	Dec. 15	2276	{ 584 585	{ 57	1587
Stark, Ferdinand, Ludwigsbafen, Germany. Siphoning apparatus	452,586	May 19	1850	465	55	939
Stark, John. (See Ripley, Frederick P., assignor.)						
Stark, William F., New York, N. Y., assignor to Hoggson & Pettis Manufacturing Company, New Haven, Conn. Check-punch	454,574	June 23	2100	542	55	1572
Starkey, John, Minerva, Ohio. Window-screen	463,465	Nov. 17	1982	516	57	952
Starks, Daniel C. (See Dodge and Starks.)						
Starley, John K., Coventry, England, assignor to Overman Wheel Company, Chicopee Falls, Mass. Monkey-wrench	444,402	Jan. 6	658	170	54	130
Starr, Charles, and P. Krazzeise, Louisville, Ky. Parcel-carrier	445,735	Feb. 3	361	93	54	583
Starr, Charles S., Elmira, N. Y. Curry-comb	455,930	July 14	1016	265	56	203
Starr, Frank M., assignor of one-half to C. H. Merritt, Danbury, Conn. Expansible cone for hat-making machines	446,396	Feb. 10	1464	360	54	803
Starr, George E., and W. Hollingsworth, assignors to G. A. Welch, Baltimore, Md. Newspaper-vending machine	454,301	June 16	1675	439	55	1485
Starrett, Floyd H., Clinton, Mich. Electric lock	463,297	Nov. 17	1711	446	57	900
Starrett, Laroy S., Athol, Mass. Micrometer-gage	448,089	Mar. 10	1331	341	54	1379
Startup, Charles L., Ellenville, N. Y. Machine for blowing glass	453,795	June 9	973	253	55	1340
Stasey, Andrew J., Mexico, Mo. Washing-machine	460,835	Oct. 6	462	117	57	92
State Manufacturing Company. (See Pennycook, John T., assignor.)						
States, Gustavus J., and G. E. Hall, Lincoln, Nebr. Elevator and stacker	464,530	Dec. 8	810	{ 198 199	{ 57	1298
Stande, Ernst. (See Vogelgesang, Max, assignor.)						
Stauffer, Samuel D., Lancaster, Pa. Steam-generator	461,454	Oct. 20	1431	361	57	291
Staunton, Benjamin, Douglas, Wyoming. Rotary index and photograph-album	452,957	May 26	2450	618	55	1064
Stauss, Carl, Berlin, Germany. Smoke-consuming furnace	458,642	Sept. 1	148	35	56	1085
Staver, Henry C. (See Shaw, Levi M., assignor.)						
Staver, Henry C., Englewood, Ill. Sawing-machine	461,455	Oct. 20	1434	361	57	291
Staver, Henry C., Chicago, Ill. Dress for grinding-rings	464,592	Dec. 8	896	220	57	1316
Steam Gauge and Lantern Company. (See Salmon, Pomeroy L., assignor.)						
Steam Gauge and Lantern Company <i>et al.</i> (See Betts, Charles L., assignor.)						
Steam Gauge and Lantern Company <i>et al.</i> (See Dietz, Frederick, assignor.)						
Steam Gauge and Lantern Company <i>et al.</i> (See Gerber, George J., assignor.)						
Steam Gauge and Lantern Company <i>et al.</i> (See McArthur, Warren, assignor.)						
Steam Gauge and Lantern Company <i>et al.</i> (See Wright, Frederick K., assignor.)						
Steam Loop and Separator Company. (See Kerr, Walter C., assignor.)						
Stearns & Co., I. J. (See Hobson, Arthur E., assignor.)						
Stearns & Co., E. C. (See Seely, Obadiah, assignor.)						
Stearns, James H., <i>et al.</i> (See Mitchell, Edward W., assignor.)						
Stearns, Joel W., Jr. (See Hodgson and Stearns.)						
Stearns Manufacturing Company. (See Miller, James S., assignor.)						
Stebbins, Charles W., New Haven, Conn. Window-awning frame	446,480	Feb. 17	1610	395	54	845
Stebbins, Charles W., New Haven, Conn. Game	446,481	Feb. 17	1612	395	54	845
Stebbins, Melvin B., <i>et al.</i> (See Coombs, Edwin T., assignor.)						
Stebbins, Milford H., <i>et al.</i> (See Coombs, Edwin T., assignor.)						
Stebbins, Timothy. (See McDonald and Stebbins.)						
Stebbins, Timothy, Chicago, Ill. Railway-crossing gate	456,914	July 28	2610	685	56	520
Stebbins, Timothy, and J. R. McDonald, assignors to National Folding and Enveloping Company, Chicago, Ill. Folding-machine	455,065	June 30	2975	{ 757 758	{ 55	1744
Stebbins, Timothy, and J. R. McDonald, assignors to National Folding and Enveloping Company, Chicago, Ill. Circular assembling device for folding-machines	460,165	Sept. 29	2554	{ 637 638	{ 56	1587
Stecher, Henry W., Cleveland, Ohio. Sticky fly-paper	447,121	Feb. 24	2638	655	54	1051
Steck, Ernst F., Chicago, Ill., assignor to Fire Extinguisher Manufacturing Company, New York, N. Y. Chemical fire-extinguisher	458,134	Aug. 18	1960	509	56	920
Steck, George, New York, N. Y. Piano	452,006	May 12	873	222	55	751
Steck, M. D. (See Ward, Arthur, assignor.)						
Stecker, Joseph, and F. G. Nordmann, Lexington, Ky. Device for operating railway-gates	463,205	Nov. 17	1569	409	57	872
Stedman, David R. (See Stedman, George A. and D. R.)						
Stedman, George A., New York, N. Y., and D. R. Stedman, assignors to Lees Manufacturing Company, Elizabeth, N. J. Pipe or hose coupling	456,295	July 21	1576	416	56	318
Stedman, John J., La Porte, Ind. Artificial denture	452,653	May 19	1954	490	55	960
Steel Belt Fastener Company. (See Kenehan, Gilbert P., assignor.)						
Steel, Robert. (See Spring, Springer, Spring, and Steel.)						
Steelbrooke, Joseph W., Woonsocket, R. I. Cloth scouring, rinsing and purifying machine	446,937	Feb. 24	2343	582	54	995
Steele, Albert H., Worcester, Mass. Loom-shuttle	447,500	Mar. 3	391	95	54	1191
Steele, Benjamin M. (See Kirk, Alden, and Steele.)						
Steele, Benjamin M., assignor to Acme Harvester Company, Peoria, Ill. Portable-roof chain	453,676	June 9	783	202	55	1304
Steele, Benjamin M., assignor of one-half to F. E. Way, Peoria, Ill. Type-writing machine	459,149	Sept. 8	947	{ 228 229 230	{ 56	1257
Steele, Edwin D., <i>et al.</i> (See Crouch, Seborn, J., assignor.)						
Steele, Herbert B. (See Knight and Steele.)						
Steele & Johnson Manufacturing Company. (See Pritchard, Thomas W., assignor.)						
Steen, Edward T., San Francisco, Cal. Window-chair	457,882	Aug. 18	1569	407	57	845
Steen, James H., Canton, Ohio. Lathe-tool holder	463,394	Nov. 17	1882	490	57	932
Steere, Frank J. (See Steere, John S. and F. J.)						
Steere, John S. and F. J., Springfield, Mass. Combination organ stop-action	455,365	July 7	102	29	56	24
Steese, George F., Akron, Ohio. Stool	464,046	Dec. 1	57	16	57	1148

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Steffelaar, Cornelis, Jzn. (See Van Sluys and Steffelaar.)						
Steffen, Carl, Vienna, Austria-Hungary. Apparatus for lixiviating sugar	449,976	Apr. 7	493	{ 122 123 }	55	96
Steffens, Georg, W., Brooklyn, N. Y., assignor to Craighead & Kintz Company, Ballardvale, Mass. Inkstand	459,829	Sept. 22	2043	513	56	1483
Steffenson, Nels P., Winchester, Wis. Whiffletree	446,615	Feb. 17	1807	447	54	883
Stegemann, Ida, New York, N. Y. Cooking utensil	455,803	July 14	832	218	56	168
Stehli, Jacob, Hartford, Conn. Making screws	455,931	July 14	1017	{ 265 266 }	56	203
Stehman, Edward S., assignor to Stehman, Jenks & Stehman, Lancaster, Pa. Watch-maker's lathe	463,750	Nov. 24	2442	640	57	1047
Stehman, Edward S., assignor to Stehman, Jenks & Stehman, Lancaster, Pa. Watch-maker's lathe	463,751	Nov. 24	2446	641	57	1048
Stehman, Jenks & Stehman. (See Stehman, Edward S., assignor.)						
Steiger, Andrew W., assignor to Yost Writing Machine Company, New York, N. Y. Type-writing machine	452,417	May 19	1578	391	55	890
Steiger, Andrew W., Bridgeport, Conn., assignor to J. Felbel, New York, N. Y. Type-writing machine	454,668	June 23	2266	582	55	1600
Steiger, Andrew W., New York, N. Y., assignor to Yost Writing Machine Company, of New York. Type-writing machine	461,553	Oct. 20	1648	403	57	330
Steiger, Louis A., San José, Cal. Stratified brick	451,626	May 5	281	68	55	632
Steigert, Leopold, Cincinnati, Ohio. Meat-chopping machine	459,450	Sept. 15	1431	359	56	1360
Stein, Emanuel. (See Dubiel, Julius, assignor.)						
Stein, Gustave O., Pioche, Nev. Elastic fender for vessels	445,910	Feb. 3	644	158	54	638
Stein, John J., Lewisburg, Pa. Ice-elevator	464,259	Dec. 1	402	96	57	1210
Stein, Lottie E. (See Dunham, Curtis, assignor.)						
Stein, Samuel P., assignor of one-half to T. B. Gould and F. M. Kelly, Milton, Pa. Lock	457,677	Aug. 11	1920	314	56	769
Stein, Samuel P., assignor of one-half to T. B. Gould and F. M. Kelly, Milton, Pa. Padlock	457,678	Aug. 11	1923	314	56	770
Steinbach, George, Bethel, Mo. Strap trimming machine	465,893	Dec. 29	3021	772	57	1750
Steinbaugh, William F., assignor of one-third to H. Reuting, Platte Centre, Nebr. Corn-sheller	449,637	Mar. 31	3863	967	54	1884
Steinberg, Max. (See Vogel, Wilhelm, assignor.)						
Steiner, Alfred, New York, N. Y. Leggin-holder	444,655	Jan. 13	1049	273	54	216
Steiner, Charles, Phoenixville, Pa. Joint for trusses	458,199	Aug. 25	2064	534	56	946
Steiner, John, East Dubuque, Ill. Sunshade for horses	456,168	July 21	1365	363	56	279
Steinhaner, George B., Reading, Pa. Arm-rest	455,583	July 7	465	121	56	90
Steinheil Söhne, C. A. (See Pasquarelli, Oreste, assignor.)						
Steinboff, Henry C., Union, N. J. Water-heating attachment for ranges	459,662	Sept. 15	1780	448	56	1425
Steinke, Ferdinand, and G. Propst, Hericon, Wis. Grain-drill	465,240	Dec. 15	1928	490	57	1321
Steinmesse, Pierre J., Bois-Colombes, France. Valve and valve mechanism	457,594	Aug. 11	1101	281	56	747
Steinmetz, Frances, Milwaukee, Wis. Abdominal supporter	464,738	Dec. 8	1137	282	57	1360
Stellwagen, Michael F., et al. (See Courtright, Edgar, assignor.)						
Steltz, Edwin H., assignor of one-half to M. Krauss, East Greenville, Pa. Wrench for vehicle-wheels	455,694	July 7	638	168	56	133
Stelzner, Alfred, Wiesbaden, Germany. Preserve-jar	447,479	Mar. 3	357	89	54	1185
Stemen, William, Bremen, Ohio. Animal-stock	454,501	June 23	1990	517	55	1552
Stempel, Edward, San Francisco, Cal. Anti-friction bearing	444,224	Jan. 6	398	99	54	79
Stender, Charles F. G., Chicago, Ill. Harness-pad	453,249	June 2	109	30	55	1169
Stensland, Cornelius, Christiania, Norway. Marine governor	450,777	Apr. 21	1750	424	55	357
Stephan, John A., and R. Southerton, Birmingham, England. Treating iron	460,405	Sept. 29	2920	56	1657	
Stephanie, Fred, New York, N. Y. Metallic lathing	460,542	Sept. 29	3148	786	56	1702
Stephansky, Paul, Boston, Mass. Attachment for gas-burners	449,712	Apr. 7	105	28	55	23
Stephens, Edward A., Fremont, Ind. Winker-fork	445,736	Feb. 3	363	93	54	584
Stephens, Hugh, et al. (See Eveland, William L., assignor.)						
Stephens, Joseph, et al. (See Eveland, William L., assignor.)						
Stephens, Randall W., assignor to W. D. Muir, Honesdale, Pa. Cake-turner	450,536	Apr. 14	1342	330	55	264
Stephens, Richard and W. C., Poul, England. Machinery for drilling rocks	450,921	Apr. 21	1973	484	55	399
Stephens, William, et al. (See Eveland, William L., assignor.)						
Stephens, William, Santa Rosa, Cal. Current-wheel	447,915	Mar. 10	1061	265	54	1326
Stephens, William, Redding, and J. Mott, Siskiyou County, Cal. Car-replacer	448,096	Mar. 10	1332	341	54	1379
Stephens, William C. (See Stephens, Richard and W. C.)						
Stephenson, Elmer E., Wabash, Ind. Anti-rattler for thill-couplings	464,220	Dec. 1	338	82	57	1197
Stephenson, James D., Boerne, Tex. Tool for sinking wells	454,082	June 16	1359	354	55	1422
Stephenson, John, New York, N. Y. Insulated electric car	450,846	Apr. 21	1871	457	55	378
Stephenson, John, New York, N. Y. Car girder-brake	450,847	Apr. 21	1872	458	55	379
Stephenson, John, New York, N. Y. Vestibule street-car	450,848	Apr. 21	1873	{ 458 459 }	55	379
Stephenson, John, New York, N. Y. Combined wheel and rail brake mechanism	450,849	Apr. 21	1876	459	55	380
Stephenson, John, New York, N. Y. Wheel-brake	450,850	Apr. 21	1877	459	55	380
Stephenson, John, New York, N. Y. Electric car-motor jacket	454,888	June 30	2629	674	55	1676
Stephenson, John, New York, N. Y. Cable car	455,774	July 14	773	203	56	157
Stephenson, John F., Albany, N. Y. Incrustation-preventive	454,083	June 16	1361	55	1423	
Stephenson, Joseph, Sparland, Ill. Mining-machine	444,027	Jan. 6	70	19	51	17
Stephenson, R. S., et al. (See Jackson, William, assignor.)						
Stephenson, Richard. (See Robinson and Stephenson.)						
Stepp, John P., Brooklyn, assignor to Haif & Walbridge, New York, N. Y. Parcel-carrier	451,627	May 5	282	68	55	632
Stereo-Relief Decorative Company. (See Enricht, Louis, assignor.)						
Sterick, Charles W., assignor of one-half to J. W. Bement, De Soto, Mo. Steam-cooker	461,834	Dec. 8	1274	320	57	1387
Sterling Company. (See Blake, Rufus W., assignor.)						
Sterling Cycle Company. (See Elliott, Sterling, assignor.)						
Sterling, Isaac F., Marlin, Tex. Churn-dasher	446,718	Feb. 17	1968	491	54	914
Sterling, Isaac F., Marlin, Tex. Lamp-burner	455,584	July 7	466	121	56	90
Sterling, William H., Brooklyn, N. Y. Street-sweeper	454,144	June 16	1444	378	55	1439
Stern Brothers & Co. (See Gosling, Charles, assignor.)						
Stern, Isaac, et al. (See Deming, Edward, assignor.)						
Stern, Jonathan, Savannah, Ga. Puzzle	455,066	June 30	2979	{ 758 759 }	55	1745
Stern, Joseph, New Orleans, La. Horse-detacher	455,241	June 30	3260	827	55	1798
Stern, Myer. (See Horvath, Jennie, assignor.)						
Stern, Sigmund. (See Pallweber, Josef, assignor.)						
Stern, William A. (See Myers, Louis E., assignor.)						
Stern, William A., Allegheny, assignor of one-half to I. H. Silverman, Pittsburg, Pa. Supporting-post for electric conductors	449,977	Apr. 7	494	123	55	96

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Sternbergh, James H., Reading, Pa. Forge-furnace	452,007	May 12	874	{ 222 223 }	55	752
Sternbergh, James H., Reading, Pa. Punching and shearing machine	452,855	May 26	2272	570	55	1030
Sternenberg, Walther T., New York, N. Y. Piano-forte pedal and guard	444,307	Jan. 6	511	134	54	102
Sternke, Albert W., Gaylord, Minn. Mechanical movement	465,003	Dec. 15	1566	398	57	1454
Sternoff-Beyer, Otto, Carlstadt, N. J., assignor to Brooklyn Rail Way Supply Company, New York, N. Y. Wheel and axle for vehicles	455,549	July 7	403	106	56	78
Sterry, Thomas N., Norwich, Conn. Magnetic attachment for windows	451,603	May 5	238	57	55	625
Stetson, Alexander G. C. (See Parmeter and Stetson.)						
Stetson, Bradford, Uxbridge, Mass. Machine for drying yarns, fabrics, &c	444,860	Jan. 20	1421	{ 369 370 }	54	293
Stetson, James B., J. Hammond, W. L. Holman, and J. W. Harris, San Francisco, Cal. Cable-gripping mechanism	453,517	June 2	532	137	55	1248
Stetson, Thomas D., assignor to R. Thompson, New York, and J. S. Bushnell, Brooklyn, N. Y. Boiler-tube cleaner	465,437	Dec. 15	2282	585	57	1589
Stendle, Johan, Rochester, N. Y. Bean-cutting machine	454,388	June 16	1810	472	55	1508
Stevens, Abram W. (See Brinkerhoff, Stevens, and Swart.)						
Stevens, Abram W., and L. D. Swart, assignors to A. W. Stevens & Son, Auburn, N. Y. Walking-cultivator	456,318	July 21	1606	{ 424 425 }	56	324
Stevens, Alfred H., Philadelphia, Pa. Combined writing and moistening device	460,602	Oct. 6	86	23	57	19
Stevens, Ansel, Gorham, assignor of one-half to J. J. Frye, Portland, Me. Sheaf-carrier for self-binding harvesters	452,856	May 26	2274	{ 570 571 }	55	1030
Stevens, Ansel, Gorham, assignor of one-half to J. J. Frye, Portland, Me. Mowing-machine	461,854	Oct. 27	2131	526	57	430
Stevens, Arthur L., Philadelphia, Pa., assignor to Diamond Paper Bag Company, Wilmington, Del. Paper-bag machine	461,287	Oct. 13	1148	{ 292 293 }	57	229
Stevens, Asher B., New Bridge, N. J. Spring attachment for base rocking-chairs	457,137	Aug. 4	309	81	56	593
Stevens, Asher B., Brooklyn, N. Y., assignor to Rocker Spring Company, Chicago, Ill. Platform rocking-chair	461,648	Oct. 20	1798	443	57	358
Stevens, Benjamin A., Toledo, Ohio. Telephone box or cabinet	445,721	Feb. 3	337	89	54	579
Stevens, C. Amory. (See Collins, Caleb G., assignor.)						
Stevens, C. Amory. (See Kyte, David V., assignor.)						
Stevens, C. P. (See Van Ness, Albert, assignor.)						
Stevens, Calvin G., Watertown, N. Y. Optometer	446,032	Feb. 10	855	208	54	686
Stevens, Charles W. (See Crittenden, Louis S., assignor.)						
Stevens, Charles W., Lansing, Mich. Manufacturing rock-faced artificial stone	457,231	Aug. 4	469	123	56	621
Stevens, Fenton F., Janesville, Wis. Nut-lock	463,650	Nov. 24	2295	602	57	1020
Stevens, Frank E., Grand Rapids, Mich. Folding bed	456,915	July 28	2613	685	56	520
Stevens, Frank M., et al. (See Smith, John P., assignor.)						
Stevens, Frank M., Lebanon, N. H. Feed-fork	450,642	Apr. 21	1551	373	55	319
Stevens, Frederick M., assignor to Matthews & Willard Manufacturing Company, Waterbury, Conn. Attaching knobs	453,869	June 9	1061	277	55	1358
Stevens, Frederick M., assignor to Matthews & Willard Manufacturing Company, Waterbury, Conn. Attaching knobs	453,870	June 9	1063	278	55	1358
Stevens, George M., Cambridge, Mass. Fire-alarm-telegraph repeater	463,340	Nov. 17	1783	{ 407 408 }	57	912
Stevens, George T., and W. R. Carruthers, Wellington, New Zealand. Fish-joint for railways or tramways	462,031	Oct. 27	2416	599	57	485
Stevens, Henry A., Norristown, Pa. Car-coupling	444,890	Jan. 20	1467	360	54	303
Stevens & Hills. (See Van Dycke, Josiah D., assignor.)						
Stevens, Levi, Trenton, N. J. Apparatus for the manufacture of gas	444,091	Jan. 6	174	44	54	37
Stevens, Nathan P., Concord, N. H. Plug and socket cutter and chuck for the same	447,048	Feb. 24	2530	628	54	1030
Stevens, Nathan P., Concord, N. H. Hose-nozzle	463,081	Nov. 10	1363	332	57	825
Stevens, Robert L., Ward, Pa. Blacking-brush	450,500	Apr. 14	1298	318	55	255
Stevens, Samuel F., North Adams, Mass. Railway fare-book	448,688	Mar. 24	2323	{ 582 583 }	54	1586
Stevens & Son, A. W. (See Stevens and Swart, assignors.)						
Stevens, Wilbur A., Kansas City, Mo. Electric-railway trolley and support	466,196	Dec. 29	3514	899	57	1844
Stevens, William E. (See Sargent and Stevens.)						
Stevens, Winslow, and H. J. Hovey, New Haven, Conn., assignors to Hall Signal Company, Portland, Me. Electric railway-signal	455,266	June 30	3293	834	55	1804
Stevenson & Company. (See Stevenson, William G., assignor.)						
Stevenson, Donald M., Hamilton, Ohio. Folding bedstead	464,047	Dec. 1	58	16	57	1148
Stevenson, John W., Ravenna, Ohio, assignor of one-half to M. Fuson, Somerset, Ky. Dress-chart	453,923	June 9	1132	296	55	1371
Stevenson, Joseph P. and W. A., Lewiston, assignors to Standard Steel Works, Philadelphia, Pa. Fluid-motor	450,981	Apr. 21	2078	513	55	418
Stevenson, Levi, Lewistown, Ill. Self-waiting table	463,001	Nov. 10	1240	323	57	800
Stevenson, Samuel M., Bastrop, La. Fire-escape	444,308	Jan. 6	513	134	54	102
Stevenson, Thomas F., Brooklyn, N. Y., and R. M. Bassett, Birmingham, Conn. Street letter-box	457,918	Aug. 18	1633	427	56	856
Stevenson, William, assignor of two-thirds to L. Sanguinetti, Vallecito, and D. Baratine, Murphy, Cal. Fruit-pitter	457,940	Aug. 18	1673	438	56	864
Stevenson, William A. (See Stevenson, Joseph P. and W. A.)						
Stevenson, William G., assignor to Stevenson & Company, Wellsville, Ohio. Grinding-pan	462,336	Nov. 3	183	47	57	585
Stevenson, William H. (See Hoggson, Samuel H., assignor.)						
Stevenson, William H. H., Mount Washington, Md. Can-testing machine	445,706	Feb. 3	314	83	54	574
Stevenson, William M. (See Bailey and Stevenson.)						
Stever, Solomon F., Fairfield, Iowa. Railway-rail joint	463,082	Nov. 10	1364	353	57	825
Stevens, Parker, Aspen, Colo. Fuse-tool	464,088	Dec. 1	124	31	57	1161
Steward, John F. (See Dixon and Steward.)						
Steward, John F., Chicago, Ill. Harvester	446,541	Feb. 17	1705	418	54	863
Steward, John F., Chicago, Ill. Hand-drill	448,689	Mar. 24	2325	583	54	1587
Steward, John F., Chicago, Ill. Grain-binder	453,764	June 9	923	{ 239 240 }	55	1330
Steward, John F., Chicago, Ill. Drill-chuck	455,477	July 7	279	71	56	56
Steward, John F., Chicago, Ill. Mower	456,782	July 28	2283	627	56	478
Steward, John F., Chicago, Ill. Chain-tightener for harvesters	459,114	Sept. 8	898	215	56	1248
Steward, John F., Chicago, Ill. Mowing-machine pitman	463,341	Nov. 17	1788	468	57	913
Steward, John F., Chicago, Ill. Spring lifting device for mowing-machines	464,739	Dec. 8	1138	282	57	1360
Steward, John F., Chicago, Ill., assignor of one-half to E. M. Watson, Beloit, Wis. Handle for rotary plows	460,256	Sept. 29	2684	669	56	1613
Stewart, Aisen C., Philadelphia, Pa. Device for operating elevator-gates	460,603	Oct. 6	88	21	57	19

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Stewart, Andrew J. (See Fraser and Stewart.)						
Stewart & Baker. (See Baker, James S., assignor.)						
Stewart, Benjamin B. (See Woolcott, Henry J., assignor.)						
Stewart, Benjamin F., Canton, Ohio. Grain-binder	464,531	Dec. 8	812	{ 199 200 }	57	1299
Stewart, Charles, <i>et al.</i> (See Farlow, John S., assignor.)						
Stewart, Daniel A. (See Page and Stewart.)						
Stewart, Edgar D., Newark, N. J. Switch-lifter	453,250	June 2	110	30, 31	55	1169
Stewart, Edgar J., Sheboygan, Wis. Expandible mandrel	458,351	Aug. 25	2335	570	56	997
Stewart, Elmore, San Diego, Cal. Car-coupling	453,518	June 2	533	137	55	1248
Stewart, Emily C., Birmingham, Ala. Combined hearth, ash-pan, and fender	460,042	Sept. 22	2361	590	56	1542
Stewart, John, New York, N. Y. Punch for checks	460,257	Sept. 29	2685	669	56	1613
Stewart, John A., <i>et al.</i> (See Van Winkle, George H., assignor.)						
Stewart, John A., Mansfield, Ohio. Stock-car	455,130	June 30	3076	{ 783 784 }	55	1763
Stewart, John A., Houston, Tex., assignor of one-half to L. B. Tebbetts, St. Louis, Mo. Axle	449,638	Mar. 31	3864	968	54	1884
Stewart, John H., Danville, Va. Milking-stool	461,944	Oct. 27	2229	567	57	461
Stewart, John L., Philadelphia, Pa. Apparatus for the manufacture of gas	454,409	June 16	1848	483	55	1516
Stewart, John L., assignor to United States Light and Fuel Company, Philadelphia, Pa. Apparatus for manufacturing gas	447,916	Mar. 10	1062	266	54	1326
Stewart, John T., Battleborough, N. C. Device for picking or stripping peanuts from the vine	460,667	Oct. 6	209	54	57	43
Stewart, John W. (See Gatti, Tony C., assignor.)						
Stewart, Joseph B., Haverstraw, assignor of one-half to W. G. Wattson, Tappan, N. Y. Automatic signal apparatus	462,513	Nov. 3	456	112	57	637
Stewart, Reverdy B., assignor of one-eighth to G. E. Colvin, Warren, Pa. Portable hitching-post	460,094	Sept. 22	2442	610	56	1558
Stewart, Ripley A., Leesburg, Fla. Fruit-clipper	457,679	Aug. 11	1224	314	56	770
Stewart, Robert A. (See Sawyer, Willard W., assignor.)						
Stewart, Robert A., Allegheny, Pa. Underground conduit for electric railways	448,461	Mar. 17	1952	491	54	1508
Stewart, Scott, Rivesville, W. Va. Grain-cleaner	449,599	Mar. 31	3786	950	54	1869
Stewart, Timothy B., Hartford, Conn. Axle-box for cars	460,604	Oct. 6	89	25	57	20
Stewart, W. F. Bay. (See Bates, Peter S., assignor.)						
Stewart, Walter H., Franklin, N. H. Thickening thread-feed mechanism for knitting-machines	451,703	May 5	396	96	55	654
Stewart, William A., assignor to himself, A. Lotterhos, C. M. Huber, and E. C. Godman, Crystal Springs, Miss. Planter	464,399	Dec. 1	612	151	57	1250
Stewart, William C., and J. A. Blankley, Bellaire, Ohio. Lantern	452,857	May 26	2276	571	55	1031
Stewart, William H., and W. S. Livengood, Kansas City, assignor, by mesne assignments, to American Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter	449,784	Apr. 7	218	55	55	44
Stewart, William J., <i>et al.</i> (See Parker, Jonas, assignor.)						
Stewart, William J., Chicago, Ill. Feeding mechanism for sewing-machines	460,730	Oct. 6	317	78	57	62
Stewart, William J., assignor of three-fourths to I. C. Smith, J. Kunkel, and J. Parker, Williamsport, Pa. Suspenders	449,141	Mar. 31	3026	765	54	1729
Stickney, Allison M., Medford, assignor to Wellman Sole Cutting Machine Company, Boston, Mass. Machine for cutting soles, &c	446,555	Feb. 17	1728	{ 423 424 }	54	868
Stickney, Fred W., Fond du Lac, Wis. Last-rack	459,537	Sept. 15	1565	390	56	1285
Stickney, Henry C., St. Louis, Mo., assignor to W. B. Forden, Springfield, Mo. Truss	447,378	Mar. 3	166	45	54	1149
Stickney, Henry R., assignor of one-half to R. O. Conant, Portland, Me. Steam-engine	455,775	July 14	774	204	56	158
Stidham, John, Rochester, and J. B. Wallace, assignors to Metric Metal Company, Beaver Falls, Pa. Gas-meter	445,757	Feb. 3	398	101	54	591
Stiebel, Henry G. (See Kisinger, William S., assignor.)						
Stiebel, Kisinger & Stiebel. (See Kisinger, William S., assignor.)						
Stiebel, Otto M., Belleville, Ill. Paper-bag holder	461,945	Oct. 27	2290	567	57	462
Stieringer, Luther. (See Van Vleck, John, assignor.)						
Stifel, Herman C., St. Louis, Mo. Inkstand	453,519	June 2	535	137	55	1249
Stifel, Herman C., St. Louis, Mo. Inkstand	454,078	Aug. 18	1876	489	56	904
Stifel, Herman C., assignor to N. O. Nelson Manufacturing Company, St. Louis, Mo. Steam-trap	452,294	May 12	1364	340	55	840
Stiles, David R., Ottawa, Kans. Means for supplying lubricating-oil to moving parts of engines	446,797	Feb. 17	2091	521	54	940
Stiles, David R., Ottawa, Kans. Means for supplying oil to moving parts of engines	446,798	Feb. 17	2092	521	54	940
Stiles, Elmer A., Chicago, Ill. Animal-grip	445,663	Feb. 3	236	64	54	558
Stiles, George A., Brookline, assignor to G. H. P. Flagg, Boston, and C. K. Bradford, Lynnfield, Mass. Sole-sewing machine	453,568	June 2	609	{ 155 156 }	55	1262
Stiles, Harper, Hickory, N. C. Woven-wire hammock	466,013	Dec. 29	3233	824	57	1789
Stiles, John H., assignor of one-half to M. Neff, Green Cove Springs, Pa. Wrench	447,379	Mar. 3	167	46	54	1149
Stiles, Norman C., Middletown, Conn. Machine for cutting wire to lengths	458,780	Sept. 1	350	85	56	1132
Stiles, Norman C., Middletown, Conn. Power-press	459,597	Sept. 15	1669	417	56	1404
Stiles, William T., Hammond, N. Y. Holder for can-covers	459,598	Sept. 15	1671	417	56	1404
Stilger, Charles, Louisville, Ky. Car-coupling	460,999	Oct. 13	712	183	57	145
Still, William J., Toronto, Canada. Copy-holder	449,010	Mar. 21	2818	714	54	1681
Stillman, Augustus M. (See Brower and Stillman.)						
Stillman, George F., Syracuse, N. Y. Type-bar hanger	448,690	Mar. 24	2326	583	54	1587
Stillman, Walter, Jr., Closter, N. J. Bicycle	456,387	July 21	1747	457	56	346
Stillman, Willett D., Madison, Wis. Roaster	446,033	Feb. 10	858	208	54	627
Stillwell, John A., assignor to Electric Wheel Company, Quincy, Ill. Making metal wheels	463,083	Nov. 10	1365	353	57	825
Stillwell & Bruce Manufacturing Company. (See Rice, Alva C., assignor.)						
Stillwell, Charles, Trenton, assignor to S. W. Van Syckel, Hopewell, N. J. Apparatus for the manufacture of gas	454,531	June 23	2040	528	55	1560
Stillwell, Henry C., Dayton, Ohio. Cash register and indicator	462,104	Oct. 27	2523	{ 626 627 }	57	506
Stillwell, Henry C., Dayton, Ohio. Cash register and indicator	462,105	Oct. 27	2530	{ 628 629 }	57	507
Stillwell, Henry C., assignor of one-half to W. B. Dennis, Dayton, Ohio. Cash indicator and register	462,106	Oct. 27	2533	{ 629 630 }	57	507
Stimpson, Edward S. (See Draper, Stimpson, and Northrop.)						
Stimpson, Edward S., assignor to Dutcher Temple Company, Hopedale, Mass. Loom-temple	456,916	July 28	2614	686	56	521
Stimpson, Edward S., assignor to Dutcher Temple Company, Hopedale, Mass. Thread-cutting attachment for loom-templates	464,203	Dec. 1	311	75	57	1192
Stimpson, Edwin B., Brooklyn, N. Y. Clamp for holding vamps and quarters for shoes	446,158	Feb. 10	1064	{ 261 262 }	54	725

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Stimpson, Edwin B., Brooklyn, N. Y. Strap.....	447,917	Mar. 10	1064	266	54	1326
Stimpson, John H. (See Baldwin and Stimpson.)						
Stinson, Edward A., Dayton, Ohio. Screw-cutting machine.....	464,532	Dec. 8	814	200	57	1299
Stinson, Alice M. (See Humphreys, William P., assignor.)						
Stinecomb, Frank J., Morris, Ohio. Corn-harvester.....	460,836	Oct. 6	463	117	57	92
Stinebring, George W., assignor to L. D. Cornell, Shreve, Ohio. Stone-polishing machine.....	457,496	Aug. 11	955	242	56	717
Stinson, Hugh B., Morris, Minn. Grain-meter.....	466,312	Dec. 29	3698	944	57	1879
Stirn, Daniel L., Milwaukee, Wis. Piano.....	447,380	Mar. 3	168	46	54	1150
Stiter, Henry, assignor of one-half to L. M. O'Brien, both of U. S. Army. Combined shelter- tent and knapsack.....	460,896	Oct. 6	561	{ 141 142 }	{ 57 57 }	{ 109 109 }
Stites, Charles F. (See Stites, Charles F. and C. F.)						
Stites, Charles F. and C. F., Cincinnati, Ohio. Can for paint, &c.....	446,034	Feb. 10	858	208	54	687
Stites, Charles F. and C. F., Cincinnati, Ohio. Paint-can.....	456,681	July 28	2206	585	56	447
Stites, George W., and J. W. Halsey, Hinesborough, Ill. Post-anchor.....	445,457	Jan. 27	2340	608	54	482
Stitzel, Frederick, Louisville, Ky. Governor for steam-pumps.....	452,809	May 26	2206	553	55	1018
Stitzel, Frederick, and C. Weinedel, assignors to American Semaphore Company, Louis- ville, Ky. Electric semaphore.....	445,653	Feb. 3	216	{ 58 59 60 }	{ 54 54 54 }	{ 554 554 554 }
Stohart, St. Clair K. M., <i>et al.</i> (See Robinson, James, assignor.)						
Stock, Charles L., Fostoria, Ohio. Device for separating liquids from natural gas.....	447,848	Mar. 10	947	237	54	1304
Stock, Samuel, Pontiac, N. Y. Wrench.....	457,232	Aug. 4	470	123	56	621
Stöckel, Robert. (See Heffner and Stöckel.)						
Stocker, James M., Atlanta, Ga., assignor of one-third to Z. O. Stocker, San Antonio, Tex. Rotary engine.....	459,381	Sept. 8	1315	328	56	1330
Stocker, Ziba O. (See Stocker, James M., assignor.)						
Stockheim, Heinrich, Mannheim, Baden, Germany, assignor to S. and F. Uhlmann, New York, N. Y. Filtering apparatus.....	444,733	Jan. 13	1184	{ 306 307 }	{ 54 54 }	{ 240 240 }
Stockham, William H., Evanston, assignor to Illinois Malleable Iron Company, Chicago, Ill. Ceiling-plate.....	456,682	July 28	2207	585	56	447
Stockley, August F. (See Davis, Stockley, and Barnett.)						
Stocks, John, and W. Lord, assignors to Lord Brothers, Todmorden, England. Traveling- flat-carding-engine.....	465,545	Dec. 22	2475	{ 630 631 }	{ 57 57 }	{ 1634 1634 }
Stockstrom, Charles A. (See Stockstrom, Louis, assignor.)						
Stockstrom, Louis, St. Louis, Mo. Book-shelf.....	448,091	Mar. 10	1334	341	54	1379
Stockstrom, Louis, assignor of one-half to C. A. Stockstrom, St. Louis, Mo. Vapor-stove.....	462,174	Oct. 27	2628	655	57	526
Stockton, Robert N. (See Butler and Stockton.)						
Stockton, Robert, assignor of one-half to G. N. Allen, Leslie, Ky. Car-coupling.....	465,807	Dec. 22	2863	733	57	1711
Stockwell, Adelbert E., <i>et al.</i> (See Bisel, Joseph J., assignor.)						
Stockwell, Emory and H. C., assignors to Yale & Towne Manufacturing Company, Stam- ford, Conn. Automatic bolt-operating mechanism for safe-doors.....	454,595	June 23	2152	{ 555 556 557 }	{ 55 55 55 }	{ 1580 1580 1580 }
Stockwell, Herbert C. (See Stockwell, Emory and H. C.)						
Stockwell, Lydia, Atchison, Kans. Dough-kneader.....	453,218	June 2	57	15, 16	55	1159
Stockwell, Millard E., Grand Rapids, Mich. Tally-sheet.....	445,508	Jan. 27	2415	630	54	496
Stoddard, Arthur H., Boston, Mass. Vulcanizing apparatus.....	447,480	Mar. 3	357	89	54	1185
Stoddard, Arthur H., and W. P. Cooke, Boston, Mass. Tooth-powder box.....	456,709	July 28	2254	596	56	456
Stoddard, James W. (See Underwood, John K., assignor.)						
Stoddard Manufacturing Company. (See Brown, Arthur F., assignor.)						
Stoddard Manufacturing Company. (See Brown and Knaub, assignors.)						
Stoddard, Samuel G., assignor to Bridgeport Brass Company, Bridgeport, Conn. Lamp- burner.....	451,140	Apr. 28	2318	575	55	475
Stoddard, Solomon P., Brookville, Ind. Picture-frame.....	452,925	May 26	2389	604	55	1052
Stoecker, Henry P., New York, N. Y. Galvanic battery.....	449,299	Mar. 31	3277	830	54	1775
Stoelling, Christ. H. (See Reimers, Dyckce H., assignor.)						
Stoepelwerth, Edward, and C. Knefelkamp, St. Louis, Mo. Window-blind.....	465,787	Dec. 22	2834	726	57	1705
Stoepelwerth, Edward, and C. H. Knefelkamp, assignors of one-third to O. J. Funsch, St. Louis, Mo. Window-blind.....	465,395	Dec. 15	2221	570	57	1576
Stokes, Arthur H. (See Davis and Stokes.)						
Stokes, Charles F. (See McGlinchey, Charles E., assignor.)						
Stokes, George E., <i>et al.</i> (See Dobeck, Frank H., assignor.)						
Stokes, Joseph C., Condit, Ohio. Bolt or rod cutter.....	444,924	Jan. 20	1532	394	54	315
Stokes, Samuel E., Philadelphia, Pa. Controlling device for elevators.....	453,450	June 2	440	113	55	1231
Stokes, Samuel J., Holt's Summit, Mo. Washing-machine.....	445,438	Jan. 27	2340	608	54	482
Stokoe, John W., Jeanerette, La. Machine for side filing circular saws.....	459,821	Sept. 22	2027	508	56	1479
Stolpe, Edward. (See Bowie and Stolpe.)						
Stoltz, Adam, and C. A. Cannon, Aspen, Colo. Hitching-weight.....	453,219	June 2	59	16	55	1160
Stone, Anson K., Pine Island, Minn. Adjustable tire-splicer.....	456,169	July 21	1366	363	56	279
Stone, Charles B. (See Fehleisen, Adolph E., assignor.)						
Stone, Charles E., Toronto, Canada. Paper-file.....	454,502	June 23	1993	517	55	1552
Stone, Charles H. (See Goldman, Isaac S., assignor.)						
Stone, Draper, Rochester, N. Y. Sheet-metal-stamping apparatus.....	444,861	Jan. 20	1424	370	54	294
Stone, Florentine L. (See Dunn, George F., assignor.)						
Stone, Frank P., <i>et al.</i> (See Lowe, Nathaniel M., assignor.)						
Stone, George C., Dansville, N. Y. Device for twisting and looping withes.....	465,894	Dec. 29	3022	773	57	1750
Stone, Harley A., New York, N. Y., assignor, by mesne assignments, to Bostwick Metal Lath Company, of New York. Machine for producing metal lathing.....	459,736	Sept. 15	1877	{ 472 473 }	{ 56 56 }	{ 1444 1444 }
Stone, Harley A., New York, N. Y., assignor, by mesne assignments, to Bostwick Metal Lath Company, of New York. Machine for producing metal lathing.....	459,727	Sept. 15	1879	473	56	1444
Stone, Heman W., Jr., Morris, Minn. Middlings-purifier.....	460,731	Oct. 6	318	78	57	62
Stone, Henry C., assignor to O. A. Stone, Kansas City, Mo. Frictional clutch for harvesters.....	463,752	Nov. 24	2448	641	57	1049
Stone, Joseph. (See McCleary and Stone.)						
Stone, James, <i>et al.</i> (See Gardner, Marshall, assignor.)						
Stone, Joseph H. (See Wickers and Stone.)						
Stone, Joseph H., North Andover, Mass. Shedding mechanism for looms.....	452,396	May 19	1543	{ 382 383 }	{ 55 55 }	{ 883 883 }
Stone, Marvin C., <i>et al.</i> (See Freeman, James P., assignor.)						
Stone, Marvin C., Washington, D. C. Machine for winding paper tubes.....	454,145	June 16	1446	{ 378 379 }	{ 55 55 }	{ 1439 1439 }
Stone, Olive A. (See Stone, Henry C., assignor.)						
Stone, Walter H. (See Unckrich, Ferdinand F., assignor.)						
Stone, William F. (See Crean and Stone.)						
Stonehouse, Delbert. (See Apgar, Andrew J., assignor.)						
Stonemetz, John H., assignor to Stonemetz Printers Machinery Company, Millbury, Mass. Cutting and switching mechanism for web-printing machines.....	452,243	May 12	1288	323	55	627

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Stonemetz, John H., assignor to Stonemetz Printers Machinery Company, Millbury, Mass. Cutting and switching mechanism for web-printing machines	452,244	May 12	1290	324	55	827
Stonemetz, John H., assignor to Stonemetz Printers Machinery Company, Millbury, Mass. Printing-press	465,632	Dec. 22	2609	663 664	57	1659
Stonemetz, John H., assignor to Stonemetz Printers Machinery Company, Millbury, Mass. Paper-folding machine	465,633	Dec. 22	2611	664 665	57	1659
Stonemetz, John H., assignor to Stonemetz Printers Machinery Company, Millbury, Mass. Traveling-cylinder printing-press	465,634	Dec. 22	2613	665 666	57	1660
Stonemetz, John H., assignor to Stonemetz Printers Machinery Company, Millbury, Mass. Paper-folding machine	465,635	Dec. 22	2620	667	57	1661
Stonemetz, John H., assignor to Stonemetz Printers Machinery Company, Millbury, Mass. Paper-folding machine	465,636	Dec. 22	2622	668	57	1662
Stonemetz, John H., assignor to Stonemetz Printers Machinery Company, Millbury, Mass. Plate-bending machine	465,637	Dec. 22	2624	668 669	57	1662
Stonemetz Printers Machinery Company. (See Stonemetz, John H., assignor.)						
Stoner, Elbanan L., Centreville, Mo. Windmill	457,384	Aug. 11	777	199 200	56	684
Stoner, Jacob B., Kansas City, Kans., assignor to S. Lazarus, Sherman, Tex. Stock-car	441,058	Jan. 6	118	29, 30	54	26
Stoner, Jacob G., Waynesborough, Pa. Feed mechanism for saw-mill carriages	444,321	Jan. 6	532	138 139	54	107
Stoner, James M., Denver, Colo. Dumping-wagon	456,319	July 21	1608	425 426	56	324
Stoner, John B., assignor to H. B. Titus and C. B. Hillhouse, New York, N. Y. Elevator	461,396	Oct. 13	1339	337	57	266
Stoner, Lizzie H., Denver, Colo. Combined letter and newspaper box	464,932	Dec. 8	1407	355	57	1413
Stong, John N., Woodbridge, Canada. Gravitating door-closer	448,556	Mar. 17	2089	524	51	1534
Stoop, William J., assignor of one-half to M. G. Leslie and H. Fergusson, Pittsburg, Pa. Cork-cutting machine	464,593	Dec. 8	898	221	57	1316
Storck, A. C., et al. (See Freese, Claus, assignor.)						
Storck, Ferdinand, Buena Vista, Colo. Potato-planter	446,271	Feb. 10	1275	312 313	54	763
Storer, Albert, Boston, Mass. Message-recording instrument	460,676	Oct. 6	226	57	57	46
Storer, Albert, assignor to G. W. Gregory, Boston, Mass. Polarized bell	451,414	Apr. 28	2755	681	55	558
Storer, Edwin W., Philadelphia, Pa. Valve	457,680	Aug. 11	1225	315	56	770
Storey, Herbert L., et al. (See Pont, Alexandre de and S., assignors.)						
Storey, Imle E., Boulder, Colo. Electric motor and generator	463,693	Nov. 24	2362	619	57	1032
Storey, Isaac H., et al. (See Pont, Alexandre de and S., assignors.)						
Storey, Wendel, Grafton, Wis. Lawn-mower	448,866	Mar. 24	2611	656	54	1640
Storla, Carl, Belford, S. D. Device for raising liquids	465,736	Dec. 22	2752	702	57	1689
Storle, Ole O., Milwaukee, Wis. Tripping mechanism for grain-hinders	451,957	May 12	792	200 201	55	736
Storm, Charles H., New York, N. Y. Means for marking cigar-boxes	446,650	Feb. 17	1867	463	54	895
Story, John, Louaconing, Md. Track-brake for railways	463,005	Nov. 10	1241	323	57	800
Story, John, Louaconing, Md. Automatic car-dump	463,006	Nov. 10	1242	323 324	57	800
Stotsenburg, John H. (See Doremus, Willard D., assignor.)						
Stott, Samuel H., Preston, England. Spray-producing apparatus	458,433	Aug. 25	2464	599	56	1021
Stoughton, Homer R. (See Craig, William R., assignor.)						
Stout, Albert A. and F. B., Fowler, Cal. Valve for sinks and water-closets	454,889	June 30	2630	675	55	1676
Stout, Edward E. (See Pomeroy, Henry R., assignor.)						
Stout, Flora B. (See Stout, Albert A. and F. B.)						
Stout, George G. (See Nash, Stout, and Davis.)						
Stout, George H., Marceline, Mo. Implement for dehorning cattle	448,092	Mar. 10	1335	341	54	1380
Stout, George M., Philadelphia, Pa. Snap-hook	444,717	Jan. 13	1144	294	54	233
Stout, James E., Scott City, Kans. Spike-extractor	460,897	Oct. 6	562	142	57	110
Stout, John V., Easton, Pa. Electrically-controlled valve	448,273	Mar. 17	1643	418 419	54	1449
Stout, John V., Easton, Pa. Electric temperature-regulator	448,274	Mar. 17	1645	419	51	1450
Stout, John V., Easton, Pa. Mechanism for operating dampers or similar valves	459,091	Sept. 8	850	206	56	1237
Stout, John V., Easton, Pa. Electrical valve-controller	461,554	Oct. 20	1650	403 404	57	330
Stout, John V., Easton, Pa. Shunt-magnet for valve-controllers	461,555	Oct. 20	1653	404	57	331
Stout, Lewis F. and N., Star City, Ind. Washing-machine	449,600	Mar. 31	3787	950	54	1869
Stout, Nathan. (See Stout, Lewis F. and N.)						
Stout, William H. B., Chicago, Ill. Attachment for car-couplings	461,288	Oct. 13	1152	294	57	230
Stovall, Philip, assignor of one-half to J. O., N. W., and S. F. Perkins, Atlanta, Ga. Saw-mill feed	461,719	Oct. 20	1912	473	57	380
Stove, Alfred E., London, England. Means for attaching helmets and breast-plates to diving-dresses	458,750	Sept. 1	304	74	56	1123
Stovell, Oscar H., Hampstead, England. Lighting of tables and the like by electricity	453,871	June 9	1064	278	55	1358
Stover, Atkins. (See Leuhart, Philip F., assignor.)						
Stover Bicycle Manufacturing Company. (See Hance, William A., assignor.)						
Stover, Daniel C., Freeport, Ill. Type-writing machine	446,719	Feb. 17	1969	491 492 493	54	914
Stover, Daniel C., Freeport, Ill. Type-writing machine	446,720	Feb. 17	1976	492 493	54	915
Stover, Daniel C., and O. J. Ziegler, Freeport, Ill. Windmill-regulator	447,139	Feb. 24	2698	669	54	1060
Stover, Joseph W., Newtonville, Mass. Fire-alarm-telegraph apparatus	451,902	May 5	690	173	55	709
Stover, Joseph W., New York, N. Y. Signaling switch and circuit	461,194	Oct. 13	1001	256	57	199
Stover, William B., South Bend, Ind. Two-wheeled vehicle	450,643	Apr. 21	1552	373	55	320
Stowe, Benjamin L., Brooklyn, N. Y. Fire-hose	460,924	Oct. 6	602	152	57	117
Stowe, Benjamin L., New York, N. Y. Hose	460,925	Oct. 6	603	153	57	117
Stowe, Benjamin L., Brooklyn, assignor to himself, and J. V. Reed, New York, N. Y. Joining knit belts	446,084	Feb. 10	935	229 230 231	54	702
Stowe, Benjamin L., Brooklyn, assignor to J. V. Reed, New York, N. Y. Circular loom, &c. (See Merrill and Stowe.)	446,085	Feb. 10	936	230 231	54	702
Stowe, James G., assignor to Southwestern Supply Company, Kansas City, Mo. Draft-equalizer	455,861	July 14	912	239	56	184
Stowe, James G., assignor to Southwestern Supply Company, Kansas City, Mo. Hay-carrier	463,876	Nov. 24	2646	689 690	57	1085
Stowe, Silas A. (See Leonard and Stowe.)						
Stowe, Titus, Readsborough, Vt. Cover for sap-pails	462,514	Nov. 3	458	112	57	638
Stowell, Henry F., Rochester, N. Y. Soap-holder and distributor	448,275	Mar. 17	1648	419	54	1450
Stowell, Henry F., Rochester, N. Y. Overflow and waste pipe	448,842	Mar. 24	2567	614	54	1633

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Stowell, Henry F., Rochester, N. Y. Basin and overflow-pipe therefor	461,934	Oct. 27	2276	564	57	459
Stowell, John M. (See Haberthür and Stowell.)						
Stowers, William H. (See Bruce, Robert M., assignor.)						
Straffin, Charles H., Chicago, Ill. Oil-burner	459,599	Sept. 15	1672	418	56	1405
Strain, William J., Jersey City, N. J. Bench-sput	447,798	Mar. 10	870	216	54	1289
Strait, Andrew V., assignor of one-half to F. E. Schrom, Sidney, N. Y. Brake for baby-carriages	452,087	May 12	1032	261	55	777
Strait, E. B., <i>et al.</i> (See Strait, Thomas J., assignor.)						
Strait, Horatio N. (See Hem, Halvor O., assignor.)						
Strait, Laclelle J., Kalamazoo, Mich. Surface cattle-guard	451,141	Apr. 28	2319	575	55	475
Strait, Newton A., <i>et al.</i> (See Strait, Thomas J., assignor.)						
Strait, Thomas J., Williamsport, Pa. Rebounding-plunger press	449,601	Mar. 31	3788	951	54	1870
Strait, Thomas J., Williamsport, Pa., assignor to N. A. and E. B. Strait, Washington, D. C. Rebounding-plunger press	464,484	Dec. 1	731	179	57	1274
Strait, William, Elmira, N. Y. Harrow	457,095	Aug. 4	255	66	56	582
Strang, Lew K., assignor of one-half to J. D. Weldon, Haverhill, Mass. Egg extracting or separating device	451,684	May 5	372	91	55	650
Strange, John F., assignor to himself and J. B. Winslow, New Bedford, Mass. Shade for spectacles or eyeglasses	448,276	Mar. 17	1650	419	54	1451
Strange, Robert E., <i>et al.</i> (See House, John, assignor.)						
Strasburger, Frank C. H., Chicago, Ill. Measuring-faucet	448,093	Mar. 10	1336	342	54	1380
Strasburger, Frank C. H., Chicago, Ill. Bottle and stopper therefor	452,810	May 26	2208	554	55	1018
Strasburger, Frank C. H., Chicago, Ill. Measuring-can	457,595	Aug. 11	1103	281	56	747
Strassner, Joseph, Philadelphia, Pa. Display-rack for curtains	460,043	Sept. 22	2362	591	56	1543
Stratton, Charles H., Buffalo, N. Y. Jump-seat vehicle	457,883	Aug. 18	1570	407	56	815
Stratton, William J., Oka, Mont. Cigar-holder	454,689	June 23	2296	588	55	1607
Straub, Carl, Syracuse, N. Y. Composition of matter	448,463	Mar. 17	1957		54	1509
Straub, Vincent, Indianapolis, Ind. Shoe	457,408	Aug. 11	808	208	56	691
Straube, Carl F., and A. Richter, Allegheny, Pa. Newspaper-file	465,568	Dec. 22	2506	639	57	1641
Straus, Alexander, assignor to New York Belting and Packing Company, New York, N. Y. Rubber tire for vehicles	449,502	Mar. 31	3637	915	54	1842
Straus, Alexander, assignor to New York Belting and Packing Company, Limited, New York, N. Y. Elastic wheel-tire	453,520	June 2	536	138	55	1249
Straus, Max, Baltimore, Md. Electric push-button	452,397	May 19	1545	383	55	884
Strauss, Gustavus E., New York, N. Y. Curtain-pole	444,230	Jan. 6	407	101	54	80
Strauss, Gustavus E., New York, N. Y. Curtain-cornice	444,237	Jan. 6	417	104	54	82
Strauss, Joseph B., Cincinnati, Ohio. Electric hose-coupling	454,669	June 23	2268	582	55	1601
Strauss, Joseph B., Cincinnati, Ohio. Electric train-signal	463,395	Nov. 17	1884	491	57	932
Strayer, John H., York, Pa. Leaf-treating machine	458,686	Sept. 1	219	51	56	1107
Streat, Thomas, assignor to himself and P. Whitlock, Richmond, Va. Cigar-maker's implement	454,084	June 16	1362	354	55	1423
Streater, Henry D., Galesburg, Mich. Store-bin for sugar	458,643	Sept. 1	149	35	56	1095
Street, Albert F., Rockville, Conn. Nail-puller	456,603	July 28	2076	549	56	428
Street, Albert F., assignor of one-half to C. F. Doebler, Rockville, Conn. Hammer	455,776	July 14	775	204	56	158
Street, Arthur W., Chicago, Ill. Apparatus for sprinkling water upon hogs	444,143	Jan. 6	271	65	54	56
Street, Arthur W., Chicago, Ill. Abrading-machine	455,131	June 30	3079	784	55	1763
Street, George V., assignor to Unexcelled Fire Works Company, New York, N. Y. Machine for charging fire-works	450,982	Apr. 21	2079	513	55	419
Street, Willoughby W. (See Leckwith and Street.)						
Street, Willoughby W., Springfield, Mass. Electrical matrix-making machine	457,752	Aug. 11	1350	349	56	798
Streeter, Herbert A., Chicago, Ill. Iron roof or other structure	459,051	Sept. 8	795	192	56	1227
Streeter, Nelson R., Groton, N. Y. Bag-holder	458,862	Sept. 1	491	120	56	1158
Streeter, Noble R., Brooklyn, N. Y. Wall-paper	444,213	Jan. 6	378	94	54	75
Streets' Western Stable Car Line. (See Sandberg, John P., assignor.)						
Streiber, Hilbert, Oil City, Pa. Crank-pin-turning machine	457,960	Aug. 18	1703	445	56	870
Strens, Emilio de, Rome, Italy. Steam-boiler or other furnace	462,515	Nov. 3	459	112	57	638
Stresemann, Gustav, assignor of one-half to P. Braun, Vienna, Austria-Hungary. Tobacco-pipe	459,770	Sept. 22	1945	490	56	1464
Stretch, Joseph, Newark, N. J. Fish-hook	444,656	Jan. 13	1050	273	54	216
Strickel, Louis, assignor of one-half to G. C. Wetherbee, Detroit, Mich. Machine for the manufacture of brushes	452,468	May 19	1674	420	55	906
Striegel, George F., Buffalo, N. Y. Band-saw guide	459,600	Sept. 15	1673	418	56	1405
Striener, Alexander, Sleepy Eye, Minn. Electric guest-call	445,341	Jan. 27	2177	564	54	451
Stringfellow, John H. W., Walthamstow, England. Solidifying liquid hydrocarbons	454,777	June 23	2426		55	1633
Stringfellow, John H. W., London, England. Apparatus for the manufacture of gas	457,481	Aug. 11	935	237	56	713
Strobel, Victor O., II. A. Lewis, Philadelphia, Pa., and L. G. Laurean, New York, N. Y. Coin-controlled machine	462,283	Nov. 3	97	25	57	569
Strobel, Victor O., H. A. Lewis, Philadelphia, Pa., and L. G. Laurean, New York, N. Y. Coin-controlled mechanism	462,284	Nov. 3	101	25	57	570
Stroh, Freeman, and M. J. McIntosh, Navarre, Ohio. Bolt	446,997	Feb. 24	2431	605	54	1012
Stroh, George, and G. Osius, Detroit, Mich. Ammonia-still	458,798	Sept. 1	373	90	56	1136
Stroh, George H., Centre Moreland, Pa. Drawer-guide equalizer	453,521	June 2	537	138	55	1249
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Combined tie-bar and slide-plate for railway-tracks	450,983	Apr. 21	2080	514	55	419
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Slide-plate appliance for split switches	452,323	May 12	1422	352	55	850
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Railway-switch	457,904	Aug. 18	1605	419	56	850
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Railway-switch	457,905	Aug. 18	1606	419	56	850
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Manufacture of clamps	459,859	Sept. 22	2086	523	56	1492
Strom, Axel A., Austin, assignor to Strom Manufacturing Company, Chicago, Ill. Manufacture of tie-bars and connecting-rods for railways	459,860	Sept. 22	2087	524	56	1492
Ström, Eric G. (See Greenlee and Ström.)						
Strom Manufacturing Company. (See Strom, Axel A., assignor.)						
Strom, Olaf, assignor of one-half to G. Angell, Brooklyn, N. Y. Combination fittings for gas and electric lights	460,095	Sept. 22	2443	610	56	1558
Stromberg, Charles J. (See Campbell, Hardy W., assignor.)						
Stromberg, Charles J. (See Palmieri, Henry, assignor.)						
Stromeyer, Johann P. E. C., London, England. Attaching railway-rails to longitudinal sleepers	457,735	Aug. 11	1320	343	56	790

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Stromyer, John H., Baltimore, Md., assignor to E. & T. Fairbanks & Company, St. Johnsbury, Vt. Poise for platform-scales	445,825	Feb. 3	525	126	54	614
Strouer, George, Brainerd, Minn., assignor of one-half to E. D. Bangs and H. G. Underwood, Milwaukee, Wis. Metal-turning tool	450,733	Apr. 21	1678	405	55	343
Strong, Alexander. (See Strong, William, assignor.)						
Strong, Edward B., San Francisco, Cal. Case for maps or sheets	447,963	Mar. 10	1178	298	54	1348
Strong, Edward C. (See Gilbert, Truman H., assignor.)						
Strong, George S., New York, N. Y. Compound locomotive-engine	450,751	Apr. 21	1704	412	55	348
Strong, George S., New York, N. Y., assignor to J. N. Gamble, Cincinnati, Ohio. Boiler	466,085	Dec. 29	3340	{ 853 854 }	{ 57 57 }	{ 1812 1812 }
Strong, George W., and G. A. Williams, Sardinia, N. Y. Box-making machine	455,242	June 30	3260	827	55	1798
Strong, John N., Washington Heights, Ill. Mechanism for operating and controlling railway-switches	460,668	Oct. 6	211	54, 55	57	44
Strong, Nelson H., et al. (See Lamborn, Lewis, assignor.)						
Strong, Preston W., assignor of one-half to F. P. Glazier, Chelsea, Mich. Oil-stove	465,004	Dec. 15	1567	{ 398 399 }	{ 57 57 }	{ 1454 1454 }
Strong, Reed F. (See Yule, George P., assignor.)						
Strong, Richard A., and G. R. Cooté, Brooklyn, N. Y. Fruit-cleaning machine	459,337	Sept. 8	1940	305	56	1314
Strong, Samuel, assignor, by mesne assignments, to G. E. Kirke, Washington, D. C. Street letter-box	462,224	Oct. 27	2719	685	57	543
Strong, William, Indianapolis, Ind., assignor of one-half to A. Stroug, Chicago, Ill. Flushing-valve	459,918	Sept. 22	2185	549	56	1509
Strother, Charley C., California, Mo. Car-coupling	459,128	Sept. 8	920	121	56	1252
Strother, John W., Cherry Camp, W. Va. Sheep-shears	448,557	Mar. 17	2090	524	54	1535
Strother, Martin L., Sorgho, Ky. Car-coupling	449,713	Apr. 7	106	28	55	23
Strother, William M., Lynchburg, Va. Thill-coupling	447,439	Mar. 3	277	70	54	1170
Stroud, Edward M., Philadelphia, Pa. Velocipede	451,080	Apr. 28	2220	549	55	455
Stroud, James, New York, N. Y. Meat-roaster	453,418	June 2	383	99	55	1219
Stroud, Wiley N., Waxahachie, Tex. Wheel. (Reissue)	11,168	May 26	2848	714	55	1138
Strout, Harvey C., Peabody, Mass. Vehicle-brake	455,804	July 14	833	219	56	168
Strout, Harvey C., assignor, by mesne assignments, to J. C. Entwisle, Salem, Mass. Barrel-closure	451,415	Apr. 28	2756	682	55	558
Strowbridge, Clarence S., assignor to Hamilton Wire Cloth Company, Limited, Hamilton, N. Y. Take-up and let-off mechanism for looms for weaving wire	446,035	Feb. 10	860	209	54	687
Strowbridge, Clarence S., assignor to Hamilton Wire Cloth Company, Limited, Hamilton, N. Y. Reed for looms	457,409	Aug. 11	809	208	56	691
Strowger, Almon B., Kansas City, Mo. Automatic telephone-exchange	447,918	Mar. 10	1065	267	54	1326
Strubler, Charles G., Chicago, Ill. Coin-controlled scale and measuring and lifting machine	458,815	Sept. 1	400	{ 96 98 }	{ 56 56 }	{ 1142 1142 }
Struss, Henry W., New York, N. Y. Tubular braiding machine	450,684	Apr. 21	1616	388	55	332
Struss, Henry W., New York, N. Y. Multiple-braided tubing	450,685	Apr. 21	1616	388	55	332
Struss, Henry W., New York, N. Y. Tubular-braiding machine	458,644	Sept. 1	151	35, 36	56	1095
Struss, Henry W., New York, N. Y. Tubular-braiding machine	458,645	Sept. 1	152	36	56	1095
Struvé, William P. (See Taylor and Struvé.)						
Stryker, Elizabeth V., Plainfield, Ill. Fly-net for horses	460,605	Oct. 6	90	25	57	20
Stryker, W. H., et al. (See Dunn, John P., assignor.)						
Stuard, Charles D., assignor of one-half to R. McEntyre, McNeil, Tex. Plow	444,718	Jan. 13	1145	295	54	234
Stuart, Albert H., assignor of one-half to C. C. Briggs & Co., Boston, Mass. Piano-action	451,662	May 5	335	82	55	642
Stuart, Charles C., Smithville, N. J. Weighing-scale	458,322	Aug. 25	2281	558	56	986
Stuart, Charles E. (See Van Horn, William, assignor.)						
Stuart, John E., Newark, N. Y. Slicer	453,451	June 2	440	113	55	1231
Stuart, Onslow, assignor of one-half to B. T. Hillman, Chilmark, Mass. Rudder-lock	444,028	Jan. 6	71	19	54	17
Stuart, Thomas M., Corning, Iowa. Car-coupling	445,576	Feb. 3	88	21	54	528
Stubblebine, William, Bethlehem, Pa. Reverberatory furnace	456,663	July 28	2178	577	56	441
Stublefield, Oliver W., Canton, Ill. Car-coupling	457,096	Aug. 4	256	66	56	582
Stuck, Dewell, Rochester, N. Y. Dental chair	457,059	Aug. 4	192	47, 48	56	370
Stuck, Dewell, Rochester, N. Y. Dental chair	457,060	Aug. 4	199	49, 50	56	572
Stuck, Dewell, Rochester, N. Y. Dental chair	465,952	Dec. 29	3108	{ 795 796 797 }	{ 57 57 57 }	{ 1766 1766 1767 }
Stuck, Dewell, Rochester, N. Y. Dental chair	465,953	Dec. 29	3111	{ 796 797 797 }	{ 57 57 57 }	{ 1767 1767 1767 }
Stucker, Paul, Brooklyn, N. Y. Watch-case back or cap	460,044	Sept. 22	2364	591	56	1543
Stucky, Thomas E. (See Cooper and Stucky.)						
Studebaker Brothers. (See Wilcox, Frank F., assignor.)						
Studer, Lucas, St. Joseph's Hill, Ind. Cotton cultivator and thinnor	450,303	Apr. 14	984	244	55	195
Stuhr, Louis, San Francisco, Cal. Automatic vent for casks	464,703	Dec. 8	1080	267	57	1349
Stukes, John M., San Marcos, Tex. Snap-hook	451,341	Apr. 28	2647	655	55	538
Stukes, John M., San Marcos, Tex. Quilting-frame	453,350	June 2	267	70	55	1198
Stukes, John M., San Marcos, Tex. Quilting-frame for sewing-machines	455,777	July 14	776	204	56	158
Stulken, George D., McCook, Neb. Hame-tug clip	449,714	Apr. 7	107	28	55	23
Stults, Elmer E., et al. (See Dunley, Benjamin, assignor.)						
Stump, Ira E., assignor to C. S. Pierce, Cleveland, Ohio. Rotary harrow	449,833	Apr. 7	295	77	55	58
Sturges, Lee, assignor to Chicago Stamping Company, Chicago, Ill. Metallic vessel	458,352	Aug. 25	2337	570	56	997
Sturm, Heinrich. (See Sandt and Sturm.)						
Sturtevant Mill Company. (See Sturtevant, Thomas L., assignor.)						
Sturtevant, Thomas J. (See Sturtevant, Thomas L. and T. J.)						
Sturtevant, Thomas L., Framingham, assignor to Sturtevant Mill Company, Boston, Mass. Composite millstone	452,958	May 26	2450	618	55	1065
Sturtevant, Thomas L., Framingham, assignor to Sturtevant Mill Company, Boston, Mass. Composite millstone	452,959	May 26	2452	619	55	1065
Sturtevant, Thomas L. and T. J., Framingham, Mass. Vapor-burner	457,801	Aug. 18	1430	370	56	819
Stut, John C. H., San Francisco, Cal. Cable-railway grip	454,235	June 16	1576	{ 415 416 }	{ 55 55 }	{ 1465 1465 }
Stuttaford, Samuel. (See Moffatt and Stuttaford.)						
Stuttgart-Fürther Holz & Spiegelmanufaktur. (See Friedel, Robert, assignor.)						
Stutzman, David, Ligonier, Ind. Submerged heater	462,107	Oct. 27	2536	630	57	508
Subbotin, William. (See Froloff and Subbotin.)						
Subers, Lawrence A., Phoebus, Va. Pedal-piano	459,382	Sept. 8	1317	{ 328 329 330 }	{ 56 56 56 }	{ 1330 1330 1330 }
Subers, Zach T. (See Erny, Subers, and Hoos.)						
Suehland, Theodor, Berlin, assignor to V. Landsberg, Posen, Germany. Chair	449,355	Mar. 31	3388	853	54	1793

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Suckart, George. (See Sobolewski, Otto C., assignor.)						
Suess, Werner, assignor of one-half to R. Ezdorf, Washington, D. C. Mechanical movement.	452,654	May 19	1956	{ 490 491 728	{ 55 57	960 1707
Sueur, Alfred, assignor to M. J. Paillard & Co., New York, N. Y. Musical decanter.	465,795	Dec. 22	2843			
Suffel, John W., et al. (See Kimmel, Joseph, assignor.)						
Suffern, J. B., et al. (See Goetz, Victor J., assignor.)						
Suffern, James B., and W. C. Kidd, Hillburn, N. Y. Switch-stand.	463,007	Nov. 10	1245	324	57	801
Suffron, Benjamin, Peebles, Ohio. Fire-proof ventilator and heater.	457,233	Aug. 4	471	124	56	621
Sugar Coated Yeast Company. (See Cameron, James W., assignor.)						
Sagg and Beiersdorf Company. (See Snyder, William D., assignor.)						
Sagg, William T., London, England. Ventilating apparatus.	464,204	Dec. 1	312	75	57	1192
Sughrone, Martin, Pleasant Valley, Ill. Wheel-plow.	465,329	Dec. 15	2105	538	57	1554
Sullivan, Charles, Wichita, Kans. Valve-operating mechanism for flushing siphons.	449,300	Mar. 31	3453	869	54	1806
Sullivan, Cornelius A., Brooklyn, N. Y. Book-binding.	462,959	Nov. 10	1182	306	57	788
Sullivan, Daniel F., assignor of one-half to G. F. Blair, Lowell, Mass. Circular spring-needle knitting machine.	459,714	Sept. 15	1855	466	56	1440
Sullivan, John, Washington, D. C. Trolley-wheel.	453,093	May 26	2676	674	55	1109
Sullivan, John W., Stanberry, Mo. Nut-wrench.	459,072	Sept. 8	824	200	56	1232
Sullivan, Joseph A., Chicago, Ill. Spring.	452,088	May 12	1033	261	55	777
Sullivan, Lulie F., Holden, Mo. Churn.	459,771	Sept. 22	1945	491	56	1464
Sullivan Machine Company. (See Ball, Albert, assignor.)						
Sullivan Machine Company. (See Rofe, Frank S., assignor.)						
Sullivan, Michael, Highwood, Conn. Dumb-waiter.	464,835	Dec. 8	1276	320	57	1388
Sullivan, Patrick M. (See Boyer, Cuyler B., assignor.)						
Sullivan, Timothy, Janesville, Wis. Transplanter.	461,878	Oct. 27	2175	{ 536 537	{ 57	439
Sullivan, William H., Holden, Mo. Egg-tray for incubators.	448,558	Mar. 17	2091	524	54	1535
Suloway Mills. (See Mayo, George D., assignor.)						
Suloway Mills. (See Mayo, William H. and G. D., assignors.)						
Sully, Robert M., Petersburg, Va. Seal-lock.	444,322	Jan. 6	534	139	54	107
Sully, Thomas R. (See Bacon, Byron R., assignor.)						
Sulzer & Co., H. (See Sulzer and Schmidt, assignors.)						
Sulzer, Hans, Winterthur, and A. Schmidt, Glatfelden, assignors to H. Sulzer & Co., Winterthur, Switzerland. Machine for hollowing precious or other stones.	450,644	Apr. 21	1553	{ 373 374	{ 55	320
Sulzman, Charles A., Waterford, N. Y. Steam-trap.	444,214	Jan. 6	379	94, 95	54	76
Sumner, Buford A. (See Lenoir, John T., assignor.)						
Sumner, Albert A., Keokuk, Iowa. Grate.	459,216	Sept. 8	1057	257	56	1277
Sumner, David E., Franklin, Neb. Cleaning composition.	444,187	Jan. 6	342		54	69
Sumner, William J. (See Coburn and Sumner.)						
Sumner, William J., assignor to Coburn Trolley Track Manufacturing Company, Holyoke, Mass. Door-hanger.	455,695	July 7	639	{ 168 169	{ 56	124
Sumser, John H., Louisville, Ky. Post-hole digger.	456,170	July 21	1367	363	56	279
Sundberg Brothers. (See Sundberg, Emil, assignor.)						
Sundberg, Emil, assignor to Sundberg Brothers, Eureka, Cal. Clothes-hanger.	445,866	Feb. 3	582	142	54	626
Sundeen, Alfred D., S. B. Molander, G. W. Anderson, Mora, and A. M. Carlsen, St. Paul, Minn. Signal attachment for telephones.	454,503	June 23	1993	518	55	1552
Sundeen, Alfred D., S. B. Molander, G. W. Anderson, Mora, and A. M. Carlsen, St. Paul, Minn. Signal attachment for telephones.	454,504	June 23	1998	518	55	1553
Sunderland, John P., Brooklyn, assignor to D. M. Monjo trustee, New York, N. Y. Mechanical telephone.	453,600	June 2	658	169	55	1272
Sundet, Tom O., and S. W. Brekke, Nielsville, Minn. Mowing and reaping machine.	463,008	Nov. 10	1246	324	57	801
Sundgren, Olof, Ostersed, Sweden. Centrifugal winnowing apparatus.	455,977	July 14	1086	{ 285 286	{ 56	215
Sundh, August. (See Boening, Ernest, assignor.)						
Sundh, August, assignor of one-half to E. Boening, Yonkers, N. Y. Elevator.	446,397	Feb. 10	1466	360	54	803
Sundh, August, assignor of one-half to E. Boening, Yonkers, N. Y. Valve mechanism for hydraulic elevators.	454,410	June 16	1851	484	55	1516
Sundh, August, assignor of one-half to E. Boening, Yonkers, N. Y. Elevator.	458,991	Sept. 1	690	{ 168 169	{ 56	1291
Sundstrom, Carl R., Lindsborg, Kas. Wind-wheel.	464,680	Dec. 8	1035	259	57	1342
Superior Drill Company. (See Cook and Patric, assignors.)						
Superior Drill Company. (See Patric, Charles E., assignor.)						
Superior Drill Company. (See Paekham, Frank R., assignor.)						
Superlative Purifier Manufacturing Company. (See Esche, Ottomar, assignor.)						
Suppes, Maximilian M., assignor to Johnson Company, Johnstown, Pa. Railway-rail.	460,063	Sept. 22	2391	{ 597 598	{ 56	1548
Suppes, Maximilian M., assignor to Johnson Company, Johnstown, Pa. Railway-rail.	460,064	Sept. 22	2392	{ 598 599	{ 56	1548
Suppes, Maximilian M., assignor to Johnson Company, Johnstown, Pa. Making railway-rails.	460,096	Sept. 22	2444	611	56	1558
Sunbridge, Raymond G., Joliet, Ill. Bicycle.	450,705	Apr. 21	1647	395	55	337
Sunby, Richard W., Battle Creek, Mich. Fluid for rendering oil-paint indelible.	459,691	Sept. 15	1818		56	1433
Susemihl, Francis G., assignor of two-thirds to A. G. Dailey and J. D. Hawks, Detroit, Mich. Coal-chute.	455,585	July 7	467	122	56	91
Susiné, Paul de, Paris, France. Ether-engine.	459,317	Sept. 8	1292	293	56	1307
Susini, Paul de, Paris, France. Motor-engine worked by the vapor of ether and other volatile liquids.	451,342	Apr. 28	2648	655	55	538
Suspension Car Truck Manufacturing Company. (See Canda, Ferdinand E., assignor.)						
Suteliffe, Ely and G. E., Mirfield, England. Apparatus for washing, dyeing, and treating textile materials.	463,846	Nov. 24	2586	673	57	1075
Suteliffe, George E. (See Suteliffe, Ely and G. E.)						
Suteliffe, William W., New Orleans, La. Steam-boiler.	455,805	July 14	834	219	56	169
Sutherland, Alexander M., New York, N. Y. Gas-retort.	449,142	Mar. 31	3027	765	54	1729
Sutherland, Alexander M., New York, N. Y. Gas-making apparatus.	466,283	Dec. 29	3653	934	57	1871
Sutherland, Thomas, Stillwater, Minn. Motor.	447,648	Mar. 3	609	150	54	1233
Sutley, William R., Mitchell, S. D. Trunk attachment.	447,625	Mar. 3	578	143	54	1236
Sutphen, Clinton, assignor of one-half to E. H. Hinton, New York, N. Y. Transit-instrument.	444,602	Jan. 13	973	252	54	201
Sutphou, John W., and D. D. Bray, Asbury Park, N. J. Lifting-jack.	454,302	June 16	1678	439	55	1485
Sutton, Andrew H., New York, N. Y. Plicating-machine.	466,023	Dec. 29	3251	{ 828 829	{ 57	1793
Sutton, Andrew H., assignor of one-half to E. P. Watson, New York, N. Y. Cloth-folding machine.	466,024	Dec. 29	3254	829	57	1793

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Sutton, Benjamin F., <i>et al.</i> (See Mitchell, Edward W., assignor.)						
Sutton, Charles E. (See Chaddock, Sutton, and McCullough.)						
Sutton, John, Islip, N. Y. Filtration.....	460,271	Sept. 29	2719	{ 677 678 }	56	1619
Sutton, John W., New York, N. Y. Game-board.....	447,088	Feb. 24	2587	642	54	1041
Sutton, Kenneth I., Centerville, Tenn. Cradle-motor.....	459,555	Sept. 15	1598	400	56	1391
Sutton, William H., assignor of one-half to R. G. Green, West Plains, Mo. Railway-joint.....	451,164	Apr. 28	2356	585	55	483
Sutton, William S., Boundary City, Ind. Fence.....	449,602	Mar. 31	3789	951	54	1870
Suydam, John, Schenectady, N. Y. Automatic pipe-coupling.....	461,532	Oct. 20	1618	{ 395 396 }	57	324
Suydam, John, Schenectady, N. Y. Automatic pipe-coupling for railway-cars.....	461,778	Oct. 20	2013	496	57	399
Svedberg, John A., Sterling, Va. Coil steam-boiler.....	459,528	Sept. 15	1555	387	56	1383
Svenson, John A. F., Scranton, Pa. Plotter.....	461,879	Oct. 27	2178	537	57	440
Svensson, John H. (See Dahlgren and Svensson.)						
Swager, Nelson, assignor to Norwegian Plow Company, Dubuque, Iowa. Attachment for tongueless plows.....	466,197	Dec. 29	3515	899	57	1845
Swager, Nelson, assignor to Norwegian Plow Company, Dubuque, Iowa. Sulky or riding plow.....	466,284	Dec. 29	3654	{ 934 935 }	57	1871
Swain, Calvin L. and G. F., assignors of one-half to E. E. P. Truesdell, Belvidere, Ill. Steam-engine.....	459,370	Sept. 8	1287	{ 317 318 }	56	1324
Swain, Charles R., Peekskill, N. Y. Pallet-brick re-presser.....	465,978	Dec. 29	3154	808	57	1775
Swain, George F. (See Swain, Calvin L. and G. F.)						
Swain, Hadwen, San Francisco, Cal. Printing-press.....	463,997	Nov. 24	2842	736	57	1123
Swain, Hadwen, San Francisco, Cal. Printing-press.....	464,485	Dec. 1	732	179	57	1274
Swain, James E. (See Smith and Swain.)						
Swain, John F. (See Crooker, William W., assignor.) (Reissue.)						
Swallow, Fred, and H. Yust, Seneca, Mo., said Swallow assignor to said Yust. Flour-sifter.....	460,493	Sept. 29	3050	765	56	1681
Swan, Alfred, Orange, N. J., assignor to Insulite Manufacturing Company, New York, N. Y. Electric switch.....	461,456	Oct. 20	1435	361	57	292
Swan, Alfred, Orange, N. J., assignor to Insulite Manufacturing Company, New York, N. Y. Electric switch.....	463,396	Nov. 17	1886	492	57	932
Swan, Charles, Corry, Pa. Reversing gear for steam-engines.....	446,746	Feb. 17	2014	502	54	923
Swan, Charles and M., Corry, Pa. Target-trap.....	444,373	Jan. 6	609	157	54	120
Swan, Charles, and G. M. White, Glenburn, Ill. Mine-door.....	456,446	July 21	1823	483	56	364
Swan, Charles E., assignor of one-half to I. J. Evans, Rome, N. Y. Elastic washer.....	454,085	June 16	1364	335	55	1423
Swan, Frederick A., <i>et al.</i> (See Small, Frederick E., assignor.)						
Swan, James. (See Swan, William B., assignor.)						
Swan Lamp Manufacturing Company. (See Roberts, Edward P., assignor.)						
Swan, Maggie. (See Swan, Charles and M.)						
Swan, William B., assignor to J. Swan, Seymour, Conn. Draw-shave.....	448,464	Mar. 17	1958	492	54	1509
Swan, William W., assignor of one-half to F. S. Pew, Andover, S. D. Carriage-top adjuster.....	453,522	June 2	538	138	55	1249
Swaney, Charles E., Camden, N. J. Game-board.....	456,171	July 21	1368	363	56	279
Swanfeldt, Victor, Clarence, Ill. Broadcast seeding-machine.....	454,158	June 16	1468	386	55	1444
Swanson, Ludvig, assignor of one-half to O. Engwall, Chicago, Ill. Tricycle.....	461,289	Oct. 13	1153	294	57	230
Swanson, Pountas, Chicago, Ill. Portable hose-bridge.....	455,586	July 7	469	192	56	91
Swart, Christopher J., Goshen, Ind. Umbrella or parasol.....	440,542	Feb. 17	1706	419	54	863
Swart, Lester D. (See Brinkerhoff, Stevens, and Swart.)						
Swart, Lester D. (See Stevens and Swart.)						
Swarthout, James E., Elmira, N. Y. Balance-staff for time-keepers.....	457,681	Aug. 11	1226	315	56	770
Swartwout, Emma J., Newark, N. J., assignor to Delsarte Corset Company. Corset.....	458,362	Aug. 25	2189	534	56	969
Swartwout, Emma J., Newark, N. J., assignor to Delsarte Corset Company. Shoulder-brace jacket.....	460,166	Sept. 29	2558	638	56	1588
Swartz, Henry N., Milton, Pa. Window-screen.....	444,734	Jan. 13	1188	307	54	241
Swartz, Oscar D., York, Nebr. Wall-paper exhibitor.....	452,398	May 19	1546	{ 383 384 }	55	884
Swartz, William P., Telluride, Colo., assignor of three-fourths to W. H. Shaw and W. H. Behl, Scotland, S. D. Distilling apparatus.....	454,778	June 23	2427	623	55	1633
Swartzwelder, Harrison. (See Spear, James M., assignor.)						
Swedberg, Edward. (See Swedberg, Oliver and E.)						
Swedberg, Oliver and E., Rantoul, Ill. Plow.....	455,834	July 14	880	231	56	177
Sweeney, Andrew J., and T. A. Myers, Wheeling, W. Va. Support for articles while being ground.....	455,418	July 7	194	50	56	40
Sweeney, David H., Fitchburg, Mass. Plate or pie lifter.....	450,477	Apr. 14	1263	308	55	247
Sweeney, Edward M. (See Richmond, James W., assignor.)						
Sweeney, James H., Franklin, Tenn. Car-coupling.....	464,836	Dec. 8	1277	320	57	1388
Sweeney, John F., San Francisco, Cal. Perch for bird-cages.....	447,006	Feb. 24	2444	608	54	1014
Sweeney, John J., New York, N. Y. Machine for making stove-boards.....	454,951	June 30	2757	{ 702 703 }	55	1700
Sweeney, John J., New York, N. Y. Machine for making paper-lined stove-boards.....	460,764	Oct. 6	365	90, 91	57	72
Sweeney, John J., New York, N. Y. Manufacture of stove-boards.....	461,137	Oct. 13	897	233	57	180
Sweeney, John M., Lebanon, assignor of one-half to J. Lang, Jr., Cincinnati, Ohio. Show-case.....	445,129	Jan. 20	1846	478	54	376
Sweeney, Michael D., Berkeley, R. I. Money-changing machine.....	463,375	Nov. 17	1845	482	57	925
Sweeney, Oliver, New York, N. Y. Lamp.....	449,978	Apr. 7	496	124	55	96
Sweeny, Thomas J., assignor to Penberthy Injector Company, Detroit, Mich. Injector.....	459,601	Sept. 15	1675	418	56	1405
Sweeny, William H., Worcester, Mass. Hair-curler.....	451,984	May 12	837	214	55	745
Sweesy, Thaddeus, Bradford, Pa. Inkstand.....	451,741	May 5	460	112	55	666
Sweet, Augustus L., <i>et al.</i> (See Brown, James W., assignor.)						
Sweet, Edgar A., assignor of one-half to J. L. Buxton, Milford, Mass. Automatic switch-board and safety cut-out for electric circuits.....	448,166	Mar. 10	1444	369	54	1402
Sweet, Eli, Athens, Pa. File-cutting machine.....	461,720	Oct. 20	1915	{ 473 474 }	57	380
Sweet, Eli, and G. M. Ferguson, Athens, Pa. Sash-holder.....	458,767	Sept. 1	328	79	56	1128
Sweet, Frank E. (See Fishel and Sweet.)						
Sweet, Harlan P., Los Angeles, Cal. Metallic railway tie and chair.....	446,899	Feb. 24	2286	569	54	985
Sweet, Harlan P., Los Angeles, Cal. Metallic road-bed drain and safety-tie.....	446,900	Feb. 24	2287	569	54	985
Sweet, Larnline, Loami, Ill. Band-cutting and feeder.....	451,505	June 23	2001	518	55	1553
Sweet, William A., Syracuse, N. Y. Pool-ball frame.....	464,745	Dec. 8	1147	{ 284 285 }	57	1362
Sweetland, Frank, Angola, N. Y. Hitching device.....	450,382	Apr. 14	1124	275	55	221
Sweetser, William U. (See Hall and Sweetser.)						
Swegles, John, Wayne, Mich. Axle-cutter.....	455,835	July 14	881	231	56	178
Swenson, Albert. (See Tallas and Swenson.)						
Swenson, Frederick, Belvidere, Ill. Insect-trap.....	464,400	Dec. 1	613	151	57	1250

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Swenson, Magnus, Fort Scott, Kans. Evaporator.....	457,234	Aug. 4	472	124	56	622
Swett, Greenleaf L., Leominster, assignor of one-half to C. H. Wilder, Boston, Mass., and L. A. Wilder, Chicago, Ill. Heater for hydrocarbon oils.....	462,175	Oct. 27	2630	656	57	526
Swett, Nathaniel A., Westbrook, Me. Puzzle.....	451,958	May 12	795	201	55	737
Swett, Sullivan C., assignor of two-thirds to J. W. Brown and F. G. Alexander, Washington, D. C. Grip for elevator shifting-ropes.....	444,556	Jan. 13	910	236	54	189
Swieter, Paul, Allegheny, Pa. Mortising-machine.....	455,646	July 7	563	{ 145 146 }	{ 56 }	109
Swift, Alfred A. (See Perrigo and Swift.)						
Swift, Charles E., Tonica, Ill. Derrick.....	463,009	Nov. 10	1248	324	57	802
Swift, Daniel W. (See Swift, Henry D. and D. W.)						
Swift, Edgar D., New York, N. Y. Sandpapering-machine.....	444,155	Jan. 6	290	69,70	54	59
Swift, Henry D., Worcester, Mass. Elevator-guard.....	456,641	July 28	2142	567	56	434
Swift, Henry D. and D. W., assignors of one-half to J. Logan and J. S. Brigham, Worcester, Mass. Envelope-machine.....	466,122	Dec. 29	3400	871	57	1823
Swift, Horace E., Boston, Mass. Combined fuse-block and incandescent lamp.....	455,419	July 7	106	30	56	24
Swift, Horace E., Boston, Mass. Electric-lamp socket.....	458,242	Aug. 25	2144	525	56	962
Swift, R. K., Sterling, Ill., assignor to Empire Manufacturing Company, Keokuk, Iowa. Disk cultivator.....	460,515	Sept. 29	3099	775	56	1692
Swigert, Samuel T., Chicago, Ill. Tellurian.....	455,419	July 7	195	50,51	56	41
Swihart, James, Riota, Ohio. Alarm-lock.....	456,783	July 28	2385	627	56	479
Swindell, William, Allegheny, Pa. Furnace.....	463,176	Nov. 17	1527	{ 397 398 }	{ 57 }	863
Swinden, Edward V., and J. Earp, Liverpool, England. Photographic apparatus.....	445,911	Feb. 3	644	158	54	639
Swindler, William R., Findlay, Ohio. Washing-machine.....	455,367	July 7	106	30	56	24
Swinglehurst, Harry, assignor to R. Pilling and R. Madeley, Philadelphia, Pa. Thickening-thread mechanism for knitting-machines.....	459,260	Sept. 8	1115	{ 272 273 }	{ 56 }	1289
Swinscoe, Henry K., Clinton, Mass. Galvanizing metal.....	461,251	Oct. 13	1098	280	57	219
Switzer, D. H. (See Rutherford and Robberson, assignors.)						
Switzer, J. D. (See Whiles, Marian, assignor.)						
Swoboda, Ludwig J., Minneapolis, Minn. Feeder.....	451,532	May 5	128	32	55	604
Swogger, William H., New Wilmington, Pa. Gate.....	447,132	Feb. 24	2640	655	54	1052
Swope, Joel. (See Manny, Walter B., assignor.)						
Swope, Luther A., Chicago, Ill. Device for determining points in laying out rectangular courts.....	464,205	Dec. 1	313	76	57	1193
Swope, Sheldon, Terre Haute, Ind. Rake.....	446,482	Feb. 17	1614	396	54	846
Sykes, Albert M., Philadelphia, Pa., assignor of one-half to C. C. Webber, Wilmington, Del. Valve-gear.....	454,411	June 16	1855	485	55	1517
Sykes, Byron H. (See Pike and Sykes.)						
Sykes, David. (See Sykes, Ezra and D.)						
Sykes, Ezra and D., Huddersfield, England. Hardening serrated bands.....	452,858	May 26	2278	572	55	1031
Sykes, Herbert D. (See King, Charles L., assignor.)						
Sylvester, Cyrus O., assignor of one-half to G. H. Beach and S. G. McKee, Olathe, Kans. Power-windmill.....	454,412	June 16	1856	485	55	1518
Sylvester, Davis L., Philadelphia, Pa., assignor to Allison Manufacturing Company, of Pennsylvania. Cattle or stock car.....	447,919	Mar. 10	1067	{ 267 268 }	{ 54 }	1327
Sylvester, Isaiah W., Passaic, N. J. Commode.....	465,569	Dec. 22	2507	640	57	1641
Sylvia, George, Waltham, Mass. Watch-maker's staking tool.....	450,263	Apr. 14	926	230	55	184
Symonds, Clarence M., San Francisco, Cal. Can-faucet.....	455,465	July 7	263	67	56	53
Symonds, Frederick H., New York, N. Y. Time-stamp.....	465,683	Dec. 22	2687	685	57	1674
Synnestvedt, Paul, Chicago, Ill. Train signaling apparatus.....	465,396	Dec. 15	2222	{ 570 571 }	{ 57 }	1576
Synnestvedt, Paul, Chicago, Ill. Train signaling apparatus.....	465,501	Dec. 22	2388	611	57	1618
Syracuse Specialty Manufacturing Company. (See Hisley, Stephen T., assignor.)						
Syracuse Specialty Manufacturing Company. (See Nase, John, assignor.)						
Syverud, Lewis A., Canton, S. D. Gopher-trap.....	449,011	Mar. 24	2820	714	54	1681
Szamoit, Miecislans R. (See Brewerton and Szameit)						
Szarkowski, John M., Minto, N. D. Shoe for grain-drills.....	452,245	May 12	1293	324	55	828
Szawinsky, Julius, and S. Groza, Braila, Roumania. Grain-scouring apparatus.....	455,132	June 30	3081	785	55	1764
Szeczy, Julius von, Kun-Szent-Miklos, Austria-Hungary. Lock.....	450,778	Apr. 21	1751	424	55	357
Taber, Orrin, Nashua, N. H., assignor to Nashua Saddlery Hardware Co. Harness-saddle.....	463,998	Nov. 24	2844	736	57	1123
Tabor, David J., et al. (See Carr, Warren H., assignor.)						
Tabor, Harris, Elizabeth, N. J., assignor to Tabor Manufacturing Company, New York, N. Y. Molding-machine.....	448,596	Mar. 17	2158	540	54	1547
Tabor, Lorin R., Westford, assignor to Vermont Farm Machine Company, Bellows Falls, Vt. Evaporating sirup.....	457,097	Aug. 4	257	67	56	582
Tabor Manufacturing Company. (See Tabor, Harris, assignor.)						
Taccone, Nicholas, Birmingham, Ala. Clipper.....	446,823	Feb. 17	2132	530	54	949
Tachytape Manufacturing Company. (See Johnson, Frank A., assignor.)						
Tack, Jean, Newark, N. J. Cash-recorder.....	452,930	May 26	2397	606	55	1053
Tacket, William, and P. Raddas, Herman, Nebr. Washing-machine.....	449,834	Apr. 7	295	77	55	58
Tackman, Otto, Yonkers, N. Y. Steam-engine.....	454,086	June 16	1364	355	55	1423
Taft, Arthur M. (See Behrens, Henry R., assignor.)						
Taft, George W., Kennett Square, Pa. Rock or ore crusher.....	458,740	Sept. 1	291	72	56	1121
Taft, Stephen, Millbury, Mass. Fire-escape.....	459,228	Sept. 8	1070	260	56	1280
Taggart, Rollin C., Defiance, Ohio. Prop-block for carriages.....	464,594	Dec. 8	899	221	57	1316
Tagliabue, Charles J., Brooklyn, N. Y. Clinical thermometer.....	451,343	Apr. 28	2649	655	55	538
Tahash, Charles, assignor of one-half to C. Brems, Plymouth, Mich. Thill-coupling.....	454,236	June 16	1580	416	55	1466
Taintor, Charles C., Elizabeth, N. J., assignor to Taintor Manufacturing Company, New York, N. Y. Saw-set.....	451,644	May 5	307	75	55	637
Taintor, Charles C., Elizabeth, N. J., assignor to Taintor Manufacturing Company, New York, N. Y. Saw-set.....	452,399	May 19	1547	384	55	884
Taintor, Giles, Worcester, Mass. Electro-magnetic cut-out.....	447,529	Mar. 3	436	107	54	1199
Taintor Manufacturing Company. (See Taintor, Charles C., assignor.)						
Taintor, Myron F., and W. T. Mather, Easthampton, Mass. Button-feeding device.....	461,649	Oct. 20	1799	{ 443 444 }	{ 57 }	358
Tait, Richard, Chicago, Ill. Valve for water-tanks.....	451,394	Apr. 28	2721	676	55	551
Taite, John C., et al. (See Holden, James, assignor.)						
Takken, Evert, Douglas, Mich. Wheel.....	464,837	Dec. 8	1278	321	57	1388
Talbot, Adjuter, and J. Matot, North Adams, Mass. Attachment-holder for sewing-machines.....	454,952	June 30	2759	703	55	1700
Talbot, William, Philadelphia, Pa. Warp-operating mechanism for cross-weaving.....	453,714	June 9	851	220	55	1316
Talbot, William, Philadelphia, Pa. Woven fabric.....	457,410	Aug. 11	810	208	56	69

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Talbot, William, Philadelphia, Pa. Loom.....	457,411	Aug. 11	811	{ 208 209 }	56	691
Talbott, Sylvanus J., Milford, N. H., assignor to M. F. Eldredge, trustee, Lynn, Mass. Leather-cutting machine.....	459,715	Sept. 15	1859	466	56	1441
Talcott, Richard H. L., Boston, Mass. Implement for mounting pictures on glass.....	448,692	Mar. 24	2329	584	54	1587
Taliaferro, John C., Richmond, Va. Die for welding links.....	453,220	June 2	60	16	55	1160
Tallás, Andrew J., and A. Swenson, Duluth, Minn. Fire-escape.....	453,134	May 26	2737	690	55	1120
Tallás, Andrew J., and A. Swenson, Duluth, Minn. Car-mover.....	460,167	Sept. 29	2559	638	56	1588
Tallerday, Franklin G., Poplar Grove, Ill., assignor of one-fourth to L. Le Duc, Tryon City, N. C. Thill-coupling.....	455,806	July 14	836	220	56	169
Talley, James M., Mesquite, Tex. Device for measuring and folding dress goods, &c.....	464,904	Dec. 8	1374	{ 345 346 }	57	1406
Talley, Orren P., Richmond, N. C. Roofing-seamer.....	454,303	June 16	1679	440	55	1485
Tallmadge, James W., Albany, assignor to Electric Gas Machine Company, Castleton, N. Y. Apparatus for the manufacture of hydrogen gas.....	452,246	May 12	1294	{ 324 325 }	55	828
Tallman, David F., Lyme, N. H. Vise.....	454,779	June 23	2427	623	55	1633
Tallman, Ira E., Paterson, N. J. Pencil-sharpener.....	450,433	Apr. 14	1201	293	55	236
Tangeman, Charles O., Fern Bank, Ohio. Receipt-book.....	456,862	July 28	2519	{ 661 662 }	56	503
Tangeman, Charles O., Fern Bank, Ohio. Railway-ticket.....	462,516	Nov. 3	461	113	57	635
Tank, Ernst H., Holstein, Iowa. Draft-equalizer.....	459,026	Sept. 8	756	183	56	1220
Tannenbaum, Morris, and M. Gottliner, New York, N. Y. Marking-tool for lathes.....	461,966	Oct. 27	2318	575	57	467
Tannenberg, August O., assignor of one-half to W. H. Bofinger, New Orleans, La. Diamond-grooved pencil-grinder.....	462,600	Nov. 3	598	147	57	666
Tanner, Henry, Buffalo, N. Y. Vestibule-car.....	450,343	Apr. 14	1060	260	55	209
Taoner, Jesse J., assignor of one-half to R. J. Fish and D. C. Burke, Oneida, N. Y. Extension-clamp.....	444,510	Jan. 13	839	218	54	175
Tanner, Samuel W., Cleveland, Ohio. Vestibule-car.....	461,927	Oct. 27	2263	560	57	456
Tanner, William J., London, England, assignor to Electro-Amalgamator Company, of New Jersey. Apparatus for washing and separating gold and silver from their ores.....	460,722	Oct. 6	307	75	57	60
Tannenwitz, Edward, Grand Rapids, Mich. Vehicle-wheel.....	444,410	Jan. 6	673	175	54	133
Tapley, Daniel J., Newtown, N. Y. Photographic camera.....	457,857	Aug. 18	1523	396	56	837
Tapley Machine Company. (See Richardson, Everett P., assignor.)						
Taplin, Aldin B. and H. Lawrence, assignors to Knowles Loom Works, Worcester, Mass. Protector stopping mechanism for looms.....	460,100	Sept. 22	2449	612	56	1560
Taplin, Alvin. (See Brown and Taplin.)						
Taplin, Homer. (See Taplin, Aldin B. and H.)						
Taplin, Rice & Company. (See Bradley, Ernest W., assignor.)						
Tapp, Lacy L., assignor of one-half to J. W. Whittinghill, Madisonville, Ky. Axle-skein for vehicles.....	449,979	Apr. 7	497	124	55	96
Tappan, Berry & Company. (See Nelson, Nels, assignor.)						
Tappan, Burke M. (See C. rp. Willis B., assignor.)						
Tarp, Waldemar, San Francisco, Cal. Apparatus for heating and ventilating rooms.....	464,698	Dec. 8	1073	266	57	1349
Tartt, Pembroke S., Wingo, Ky. Side-bar vehicle.....	462,070	Oct. 27	2466	612	57	495
Tasker, Thomas G., Wyoming, Iowa. Attachment for plows.....	445,267	Jan. 27	2073	535	54	428
Tata, Khurshedji M., Navsari, near Bombay, India. Pocket-knife.....	453,296	June 2	177	49	55	1181
Tata, Khurshedji M., Navsari, near Bombay, India. Shoe-horn.....	460,045	Sept. 22	2365	591	56	1543
Tate, Louis H. (See Lancaster, Charles P., assignor.)						
Tatham, Roger. (See Knowles and Tatham.)						
Tatro, Joseph A., Beaver Falls, Pa. Device for coiling wire rods.....	451,081	Apr. 28	2221	549	55	455
Tattersall, William, Bradford, England. Apparatus for humidifying air.....	445,094	Jan. 20	1788	460	54	365
Taube, Albert, Morrison, Mo. Washing-machine.....	454,933	June 30	2726	695	55	1694
Tauber, Johann C., Plain City, Ohio. Fence.....	444,225	Jan. 6	400	99	54	79
Taxes, James B., Crisfield, Md. Oyster-tongs.....	449,012	Mar. 24	2820	714	54	1681
Taximeter-Fabrik Westendarp & Pieper. (See Deneker and Erhardt, assignors.)						
Taylor, Josias, New York, N. Y. Gas-mixing machine.....	446,086	Feb. 10	943	231	54	703
Taylor, A. D., et al. (See Walter, Edward, assignor.)						
Taylor, Albert, et al. (See Portis, Silas, assignor.)						
Taylor, Albert, and N. Brooke, Hipperholme, England. Apparatus for molding earthenware articles.....	452,202	May 12	1227	310	55	813
Taylor, Alfred P., assignor of two-thirds to S. Y. Graebing and C. E. Rinn, Denver, Colo. Wheel-hub.....	453,569	June 2	611	156	55	1263
Taylor, Barden W., Los Angeles, Cal. Feed-water heater.....	458,698	Sept. 1	234	55, 56	56	1110
Taylor, Brownlee W., et al. (See Berne, Arthur W., assignor.)						
Taylor, Carlo R., assignor of one-half to J. T. Whitcomb, Berlin, Wis. Independent check for horses.....	444,677	Jan. 13	1090	282	54	223
Taylor, Charles G., et al. (See Robertson, James H., assignor.)						
Taylor, Charles H., Lincoln, Nebr. Conveyor-chain.....	462,417	Nov. 3	322	79	57	612
Taylor & Co., C. V. (See Halpenny, Martin, assignor.)						
Taylor Company. (See Smedes, Levi K., assignor.)						
Taylor, David H., Cincinnati, Ohio. Type-writing machine.....	451,082	Apr. 28	2222	550	55	456
Taylor, Deboas and W. M., Black Jack Grove, Tex. Car-coupling.....	466,123	Dec. 29	3405	871	57	1824
Taylor, Edward E., Newport, R. I. Clothes-line elevator.....	456,070	July 14	1220	321	56	240
Taylor, Edward H., Trenton, N. J. Coupling.....	454,922	June 30	2704	691	55	1690
Taylor, Edward N. (See Layer and Taylor.)						
Taylor, Edwin F., Farlong, Pa. Gleaner attachment for reapers and binders.....	459,217	Sept. 8	1057	257	56	1277
Taylor, Elbert C., Humansville, assignor of one-half to E. N. La Veine, Kansas City, Mo. Artificial tooth.....	451,959	May 12	796	201	55	737
Taylor, Enoch L., Philadelphia, Pa. Metallic railway-tie and rail-fastening.....	461,775	Oct. 20	2009	495	57	398
Taylor, Eugene H. (See Fahney and Taylor.)						
Taylor, Eugene H., Lynn, Mass., assignor to Cushman Paper Box Company, Portland, Me. Wetter for paper-box machines.....	453,987	June 9	1223	318	55	1390
Taylor, Penner B., assignor to Pneumatic Gun Carriage and Power Company, Washington, D. C. Mortar-carriage.....	458,554	Aug. 25	2654	646	56	1058
Taylor, Frederick A. (See Henry and Taylor.)						
Taylor, Frederick G., Cranston, R. I. Support for bicycles.....	453,094	May 26	2677	674	55	1109
Taylor, Frederick G., Cranston, R. I. Bicycle-support.....	456,347	July 21	1651	437	56	333
Taylor, Frederick G., Cranston, R. I. Bicycle-support.....	456,348	July 21	1652	437	56	333
Taylor, Frederick W., Philadelphia, Pa. Boring and turning mill.....	448,277	Mar. 17	1651	{ 420 421 }	54	1451
Taylor, Gallatin A. (See Hall, Langley, Jr., assignor.)						
Taylor, George, Liverpool, England. Disinfecting apparatus for closet-cisterns.....	451,344	Apr. 28	2649	656	55	538
Taylor, George H., New York, N. Y. Beaded rucking.....	463,651	Nov. 24	2296	603	57	1020

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Taylor, Harriet N. (See McCombs, Robert, assignor.)						
Taylor, Harry, New York, N. Y. Curtain-pole support.	461,376	Oct. 13	1304	329	57	260
Taylor, Harry, New York, N. Y. Curtain-pole socket.	461,377	Oct. 13	1305	330	57	260
Taylor, Henry F., and W. P. Struvé, Briton Ferry, England. Apparatus for tinning plates	453,304	June 2	191	52, 53	55	1183
Taylor, Henry F., and W. P. Struvé, Briton Ferry, England. Apparatus for coating plates with tin	460,685	Oct. 6	249	61	57	50
Taylor, Hiram, Northampton, and D. E. Sherman, Springfield, Mass. Railway	450,686	Apr. 21	1617	388	55	332
Taylor, Horace H., Fresno, assignor of one-half to R. Pollard, San Luis Obispo, Cal. Ore-separator	460,732	Oct. 6	320	78, 79	57	63
Taylor, James, Beaver Falls, Pa. Saw setting and filing machine	444,163	Jan. 6	301	72, 73	54	61
Taylor, James A. (See Rice, John V., Jr., assignor.)						
Taylor, James E., Result, N. Y. Blanket-holder	458,306	Aug. 25	2259	552	56	982
Taylor, James L., Memphis, Tenn. Pipe or nut wrench	464,401	Dec. 1	614	151	57	1250
Taylor, James R., et al. (See Fuller, Charles W. B., assignor.)						
Taylor, James W. (See Taylor, Thomas A., assignor.)						
Taylor, John, Troy, N. Y. Car-truck	455,990	July 14	1105	291	56	218
Taylor, John B., Palmyra, Mo. Vertically-adjustable gate	461,121	Oct. 13	876	226	57	176
Taylor, John D., Piketon, Ohio. Railway signaling apparatus	450,645	Apr. 21	1555	374	55	320
Taylor, John D., Piketon, Ohio. Electric railway block-signal	450,646	Apr. 21	1558	{ 374 375 }	55	320
Taylor, John F. (See Merritt and Taylor.)						
Taylor, John F., West Park, N. Y. Sulky-cultivator	461,290	Oct. 13	1153	294	57	231
Taylor, John J., 2d, assignor to E. T. Hazeltine, Warren, Pa. Bottle-corking machine	445,095	Jan. 20	1789	{ 460 461 }	54	365
Taylor, John M., Pittsburg, Pa. Tronsers	464,916	Dec. 8	1387	350	57	1409
Taylor, John W., et al. (See Clark, Wesley, assignor.)						
Taylor, Kate F., Smethport, Pa. Vegetable-masher	456,863	July 28	2520	662	56	503
Taylor, Matthias E. (See Pursell, Augustus, assignor.)						
Taylor, Michael C., Grass Valley, Cal. Bedstead	462,458	Nov. 3	380	94	57	622
Taylor, Nathan. (See Fay, Forbes B., assignor.)						
Taylor, Norton B., assignor of one-third to J. F. McGillicuddy and C. A. Hnether, Sharon, Pa. Machinist's gage	465,397	Dec. 15	2225	571	57	1577
Taylor, Oliver H., Brooklyn, N. Y. Steam-generator	463,652	Nov. 24	2296	603	57	1020
Taylor, Percy B., Newark, N. J. Rotary engine	459,861	Sept. 22	2089	{ 524 525 }	56	1493
Taylor, Robert, Pittsburg, Pa. Molder's flask	456,097	July 14	1252	330	56	246
Taylor, Robert P., Gold Hill, Nev. Shingle	451,783	May 5	519	128	55	677
Taylor, Robert S., Zellwood, Fla. Gate	446,302	Feb. 10	1329	323	54	775
Taylor, Samuel, Birmingham, England. Metal-covered roof	459,980	Sept. 22	2266	569	56	1524
Taylor, Samuel C., Chicago, Ill. Window	445,384	Jan. 27	2231	578	54	461
Taylor, Samuel J., St. Thomas, N. D. Change-maker and automatic register	448,278	Mar. 17	1661	421	54	1453
Taylor, Thomas A., assignor of one-half to J. W. Taylor, Beverly, Mass. Indicator for grinding drills	464,290	Dec. 1	453	108	57	1221
Taylor, Thomas B., Jackson, Mich. Cereal food and manufacturing it	453,364	June 2	285	76	55	1201
Taylor, Thomas T. (See Davidson, John H., assignor.)						
Taylor, Thomas W., Brooklyn, N. Y. Photographic-plate-washing apparatus	448,383	Mar. 17	1831	461	54	1485
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock. (Reissue)	11,152	Mar. 17	2218	555	54	1559
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Door-knob	450,115	Apr. 7	689	{ 174 175 }	55	135
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	456,917	July 28	2615	686	56	521
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	457,753	Aug. 11	1351	350	56	798
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock-case	458,863	Sept. 1	491	120	56	1159
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	464,805	Dec. 8	1239	309	57	1380
Taylor, Will H. (See Breuer, Hynek, assignor.)						
Taylor, William H., Kewanee, Ill. Bearing-box for windmill-shafting	453,221	June 2	62	16	55	1160
Taylor, William M. (See Taylor, Dehos and W. M.)						
Taylor, William O., Malden, assignor to J. S. Mason & Co., Boston, Mass. House-door letter-box	457,497	Aug. 11	956	242	56	717
Taylor, William W., Paterson, N. J. Garbage-receptacle	464,533	Dec. 8	815	200	57	1299
Teabeaut, Daniel B. (See Kubler, John, assignor.)						
Teague, Francis, assignor to J. A. Iliffe, London, county of Middlesex, England. Electric locked switch	454,087	June 16	1366	356	55	1424
Teal, Benjamin F., Chicago, Ill. Gate for railway-crossings	464,048	Dec. 1	59	17	57	1148
Teal, Henry S. (See Kimball and Teal.)						
Teall, William B., Mason, Mich. Railway-tie	464,309	Dec. 1	484	116	57	1226
Tebbetts, Lewis B. (See Stewart, John A., assignor.)						
Tebbutt, Samuel, et al. (See Fottrell, John, assignor.)						
Tecktonius, Emil C., Racine, Wis. Band-fastener	459,421	Sept. 15	1385	347	56	1351
Tecktonius, Emil C., Racine, Wis. Hoop for wooden barrels	465,954	Dec. 29	3113	797	57	1767
Teed, Oliver F., Chicago, Ill. Type-distributing machine	457,829	Aug. 18	1470	383	56	826
Teegarden, William R., Bristol, Tenn. Car-coupling	463,177	Nov. 17	1529	399	57	864
Teefor, Abe L., Indianapolis, Ind. Bicycle	453,053	May 26	2600	657	55	1093
Teefor, Abe L., Indianapolis, Ind. Ball-bearing	456,664	July 28	2180	578	56	442
Tell, Michael, Vienna, Austria-Hungary. Litter	455,778	July 14	778	205	56	158
Tellier, Charles, Paris, France. Apparatus for the manufacture of gas	449,809	Apr. 7	253	64	55	51
Templin, Joseph H., Reading, Pa., assignor, by mesne assignments, to T. V. Allis, New York, N. Y. Die for use in making barbed fencing	450,044	Apr. 7	585	145	55	113
Templin, Joseph H., Reading, Pa., assignor, by mesne assignments, to T. V. Allis, New York, N. Y. Die for use in making barbed fencing	450,045	Apr. 7	586	145	55	113
Templin, Joseph H., Reading, Pa., assignor, by mesne assignments, to T. V. Allis, New York, N. Y. Die for use in making barbed fencing	450,046	Apr. 7	587	146	55	113
Templin, Joseph H., Reading, Pa., assignor, by mesne assignments, to T. V. Allis, New York, N. Y. Die for use in making barbed fencing	450,047	Apr. 7	589	146	55	113
Templin, Joseph H., Reading, Pa., assignor, by mesne assignments, to T. V. Allis, New York, N. Y. Die for use in making barbed fencing	450,048	Apr. 7	590	146	55	114
Templin, Joseph H., Reading, Pa., assignor, by mesne assignments, to T. V. Allis, New York, N. Y. Die for use in making barbed fencing	450,049	Apr. 7	591	146	55	114

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Templin, Joseph H., Reading, Pa., assignor to M. H. Cashman, New York, N. Y. Die for use in making barbed fencing.....	457,941	Aug. 18	1673	438	56	864
Ten Eyck, William, Oakland, Cal. Self-closing gas-burner.....	445,612	Feb. 3	147	38	54	540
Ten Eyck, William, Oakland, Cal. Self-closing gas-burner.....	449,338	Mar. 31	3363	848	54	1789
Tengelsen, James T., <i>et al.</i> (See Garner, William R., assignor.)						
Tennant, George B., Chicago Ill. Straightening and bending machine.....	452,960	May 26	2453	619	55	1065
Terlinden, August, and W. Van Galen, Rees, Germany. Apparatus for regulating motion.	463,010	Nov. 10	1249	325	57	802
Terp, Olaf, Breslau, Germany. Rock-drill.....	458,601	Sept. 1	81	18	56	1081
Terpening, Charles S., Prescott, Wash. Trousers-flap supporter.....	457,682	Aug. 11	1227	315	56	771
Terrell, William S., Warren Plains, N. C. Tobacco-knife.....	457,385	Aug. 11	779	200	56	685
Terry, Arthur H., Patchogue, N. Y. Anti-rattler for thill-couplings.....	446,036	Feb. 10	863	209	54	688
Terry, Ary P., Chicago, Ill. Wheel.....	453,251	June 2	111	31	55	1169
Terry, Charles H., assignor of one-half to T. F. Lawrence, Chicago, Ill. Time stock-feeder	461,457	Oct. 20	1437	362	57	292
Terry, Coleman A., Columbus, Ohio. Parallel-ruler.....	455,779	July 14	783	206	56	159
Terry, Le Grand, Horseheads, N. Y. Door-hanger.....	454,304	June 16	1680	440	55	1485
Terry, Timothy D., assignor to Rogers, Peet & Co., New York, N. Y. Waistband.....	464,402	Dec. 1	615	151	57	1250
Terski, Leopold, Detroit, Mich. Ice-velocipede.....	455,932	July 14	1018	266	56	203
Terstegen, Fred, Elizabeth, N. J. Repeating mechanism for watches or other time-pieces. (Reissue).....	11,151	Mar. 10	1494	381	54	1412
Tesa, John F., assignor of one-half to A. Tomec, Cedar Rapids, Iowa. Railway-spike extractor.....	458,005	Aug. 18	1779	465	56	884
Teske, Gustav. (See Holmes and Teske.)						
Tesla Electric Company. (See Tesla, Nikola, assignor.)						
Tesla, Nikola, New York, N. Y. Operating arc lamps.....	447,920	Mar. 10	1068	268	54	1327
Tesla, Nikola, New York, N. Y. Alternating electric-current generator.....	447,921	Mar. 10	1070	268	54	1327
Tesla, Nikola, New York, N. Y. System of electric lighting.....	454,632	June 23	2197	567	55	1588
Tesla, Nikola, New York, N. Y. Electro-magnetic motor.....	455,067	June 30	2980	759	55	1745
Tesla, Nikola, New York, N. Y. Electrical meter.....	455,068	June 30	2982	759	55	1745
Tesla, Nikola, New York, N. Y. Electric incandescent lamp.....	455,069	June 30	2984	759	55	1746
Tesla, Nikola, New York, N. Y. Method of and apparatus for electrical conversion and distribution.....						
Tesla, Nikola, New York, N. Y. Electro-magnetic motor.....	462,418	Nov. 3	324	79	57	612
Tesla, Nikola, New York, N. Y. Electrical condenser.....	464,666	Dec. 8	1016	254	57	1339
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Electro-magnetic motor.....	464,667	Dec. 8	1017	254	57	1339
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Electro-magnetic motor.....	445,207	Jan. 27	1979	511	54	410
Tesseyman, Henry. (See Hopkins and Tesseyman.)	459,772	Sept. 22	1947	491	56	1464
Tetlow, James, assignor to Roberts Iron Works, Cambridge, Mass. Apparatus for making boilers.....	456,918	July 28	2616	686	56	521
Tettelbach, John, Cleveland, Ohio. Cooking-range.....	460,188	Sept. 29	2587	645	56	1593
Teufel, Charles, Chicago, Ill. Folding bed.....	459,210	Sept. 8	1048	254 } 56		1275
Tew, Charles F., Worcester, Mass. Thimble or collar for steam or other pipes.....	463,781	Nov. 24	2485	649	57	1055
Tewes, E. A. (See Kretschmar, Otto, assignor.)						
Textor, Joseph. (See Patterson, William J., assignor.)						
Thacher, Albert, and B. D. Gifford, Chatham, Mass. Envelope.....	461,000	Oct. 13	713	184	57	146
Thacher, Jackson V., and C. D. Wilson, Nicholson, Pa. Device for riveting.....	462,871	Nov. 10	1040	269	57	760
Thacher, John B. (See Fasoldt, Ernest C., assignor.)						
Thacker, Harry, Lake Villa, Ill. Measuring-facet.....	449,143	Mar. 31	3028	766	54	1730
Thaden, Herman, Atlanta, Ga. Turn-plow.....	458,121	Aug. 18	1942	505	56	917
Thatcher, Ewel H., St. Louis, Mo. Overhead track for railways.....	452,201	May 12	1224	309	55	812
Thatcher, John T., Frankfort, Ind. Watering-trough.....	453,894	June 9	1093	286	55	1363
Thatcher, Walter R. (See Garetson and Thatcher.)						
Thayer, Alfred I., Newark, N. J. Exercising-machine.....	448,305	Mar. 17	1706	432	54	1461
Thayer, Andrew T., New York, N. Y. Printer's furniture.....	455,070	June 30	2966	760	55	1746
Thayer, Andrew T., New York, N. Y. Printer's furniture.....	462,960	Nov. 10	1183	307	57	788
Thayer, Clifford P., Holbrook, Mass. Pocket-knife.....	445,509	Jan. 27	2417	631	54	496
Thayer, George C., New York, N. Y., assignor, by mesne assignments, to United Railway Supplies Company, of New York. Tell-tale for injectors.....	452,811	May 26	2309	554	55	1019
Thayer Heater Company. (See Thayer, James M., assignor.)						
Thayer, Horace H., Yonkers, N. Y. Safety device for elevators.....	465,585	Dec. 22	2535	645	57	1646
Thayer, James F., Providence, R. I. Button-setting tool.....	445,304	Jan. 27	2117	548	54	437
Thayer, James F., Providence, R. I. Button-fastener.....	451,083	Apr. 28	2224	550	55	456
Thayer, James F., Providence, R. I. Button-setting instrument.....	459,480	Sept. 15	1474	370	56	1368
Thayer, James M., Boston, Mass., assignor to Thayer Heater Company, Portland, Me. Hot-water heating apparatus.....	456,328	July 21	1624	430	56	327
Thayer, Russel A., and E. Everett, Allentown, Pa. Oscillating meter.....	447,140	Feb. 24	2701	669	54	1061
Thayer, Stephen A., Bloomington, Ill. Check-book.....	457,466	Aug. 11	896	231	56	706
Thayer, William O., and G. F. Wittkopf, assignors to G. F. Wittkopf & Co., St. Louis, Mo. Harness-saddle.....	462,176	Oct. 27	2632	656	57	526
Theede, Gustav H., near Malmo, Nebr. Thrashing-machine.....	461,967	Oct. 27	2318	575	57	467
Theermann, William P., Salford, assignor of one-half to J. B. Foxwell, Manchester, Eng. land. Pulsating steam-pump.....	452,400	May 19	1548	384 } 55		884
Theisen, Eduard, Cologne, Germany. Evaporating and cooling apparatus.....	444,945	Jan. 20	1568	402	54	322
Theisen, Eduard, Cologne, Germany. Condensing apparatus.....	447,123	Feb. 24	2641	655	54	1052
Theisen, Eduard, Sinzig, Germany. Condenser.....	445,096	Jan. 20	1792	462 } 54		366
Theisen, Eduard, Sinzig, Germany. Evaporating apparatus.....	447,210	Feb. 24	2812	696 } 54		1084
Theisen, Eduard, Sinzig, Germany. Evaporating apparatus.....	463,466	Nov. 17	1983	516 } 57		952
Theisen, Eduard, Sinzig, Germany. Apparatus for condensing steam.....	463,467	Nov. 17	1987	517 } 57		953
Theobald, Jacob H. (See Theobald, William H., assignor.)						
Theobald, William H., Columbus, Ohio, assignor of one-fourth to J. H. Theobald, Chicago, Ill. Envelope.....	453,252	June 2	114	31	55	1170
Thermal Electric Company. (See Favor, Lorenzo B., assignor.)						
Thermo-Electric Company. (See Iden, Charles W., assignor.)						
Theryc, Charles. (See Tommasi and Theryc.)						
Theurner, Christopher J., Newark, N. J. Secret-locking box.....	447,984	Mar. 10	1179	299	54	1348
Theurer, Jacob F., Milwaukee, Wis. Device for fermenting beer.....	452,149	May 12	1138	288	55	796
Theurer, Jacob F., Milwaukee, Wis. Apparatus for extracting lupuline.....	453,678	June 9	785	202	55	1304
Thibault, Arrias, Ottawa, Canada. Portable scaffold.....	462,934	Nov. 10	1150	298	57	781

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Thibault, Henry, and C. D. Harsin; said Thibault assignor to said Harsin and said Harsin assignor of part to J. Gambetta, Stockton, Cal. Engine.	459,885	Sept. 22	2134	536	56	1501
Thickins, Richard W., Minneapolis, assignor of one-third to E. R. Harroun, St. Paul, Minn. Grain-door for cars	449,098	Mar. 24	2950	⁷⁴⁷ 748	54	1707
Thickins, Richard W., Minneapolis, assignor of one-half to E. R. Harroun, St. Paul, Minn. Car-door	450,125	Apr. 7	702	177	55	137
Thickitt, Arthur R., et al. (See Kannenstine, Louis, assignor.)						
Thickstun, Edgar J., Belmont, Ind. Band-cutter and feeder for thrashing-machines	465,895	Dec. 29	3024	773	57	1750
Thiel, Max, Philadelphia, Pa., assignor to C. W. Harris, Hartford, Conn., and F. L. Honiss, Newark, N. J. Shade-fixture	453,026	May 26	2558	647	55	1085
Thiel, Otto H., Chicago, Ill. Apparatus for way-billing articles for shipment	447,922	Mar. 10	1072	269	54	1328
Thielen, John, Fremont, Nebr. Horse-collar fastener	450,389	Apr. 14	1131	277	55	223
Thiellesen, Hans H. (See Ostrom, Thiellesen, and Wampler.)						
Thiellesen, Hans H., Custer City, S. D. Animal-trap	463,011	Nov. 10	1250	325	57	802
Thielmann, Wilhelm, assignor to Thyssen & Company, Styrum, near Mülheim, Germany. Making pipe connections of weldable material	459,318	Sept. 8	1203	²⁹³ 294	56	1308
Thiemeyer & Co., J. H. (See Thiemeyer, William F., assignor.)						
Thiemeyer, William F., Baltimore, Md. Machine for the manufacture of boxes for the transportation of bottles	448,465	Mar. 17	1959	⁴⁹² 493	54	1509
Thiemeyer, William F., assignor to J. H. Thiemeyer & Co., Baltimore, Md. Bottle-case	456,447	July 21	1824	483	56	364
Thierry, James, Otter Lake, Mich. Wheel	463,877	Nov. 24	2648	690	57	1086
Thiers, Louis, et al. (See Sansoucy, Mack, assignor.)						
Thies, Heinrich, assignor of one-half to F. Cleff, Barmen, Germany. Dyeing aniline black	452,324	May 12	1423		55	851
Thies, John B., Dayton, Ohio. Autographic registering apparatus	455,444	July 7	230	59	56	47
Thies, John B., Dayton, Ohio. Autographic register	465,502	Dec. 22	2391	⁶¹¹ 612	57	1618
Thinnes, Jacob, Brooklyn, N. Y. Fastening for casters, door-knobs, and other articles. (Reissue)	11,171	June 23	2531	651	55	1650
Thinnes, Jacob, Brooklyn, N. Y. Expansion-fastener	462,601	Nov. 3	599	147	57	666
Thissell, Earl A., and W. H. Wilder, Florence, Mass. Vapor-burner	464,627	Dec. 8	949	234	57	1326
Thissell, Earl A., and W. H. Wilder, Florence, Mass. Vapor-burner	465,601	Dec. 22	2561	652	57	1650
Thode, Carl W. F., Hamburg, Germany. Door-spring	452,418	May 19	1580	392	55	890
Thode, Carl W. F., Hamburg, Germany. Envelope-folding machine	462,746	Nov. 10	827	²¹⁷ 218	57	720
Thoeni, Martin, assignor of one-third to D. L. Davis, Monticello, Iowa. Combined band-coupling and handle for cans	459,716	Sept. 15	1860	467	56	1441
Thoons, Burchard, and W. Henderson, New Orleans, La. Steam-trap	453,523	June 2	539	138	55	1249
Thoons, Burchard, and A. Gerdes, New Orleans, La. Ice-machine	463,958	Nov. 24	2769	718	57	1110
Tholen, John. (See Phillips, Charles, assignor.)						
Thom, Charles, and C. J. Bailey, assignors to H. W. Fleury, Aurora, Canada. Sulky-plow	462,935	Nov. 10	1151	298	57	782
Thom, Hunt R. M., Baltimore, Md. Measuring-instrument for tunnels	449,920	Apr. 7	413	103	55	81
Thom, John, Inverkip, Scotland. Steam-generator	451,742	May 5	461	¹¹² 113	55	666
Thom, Peter R., Appleton, Wis. Pulp-screen for paper-mills	444,862	Jan. 20	1425	³⁷⁰ 371	54	294
Thoma, Frank F. (See Weaver and Thoma.)						
Thomas, Achille D. (See Read and Thomas.)						
Thomas, Amos W., Philadelphia, Pa., assignor to Thomas Inflatable Tire Company. Tire for vehicle-wheels. (Reissue)	11,155	Apr. 7	708	178	55	138
Thomas, Charles O., Sr. (See Metherell, John, assignor.)						
Thomas, Charles W., et al. (See Pendleton, John H., assignor.)						
Thomas, Charles W., assignor of part to P. Van Volkenburgh, New York, and J. H. Pendleton, Brooklyn, N. Y. Electric railway	462,177	Oct. 27	2633	⁶⁵⁶ 657 658 659	57	527
Thomas, Charles W., Jersey City, N. J., assignor of five-sixths to P. Van Volkenburgh, New York, and J. H. Pendleton, Brooklyn, N. Y. Transmitting mechanism for motor-cars	464,640	Dec. 8	969	²⁴⁰ 241	57	1330
Thomas, Edward S., and J. E. Littlejohn, Cedar Rapids, Iowa. Car-coupling	450,537	Apr. 14	1343	330	55	265
Thomas, Emilien, Brussels, Belgium. Bridge	456,501	July 21	1906	⁵⁰⁴ 505	56	380
Thomas, George H., Chicopee Falls, Mass. Grater	458,041	Aug. 18	1827	476	56	894
Thomas, George W., assignor of one-half to H. S. Brewington, Baltimore, Md. Baby-jumper	462,178	Oct. 27	2638	660	57	527
Thomas, Henry C. (See Davidson, Charles O., assignor.)						
Thomas, Henry E., assignor of one-half to F. H. Hansman, San Francisco, Cal. Surf-power pump	450,434	Apr. 14	1203	293	55	236
Thomas, Henry G. (See Lowden, James J., assignor.)						
Thomas, Henry W., assignor to North Branch Steel Company, Danville, Pa. Rolls for rolling girder-rails	449,013	Mar. 24	2822	715	54	1681
Thomas Inflatable Tire Company. (See Thomas, Amos W., assignor.) (Reissue.)						
Thomas, James C., Pilot Point, Tex. Cultivator	464,124	Dec. 1	172	42	57	1170
Thomas, James M. (See Godden and Whitehurst, assignors.)						
Thomas, John, Cedar Rapids, Iowa. Harness-saddle	458,781	Sept. 1	352	85	56	1133
Thomas, John O. (See Thomas, William H. and J. O.)						
Thomas, John R., assignor to S. A. Wood Machine Company, Boston, Mass. Planing-machine	448,384	Mar. 17	1833	462	54	1485
Thomas, John W. (See Large and Thomas.)						
Thomas, Joseph, New York, N. Y. Braiding-machine	457,170	Aug. 4	362	93	56	602
Thomas, Joseph, New York, N. Y. Braiding-machine	457,171	Aug. 4	365	^{93, 94}	56	603
Thomas, Joshua, Cleveland, Ohio. Automatic feed-water regulator	454,088	June 16	1368	357	55	1424
Thomas Manufacturing Company. (See Hiser, Daniel B., assignor.)						
Thomas Manufacturing Company. (See Miller, John C., assignor.)						
Thomas, Martin E., and H. S. Coleman, Batesville, Ark. Car-axle bearing	450,800	Apr. 21	1786	434	55	364
Thomas, Mary E., Cardington, Ohio. Voltaic insole	444,735	Jan. 13	1190	308	54	241
Thomas, Merton S., Pultney, N. Y. Police-nippers	446,616	Feb. 17	1808	447	54	883
Thomas, Nathan J., Morrison, Ill. Clute for dehorning cattle	459,052	Sept. 8	796	192	56	1228
Thomas, Oscar J., assignor of one-half to J. Seebeck, Peninsula, Ohio. Automatic severing device for pulp-machines	457,467	Aug. 11	896	231	56	707
Thomas, Robert S. (See Elam, Thomas, and Hardwick.)						
Thomas, Robert S., S. W. Hardwick, and W. E. Elam, Dallas, Tex. Apparatus for handling and cleaning seed-cotton	454,146	June 16	1448	³⁷⁹ 380	55	1439
Thomas, Robert S., S. W. Hardwick, and W. E. Elam, Dallas, Tex. Machine for handling and cleaning seed-cotton	458,380	Aug. 25	2384	⁵⁸¹ 582	56	1006

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Thomas, Septimus, Scranton, Pa. Machine for sizing and cleaning coal	456,448	July 21	1826	483	56	364
Thomas, Thomas H. (See Savage, Arthur W., assignor.)						
Thomas, Thomas J. (See Harris and Thomas.)						
Thomas, Van A., assignor of one-half to A. D. Ross, Providence, R. I. Insulator	459,843	Sept. 22	2059	517	56	1486
Thomas, Van A., assignor of one-half to A. D. Ross, Providence, R. I. Detachable step for poles	459,844	Sept. 22	2060	518	56	1487
Thomas, Van A., assignor of one-half to A. D. Ross, Providence, R. I. Carbon-clamp for arc lights	459,845	Sept. 22	2061	518	56	1487
Thomas, Van A., assignor of one-half to A. D. Ross, Providence, R. I. Attachment for electric-arc lamps	459,846	Sept. 22	2062	518	56	1487
Thomas, Van A., assignor of one-half to A. D. Ross, Providence, R. I. Mast-arm for electric lights	463,586	Nov. 17	2176	575	57	989
Thomas, Van A., assignor of one-half to A. D. Ross, Providence, R. I. Insulator-bracket	463,587	Nov. 17	2178	575	57	989
Thomas, Van A., assignor of one-half to A. D. Ross, Providence, R. I. Insulator-bracket	463,588	Nov. 17	2179	575	57	989
Thomas, William, Ovington, Ill. Oscillating steam-engine	462,826	Nov. 10	965	{ 250 251 }	{ 57 57 }	747
Thomas, William, Ovington, Ill. Oscillating steam-engine	464,206	Dec. 1	314	76	57	1193
Thomas, William E., assignor, by mesne assignments, to American Safety Envelope Company, Washington, D. C. Envelope	454,237	June 16	1550	415	55	1416
Thomas, William H. and J. O., Council Bluffs, Iowa. Copy-holder	460,406	Sept. 29	2920	730	56	1657
Thomas, William J. (See Heckert, Thomas, and Heckert.)						
Thomas, William J., Danville, Pa. Wall-paper stand	463,653	Nov. 24	2299	{ 603 604 }	{ 57 57 }	1090
Thomas, William N. (See Lundahl and Thomas.)						
Thomas, William O. (See Haldeman, Charles F., assignor.)						
Thomas, William W. (See Owen, Edmund B., assignor.)						
Thomasson, Robert G., Bumpass, Va. Poultry-crate	444,561	Jan. 13	919	239	54	190
Thomasson, Thomas. (See Mayall and Thomasson.)						
Thompson, A. N., et al. (See Topi, Ettore, assignor.)						
Thompson, Adelbert L., East Avon, N. Y. Tightener and fastener for fence-wires	449,450	Mar. 31	3562	898	54	1827
Thompson, Albert T., Boston, Mass. Stereopticon	446,238	Feb. 10	1925	{ 299 300 }	{ 54 54 }	755
Thompson, Allen R. (See Babcock, Charles, assignor.)						
Thompson, Allison J., Cleveland, Ohio. Heater or radiator	462,337	Nov. 3	184	47	57	586
Thompson, Arthur N., Milwaukee, Wis. Bicycle	456,604	July 28	2077	549	56	420
Thompson, Asa H., Groton, assignor to Spaulding Brothers, Townsend, Mass. Heel-stiffener machine	457,412	Aug. 11	814	209	56	692
Thompson, Charles A. (See La Point, Flanagan, and Thompson.)						
Thompson, Charles E., Lansingburg, N. Y. Brush	464,641	Dec. 8	971	{ 241 242 }	{ 57 57 }	1331
Thompson, Charles H., assignor to Automatic Cigar Seller Company, Detroit, Mich. Coin-chute for vending-machines	446,303	Feb. 10	1330	324	54	775
Thompson, Charles W., Tomales, Cal. Gate	456,260	July 21	1518	403	56	307
Thompson, Chase. (See Luking and Thompson.)						
Thompson, David P., Lynn, Mass. Suspending device for electric lamps	451,202	Apr. 28	2434	602	55	495
Thompson, Edgar, San Francisco, Cal., assignor to Pacific Gas Engine Company, of California. Engine-governor	446,957	Feb. 24	2368	589	54	1000
Thompson, Edgar B. (See Schroyer, Charles A., assignor.)						
Thompson, Edgar B. (See Schroyer and Thompson.)						
Thompson, Edgar B., and C. A. Schroyer, Chicago, Ill. Piston-travel indicator	444,077	Jan. 6	154	38	54	33
Thompson, Edward H. (See Thompson, Francis and E. H.)						
Thompson, Evert M., Indianapolis, Ind. Shipping-case	450,435	Apr. 14	1204	294	55	236
Thompson, Francis and E. H., Allegheny, Pa. Cigar-bunching machine	459,167	Sept. 8	982	240	56	1263
Thompson, Frank H., assignor of one-half to D. Killion, Philadelphia, Pa. Clutch for arc lamps	455,071	June 30	2987	760	55	1746
Thompson, Franklin R., assignor of one-third to J. Evans, Pana, Ill. Signaling device	459,083	Sept. 8	838	203	56	1234
Thompson, Frederic P., Fredericton, Canada. Checkrein-holder	448,094	Mar. 10	1338	342	54	1380
Thompson, George A. (See Bowler, Giles, assignor.)						
Thompson, George H., et al. (See Baumgarten, Henry, assignor.)						
Thompson, George L., Chicago, Ill. Heating attachment for lamp-chimneys	460,693	Oct. 6	266	65	57	53
Thompson, George L., Chicago, Ill. Curling-iron	460,709	Oct. 6	290	70	57	57
Thompson, George L., assignor to George L. Thompson Manufacturing Company, Chicago, Ill. Frame for supporting curling-irons	463,999	Nov. 24	2845	737	57	1123
Thompson, George M., Boston, Mass. Folding stool or seat	451,084	Apr. 28	2225	551	55	456
Thompson, George T., St. Louis, Mo. Gas-holder	460,898	Oct. 6	563	142	57	110
Thompson, Henry B., Pittsburg, Pa. Mechanical telephone	466,086	Dec. 29	3343	855	57	1812
Thompson, Henry M., et al. (See D'Homergue, Louis C., assignor.)						
Thompson, Hiram F., Mayfield, Ohio. Lighting and heating attachment for vehicles	465,586	Dec. 22	2536	646	57	1646
Thompson, Isaac C., Wolfborough, N. H. Roofing for buildings	456,971	Aug. 4	77	18	56	548
Thompson, James, Toronto, Canada. Fastening for oven-doors	451,025	Apr. 28	2227	551	55	457
Thompson, James A. M., San Antonio, Tex. Car-coupling	449,014	Mar. 24	2823	715	54	1682
Thompson, John, assignor to Frey-Sheckler Company, Bucyrus, Ohio. Brick and tile cutting table	453,054	May 26	2602	{ 657 658 }	{ 55 55 }	1094
Thompson, John, assignor to Frey-Sheckler Company, Bucyrus, Ohio. Dry-clay-grinding machine	454,780	June 23	2429	{ 623 624 }	{ 55 55 }	1634
Thompson, John, assignor to Frey-Sheckler Company, Bucyrus, Ohio. Brick and tile cutting machine	456,449	July 21	1827	{ 483 484 485 }	{ 56 56 56 }	365
Thompson, John H., Collinsville, Conn. Nail-making machine	445,722	Feb. 3	339	89	54	579
Thompson, John M. (See Donnellan, Charles E., assignor.)						
Thompson, John P., Olneyville, R. I. Loom-picker	450,851	Apr. 21	1878	460	55	380
Thompson, John P., Olneyville, R. I. Loom-picker	450,852	Apr. 21	1879	460	55	381
Thompson, John P., Olneyville, R. I. Loom-swell	457,961	Aug. 18	1704	446	56	871
Thompson, John P., Olneyville, R. I. Tension-regulating device for loom-shuttles	464,444	Dec. 1	671	164	57	1262
Thompson, John W., Alvord, Tex. Seed-planter	458,346	Aug. 25	2325	{ 567 568 }	{ 56 56 }	995
Thompson, Jolly C., and S. A. Parker, Jersey, Ark. Side harrow or cultivator	449,835	Apr. 7	297	78	55	58
Thompson, Joseph, Kansas City, Kans. Splicing cables	460,407	Sept. 29	2921	730	56	1657
Thompson, Joseph W., assignor of one-half to Buckeye Engine Company, Salem, Ohio. Wire-nail machine	445,097	Jan. 20	1795	{ 463 464 }	{ 54 54 }	366
Thompson, Joshua C., assignor of one-half to C. W. Chowning, North Salem, Ind. Wire-stretcher	451,670	June 23	2270	582	55	1601
Thompson, La Marcus A., Philadelphia, Pa. Car-truck	458,200	Aug. 25	2065	535	56	947
Thompson, Lewis Q., Mokelumne Hill, Cal. Obstetrical device	459,027	Sept. 8	756	183	56	1220
Thompson, Noble E., Lynchburg, Va. Wagon-brake	454,389	June 16	1811	472	55	1508

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Thompson, Orrin B. (See Harrison and Thompson.)						
Thompson, Otis D., Elkhart, Ind. Vehicle-seat lock	457,328	Aug. 4	647	169	56	653
Thompson, Otis D., and H. F. Smith, Elkhart, Ind. Sweeper	447,381	Mar. 3	170	46.47	54	1150
Thompson, Patrick H., Bluffton, Ga. Whiffletree-hook	455,259	June 30	3285	832	55	1802
Thompson, Richard, <i>et al.</i> (See Stetson, Thomas D., assignor.)						
Thompson, Richard, assignor of one-third to L. H. Graves, London, Canada. Hydrocarbon vaporizer and burner	465,398	Dec. 15	2226	571	57	1577
Thompson, Robert. (See Haake, Carl, assignor.)						
Thompson, Robert H. (See Blaisdell, Frederick E., assignor.)						
Thompson, Roscoe H., <i>et al.</i> (See Robertson, James H., assignor.)						
Thompson, S. S. D. (See Wadsworth, John W., assignor.)						
Thompson, Samuel, Swansea, and E. W. Shackell, assignors to Thompson & Shackell, Limited, Cardiff, England. Octave-coupler for piano-fortes	455,550	July 7	404	106	56	78
Thompson & Shackell. (See Thompson and Shackell, assignors.)						
Thompson & Sons, Henry G. (See Mower, Samuel E., assignor.)						
Thompson, Thomas. (See Thompson, William S. and T.)						
Thompson, Thomas, <i>et al.</i> (See Walker, Alexander, assignor.)						
Thompson, Thomas, assignor to himself and W. S. Thompson, Townsend, Mont. Draft-equalizer	448,095	Mar. 10	1339	342	54	1380
Thompson, Thomas J. (See Rose and Thompson.)						
Thompson, William, <i>et al.</i> (See Walker, Alexander, assignor.)						
Thompson, William, Leeds, England. Apparatus for drawing fibers	461,855	Oct. 27	2133	526	57	430
Thompson, William C., Minneapolis, Minn., assignor to Western Electric Company, Chicago, Ill. Electric-circuit closer for burglar-alarms	465,602	Dec. 22	2563	652	57	1651
Thompson, William E., Milwaukee, Wis. Bicycle	447,382	Mar. 3	171	47	54	1150
Thompson, William E., Milwaukee, Wis. Spring-fork for bicycles	461,001	Oct. 13	713	184	57	146
Thompson, William F., assignor of one-half to J. Walker, Cleveland, Ohio. Wire-rod-rolling mill. (Reissue)	11,172	June 23	2532	651 652	55	1650
Thompson, William H., East Stroudsburg, Pa. Clasp	448,893	Mar. 24	2044	664	54	1646
Thompson, William H., East Stroudsburg, Pa. Hat-fastener	450,538	Apr. 14	1344	330	55	265
Thompson, William H., East Stroudsburg, Pa. Cash-recorder	454,089	June 16	1369	357	55	1424
Thompson, William H., Winnipeg, Canada. Safety locking-guard for hats, &c	452,682	May 19	1996	500	55	968
Thompson, William J., High Point, N. C. Feed-water heater	454,781	June 23	2431	624 625	55	1634
Thompson, William S. (See Thompson, Thomas, assignor.)						
Thompson, William S. and T., Townsend, Mont. Billiard-cue	450,898	Apr. 21	1942	477	55	392
Thomson, Ferdinand H. T., Bremerhaven, Germany. Safety-valve for water-gages	464,049	Dec. 1	62	17	57	1149
Thomson, Elbert, Baltimore, Md. Can-soldering machine	444,226	Jan. 6	402	100	54	80
Thomson Electric Welding Company. (See Hall and Rasmussen, assignors.)						
Thomson Electric Welding Company. (See Lemp, Hermann, assignor.)						
Thomson Electric Welding Company. (See Lemp and Anderson, assignors.)						
Thomson Electric Welding Company. (See Lemp and Schmidt, assignors.)						
Thomson Electric Welding Company. (See Rasmussen, Einar, assignor.)						
Thomson Electric Welding Company. (See Thomson, Elihu, assignor.)						
Thomson, Elihu, Lynn, Mass. Electric-railway conductor	446,483	Feb. 17	1615	396	54	846
Thomson, Elihu, Lynn, Mass. Lightning-arrester	454,672	June 23	2272	583	55	1602
Thomson, Elihu, Lynn, Mass. Adjustable transformer	461,526	Oct. 20	1610	394	57	323
Thomson, Elihu, Lynn, Mass. Controlling alternating-current induction	465,078	Dec. 15	1695	431	57	1477
Thomson, Elihu, Swampscott, Mass. Dynamo-electric motor or generator	447,384	Mar. 3	173	47	54	1151
Thomson, Elihu, Swampscott, Mass. Electric meter	448,280	Mar. 17	1665	422	54	1453
Thomson, Elihu, Swampscott, Mass. Transformer	454,090	June 16	1371	357	55	1424
Thomson, Elihu, Swampscott, Mass. Lightning-arrester	454,671	June 23	2271	583	55	1601
Thomson, Elihu, Swampscott, Mass. Lightning-arrester	454,673	June 23	2274	583 584	55	1602
Thomson, Elihu, Swampscott, Mass. Electric-arc lamp	458,025	Aug. 18	1800	470	56	888
Thomson, Elihu, Swampscott, Mass. System of electrical distribution	459,423	Sept. 15	1391	348	56	1352
Thomson, Elihu, Swampscott, Mass. Section-insulator and lightning-arrester for electric railways	463,761	Nov. 24	2462	643 644	57	1050
Thomson, Elihu, Swampscott, Mass. Electric-arc interrupter	463,762	Nov. 24	2463	644	57	1051
Thomson, Elihu, Swampscott, Mass. Lightning-arrester	464,595	Dec. 8	900	221	57	1317
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Lightning-arrester	444,678	Jan. 13	1091	283	54	223
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric-arc lamp	444,925	Jan. 20	1533	394	54	315
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric-lighting system	448,279	Mar. 17	1663	422	54	1453
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Railway-gate crossing for overhead lines	450,687	Apr. 21	1620	388 389	55	333
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Armature for dynamo-electric machines or motors	452,951	May 26	2440	615	55	1062
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Lamp cut-out and system	454,782	June 23	2433	625	55	1634
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Apparatus for removing inductive effects from electric lines	454,890	June 30	2631	675	55	1676
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Measuring electric currents	456,172	July 21	1368	364	56	279
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric motor	458,646	Sept. 1	153	36, 37	56	1095
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Dynamo-electric machine and motor	459,422	Sept. 15	1386	347 348	56	1351
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Composition for insulating material	460,765	Oct. 6	367		57	72
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Incandescent lamp	462,338	Nov. 3	185	47	57	586
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Incandescent lamp	462,339	Nov. 3	187	48	57	586
Thomson, Elihu, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Armature-core for dynamo-electric machines	463,671	Nov. 24	2322	609	57	1025
Thomson, Elihu, Lynn, Mass., assignor to Thomson Electric Welding Company, of Maine. Electric welding	444,926	Jan. 20	1535	394	54	315
Thomson, Elihu, Lynn, Mass., assignor to Thomson Electric Welding Company, of Maine. Electric welding	444,927	Jan. 20	1537	394	54	316
Thomson, Elihu, Lynn, Mass., assignor to Thomson Electric Welding Company, of Maine. Electric welding	444,946	Jan. 20	1569	402	54	322

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Thomson, Elihu, Lynn, Mass., assignor to Thomson Electric Welding Company, of Maine. Manufacturing chains by electric-welding processes.....	449,356	Mar. 31	3389	853	54	1793
Thomson, Elihu, Lynn, assignor to Thomson Electric Welding Company, Boston, Mass. Electric bending and straightening.....	458,115	Aug. 18	1929	{ 501 502 }	{ 76 }	915
Thomson, Elihu, Swampscott, Mass., assignor to Thomson Electric Welding Company, of Maine. Electric welding.....	444,928	Jan. 20	1539	395	54	316
Thomson, Elihu, Swampscott, Mass., assignor to Thomson Electric Welding Company, of Maine. Burr-preventer for electric-welding machines.....	449,357	Mar. 31	3391	854	54	1794
Thomson, Elihu, Swampscott, Mass., assignor to Thomson Electric Welding Company, of Maine. Electric welding.....	449,836	Apr. 7	298	78	55	59
Thomson, Elihu, Swampscott, Mass., assignor to Thomson Electric Welding Company, of Maine. Electric welding.....	451,345	Apr. 28	2651	{ 656 657 }	{ 55 }	539
Thomson, Elihu, Swampscott, Mass., assignor to Thomson Electric Welding Company, of Maine. Electric welding.....	455,420	July 7	199	51	56	41
Thomson, Elihu, Swampscott, Mass., assignor to Thomson Electric Welding Company, of Maine. Securing metal bands on wooden or other articles.....	455,421	July 7	200	51	56	41
Thomson, Elihu, Swampscott, Mass., assignor to Thomson Electric Welding Company, of Maine. Automatic hammer.....	455,905	July 14	980	256	56	196
Thomson, Elihu, Swampscott, Mass., assignor to Thomson Electric Welding Company, of Maine. Making tools.....	461,856	Oct. 27	2134	526	57	431
Thomson, Elihu, Swampscott, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Incandescent electric lamp.....	444,929	Jan. 20	1540	395	54	316
Thomson, Elihu, Swampscott, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. System of distributing and metering electric energy.....	444,930	Jan. 20	1543	395	54	317
Thomson, Elihu, Swampscott, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric meter.....	444,931	Jan. 20	1545	396	54	317
Thomson, Elihu, Swampscott, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric meter.....	448,894	Mar. 24	2645	664	54	1647
Thomson, Elihu, New Britain, Conn., assignor to Thomson-Houston Electric Company, of Connecticut. Electric-arc lamp.....	447,383	Mar. 3	172	47	54	1150
Thomson, Elihu, Swampscott, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Electric-arc lamp.....	461,144	Oct. 13	907	235	57	182
Thomson, Elihu, and E. W. Rice, Jr., Lynn, Mass. Electric-arc lamp.....	449,715	Apr. 7	108	28	55	23
Thomson, Elihu, Swampscott, and E. W. Rice, Jr., Lynn, Mass. Electric motor for street-cars.....	457,036	Aug. 4	155	37, 33	56	563
Thomson, Elihu, Swampscott, and W. O. Wakefield, Lynn, Mass. Brush-holder for dynamo-electric machines.....	462,973	Nov. 10	1204	313	57	792
Thomson, George. (See Closser, Billings, Thomson, and Knuth.)						
Thomson, George. (See Smith, Thomson, and Closser.)						
Thomson, George. (See Thomson, William and G.)						
Thomson, George R., and H. T. Cottrell, assignors of one-third to W. P. Stacy, Gouverneur, N. Y. Device for expanding bellies.....	463,206	Nov. 17	1570	409	57	872
Thomson, Gilbert A., Stockville, Nebr. Rotary engine.....	459,424	Sept. 15	1396	348	56	1353
Thomson-Houston Electric Company. (See Alton, George H., assignor.)						
Thomson-Houston Electric Company. (See Baker and Booth, assignors.)						
Thomson-Houston Electric Company. (See Bassett, Norman C., assignor.)						
Thomson-Houston Electric Company. (See Blackwell, Francis O., assignor.)						
Thomson-Houston Electric Company. (See Cahoon and Baker, assignors.)						
Thomson-Houston Electric Company. (See Curtiss, George F., assignor.)						
Thomson-Houston Electric Company. (See Deacon and Wightman, assignors.)						
Thomson-Houston Electric Company. (See Ekström, Axel, assignor.)						
Thomson-Houston Electric Company. (See Foster, Horatio A., assignor.)						
Thomson-Houston Electric Company. (See Hunter, Rudolph M., assignor.)						
Thomson-Houston Electric Company. (See Jones, Arthur W., assignor.)						
Thomson-Houston Electric Company. (See Rice, Edwin W., Jr., assignor.)						
Thomson-Houston Electric Company. (See Thomson, Elihu, assignor.)						
Thomson-Houston Electric Company. (See Wakefield, William O., assignor.)						
Thomson-Houston Electric Company. (See Wheeler, George K., assignor.)						
Thomson-Houston Electric Company. (See Wightman, Merle J., assignor.)						
Thomson, John, Brooklyn, assignor to Thomson Meter Company, New York, N. Y. Mechanism for controlling the action of oscillating disks.....	452,485	May 19	1698	427	55	910
Thomson, John, Brooklyn, assignor to Thomson Meter Company, New York, N. Y. Mechanism for controlling the action of oscillating disks.....	452,486	May 19	1699	427	55	910
Thomson, John, Brooklyn, assignor to Thomson Meter Company, New York, N. Y. Form of disk for oscillating-disk actions.....	452,487	May 19	1699	427	55	910
Thomson, John, Brooklyn, assignor to Thomson Meter Company, New York, N. Y. Hard-rubber disk for oscillating-disk actions.....	452,488	May 19	1700	428	55	910
Thomson, John, Brooklyn, assignor to Thomson Meter Company, New York, N. Y. Mechanism for controlling and transmitting the action of oscillating disks.....	452,489	May 19	1701	428	55	911
Thomson, John, Brooklyn, assignor to Thomson Meter Company, New York, N. Y. Differential gearing and the application thereof to water-meters.....	452,490	May 19	1702	428	55	911
Thomson, John, and F. Lambert, Brooklyn, assignors to Thomson Meter Company, New York, N. Y. Substitute for stuffing-boxes.....	452,484	May 19	1697	427	55	910
Thomson Manufacturing Company, Jandson L. (See Unbehend, Jacob J., assignor.)						
Thomson, McLeod W., Altoona, Pa. Making railway splice-bars.....	460,899	Oct. 6	564	{ 142 143 }	{ 57 }	110
Thomson Meter Company. (See Lambert, Frank, assignor.)						
Thomson Meter Company. (See Thomson, John, assignor.)						
Thomson Meter Company. (See Thomson and Lambert, assignors.)						
Thomson-Van Depoele Electric Mining Company. (See Wyman, Horace B., assignor.)						
Thomson, Walter, Fargo, N. D. Bank-account book.....	444,583	Jan. 13	951	247	54	197
Thomson, William, Glasgow, Scotland. Valve for water, steam, &c.....	447,211	Feb. 24	2815	{ 636 697 }	{ 54 }	1084
Thomson, William, Glasgow, Scotland. Apparatus for measuring and recording electric currents.....	463,558	Nov. 17	2127	561	57	979
Thomson, William, Glasgow, Scotland. Steering-machine.....	465,896	Dec. 29	3025	{ 773 774 }	{ 57 }	1750
Thomson, William, and G. Shaw, county of Lancaster, assignors to John Greenwood & Company, Limited, Hope Mill, England. Oil-feeding device for journals.....	459,084	Sept. 8	842	204	56	1235
Thomson, William H., New York, N. Y. Fence-post.....	454,506	June 23	2002	519	55	1554
Thornburn, Robert H. (See Dennes, Donald, assignor.)						
Thoresen, Peder, Svelvig, Norway. Fire-escape.....	459,319	Sept. 8	1205	294	56	1308
Thorn, John F., Ordway, S. D. Ratchet-wrench.....	458,079	Aug. 18	1877	489	56	904
Thorn, John O., Toronto, Canada. Metallic shingle.....	466,198	Dec. 29	3516	900	57	1845

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Thornburg, Charles. (See Vanderburg, Robert B., assignor.)						
Thorne, James. (See Good and Thorne.)						
Thorne, James, and E. B. Burr, London, England; said Burr assignor to said Thorne. Lens for signal or other lamps	446,304	Feb. 10	1331	324	54	775
Thornton, James, <i>et al.</i> (See Purdy, Albert L., assignor.)						
Thornton, John L., Providence, R. I. Society-badge	457,098	Aug. 4	258	67	56	582
Thornton, William C., Jefferson City, Mo. Milk-can	447,923	Mar. 19	1073	269	54	1328
Thornycroft, John I., Chiswick, England. Steam-generator	452,401	May 19	1551	386	55	8-5
Thornycroft, John I., Chiswick, England. Steam-generator	454,390	June 16	1812	472 473	55	1509
Thorp, George W., <i>et al.</i> (See Kennedy, George A., assignor.)						
Thorp, Henry H., Cleveland, Ohio. Journal-bearing	449,837	Apr. 7	300	78	55	59
Thorp, James, Lawrence, Mass. Combing-machine	464,718	Dec. 8	1108	275	57	1355
Thorp, O. B. (See Phelps, Harvey J., assignor.)						
Thorp, Sydney H., Charters Towers, Queensland. Apparatus for affixing adhesive stamps.	460,383	Sept. 29	2891	722	56	1651
Thorp, Thomas. (See Platt and Thorp.)						
Thorp, Thomas J., Chicago, Ill. Elevator	465,587	Dec. 22	2537	646 647 648	57	1646
Thorp, Thomas J., Chicago, Ill., assignor of one-half to H. F. Band, San Francisco, Cal. Car-coupling implement	444,548	Jan. 13	896	233	54	186
Thorp, Thomas J., Chicago, Ill., assignor of one-third to D. J. Brannen, Flagstaff, Ariz. Horse hay-rake	446,698	Feb. 17	1940	484	54	908
Thorp, Thomas J., assignor of one-third to C. J. Barnes, Chicago, Ill. Broom	446,901	Feb. 24	2290	570	54	985
Thorp, Thomas J., Chicago, Ill., assignor of one-third to G. N. Kneeland, Rochester, N. Y. Washing-machine	447,520	Mar. 3	418	102 103	54	1196
Thorp, Thomas J., assignor of one-third to J. M. Rice, Chicago, Ill. Umbrella	449,716	Apr. 7	110	29	55	24
Thorp, Thomas J., assignor to American Steel Pole and Post Company, Chicago, Ill. Fence-wire-stringing implement	457,138	Aug. 4	310	81, 82	56	593
Thorp, Thomas J., assignor to American Steel Pole and Post Company, Chicago, Ill. Fence-wire-tightening implement	464,207	Dec. 1	316	76, 77	57	1193
Thorpe, Edward E., Jersey City, N. J. Cork-securer	452,089	May 12	1034	262	55	777
Thorpe, Robert H., London, England. Apparatus for regulating hydraulic power	446,799	Feb. 17	2093	521 522	54	940
Thorpe, Walter F. (See Messer and Thorpe.)						
Thourot, Alphonse, Union, N. J. Waste and overflow connection for stationary wash-tubs.	455,072	June 30	2988	760	55	1746
Thrall, Stephen C., assignor of one-half to W. B. Chandler, Elk Rapids, Mich. Apparatus for making extracts	449,603	Mar. 31	3790	951	54	1870
Thrall, William A., Chicago, Ill. Railway-ticket	455,073	June 30	2990	761	55	1746
Threlkeld, William, New York, N. Y. Gas-pressure regulator	455,478	July 7	280	71, 72	56	57
Thring, Fredrick S., New York, N. Y. Wrench	455,133	June 30	3082	785	55	1764
Throop, John H., Evansville, Ind. Boat-lowering apparatus	459,822	Sept. 22	2029	509	56	1480
Throop, Montgomery H., Jr., Chicago, Ill. Sleeping-car	444,468	Jan. 13	764	199	54	160
Thropp, William R., Trenton, N. J. Hydrant	448,096	Mar. 10	1340	343	54	1381
Thum, Otto and W., Grand Rapids, Mich. Sticky fly-paper	466,199	Dec. 29	3517	900	57	1845
Thum, William. (See Thum, Otto and W.)						
Thümler, Hugo, Berlin, Germany. Photographic apparatus	458,699	Sept. 1	236	56	56	1110
Thurell, John, Zylonite, Mass. Steam-boiler furnace	458,042	Aug. 18	1829	476	56	894
Thurell, John, Zylonite, Mass. Furnace-grate	460,408	Sept. 29	2922	730	56	1657
Thürfelder, Hermann, assignor to W. Demuth & Co., New York, N. Y. Apparatus for molding articles of amber, &c	461,721	Oct. 20	1918	474	57	381
Thürfelder, Hermann, Hoboken, N. J., assignor to W. Demuth & Co., New York, N. Y. Apparatus for forming articles of amber, &c	461,722	Oct. 20	1919	474	57	381
Thurlow, Clarence E. (See Rand, William C., assignor.)						
Thurlow, Clarence E., Lewiston, Me. Grooving-machine	460,803	Oct. 6	420	104	57	83
Thurman, William H., Fish Camp, Cal. Connection for wagon-trains	449,980	Apr. 7	498	124	55	97
Thurmond Car Coupling Company. (See McKeen, Thomas L., assignor.)						
Thurstensen, Soren, Philadelphia, Pa., assignor of one-half to C. H. Emerson, Brooklyn, N. Y. Clamp for knitting-machines	456,710	July 28	2255	597	56	456
Thurston, Charles H., assignor to F. W. Thurston, Boston, Mass. Hat and coat hook	454,305	June 16	1681	440	55	1486
Thurston, Charles H., assignor to F. W. Thurston, Boston, Mass. Wire suspension-hook	454,891	June 30	2634	675	55	1677
Thurston, Frank W. (See Thurston, Charles H., assignor.)						
Thury, René, Geneva, Switzerland. Dynamo-electric machine	465,808	Dec. 22	2865	733	57	1711
Thyssen & Company. (See Thielmann, Wilhelm, assignor.)						
Tibbals, Wallace, Lytle, Ohio. Wire-tightener and loop-former	464,534	Dec. 8	816	201	57	1300
Tibbetts, Moses D., Highland, Ill. Machine for winding bandages	458,664	Sept. 1	493	121	56	1159
Tibbits, Austin M., Cortland, N. Y. Metal-bending machine	453,172	May 26	2828	709	55	1134
Tibbits, John B. (See Bottome, Turner D., assignor.)						
Tibbits, Samuel F., Biddeford, Me. Wood-working machine	455,538	July 7	384	98, 99	56	75
Tice, Arthur W., <i>et al.</i> (See Gilman, Willard H., assignor.)						
Tice, Philipp B., Longton, Kans. Cultivating-plow	465,297	Dec. 15	2054	524 525	57	1544
Tichenor, Edwin S., Ithaca, N. Y. Folding bedstead	461,138	Oct. 13	898	233	57	180
Tichenor, John B., Clyde, Ohio. Shaft attachment for vehicles	464,838	Dec. 8	1279	321	57	1388
Tidball, Walton C., Brooklyn, N. Y. Picture-hanger	445,305	Jan. 27	2118	548	54	438
Tideman, Henry von, and J. Cook, Detroit, Mich. Car-coupling	465,603	Dec. 22	2564	653	57	1651
Tiede, Emil L., Belmont, Iowa. Ribbon-clasp	458,289	Aug. 25	2231	546	56	977
Tieman, Edward, Chicago, Ill. Motor-car fender	459,425	Sept. 15	1397	349	56	1353
Tietenberg, Robert R., <i>et al.</i> (See Fitzpatrick and Ring, assignors.)						
Tietjen, George H., San Francisco, Cal. Stenciling-machine	452,624	May 19	1910	480	55	951
Tietjen, George H., assignor of one-half to G. H. Bahrs, San Francisco, Cal. Street or station indicator for cars	456,098	July 14	1253	330	56	247
Tiffany, Albert R., assignor of one-half to W. Young, Dayton, Ohio. Tag-wiring machine	444,403	Jan. 6	659	170 171	54	130
Tiffany, Eli, Bennington, Vt. Supporting-spring, &c., for straight-knitting machines	457,061	Aug. 4	206	50	56	572
Tiffany, George S., Tecumseh, Mich. Brick or tile table	444,227	Jan. 6	404	100	54	80
Tilden, Harry B. (See Johns, William E., assignor.)						
Tilden, James A., Hyde Park, Mass., assignor to Hersey Meter Company, Portland, Me. Fluid-meter	457,294	Aug. 4	582	153 154	56	641
Tilden, James A., Hyde Park, Mass., assignor to Hersey Meter Company, Portland, Me. Rotary fluid-meter	457,295	Aug. 4	583	154	56	641
Tilden, Winfield, Des Moines, Iowa. Shirt	454,674	June 23	2276	584	55	1602
Tilghman, Benjamin C. and R. A., Philadelphia, Pa. Manufacturing chilled-iron globules	446,986	Feb. 24	2416		54	1009
Tilghman, Benjamin C. and R. A., Philadelphia, Pa. Manufacturing chilled-iron globules	446,987	Feb. 24	2417		54	1010

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Tilghman, Benjamin C. and R. A., Philadelphia, Pa. Chilled-iron globeule	446,988	Feb. 24	2419	54	1010
Tilghman, Charles C., Baltimore, Md. Safety egg-crate	449,981	Apr. 7	499	124	55	97
Tilghman, Charles C., and J. N. Goldsborough, Carmichael, Md. Thill-coupling clip	455,843	July 14	890	234	56	179
Tilghman, Noah J., Palatka, Fla. Low-water alarm	459,919	Sept. 22	2187	549	56	1510
Tilghman, Richard A. (See Tilghman, Benjamin C. and R. A.)						
Tilley, Edwin F., Brooklyn, assignor to F. A. Hall, New York, N. Y. Folding metal cot or bedstead	452,737	May 19	2088	525	55	986
Tilley, William P., and C. E. Calvert, Portsmouth, Va. Egg-crate	448,281	Mar. 17	1667	422	54	1454
Tillinghast, Benjamin F., <i>et al.</i> (See Hollingworth, Louis, assignor.)						
Tillinghast, Pardon W., Providence, R. I. Bicycle	444,258	Jan. 6	443	111	54	87
Tillinghast, Pardon W., Providence, R. I. Bicycle	450,951	Apr. 21	2022	500	55	408
Tillinghast, Pardon W., Providence, R. I. Tire for vehicle-wheels	450,952	Apr. 21	2024	500	55	409
Tillison, Charles D., St. Louis, Mo. Smoke-conductor	453,379	June 2	305	80	55	1205
Tillson, Jesse P., Union City, Ohio. Railway-coach	462,517	Nov. 3	463	113	57	639
Tilton Manufacturing Company. (See Kidder, Wellington P., assignor.)						
Tilton, Rufus A., <i>et al.</i> (See Whitehouse, Alonzo E., assignor.)						
Timby, Theodore R., Washington, D. C. Purifying iron and steel	462,602	Nov. 3	600	148	57	666
Timby, Theodore R., assignor to National Heating and Ventilating Company, Washington, D. C. Apparatus for heating, cooling, and ventilating	465,298	Dec. 15	2056	525	57	1544
Time Electric Company. (See Hale, Charles A., assignor.)						
Timken, Henry, San Diego, Cal. Vehicle-spring	449,717	Apr. 7	112	29	55	24
Timm, Charles, Morgan Park, assignor to Union Special Sewing Machine Company, Chicago, Ill. Trimming attachment for sewing-machines	452,556	May 19	1805	454	55	930
Timmerman, Jason D., Spring Lake, N. Y. Bag-holder	461,291	Oct. 13	1155	294	57	231
Timmis, Illius A. (See Laurent-Cely and Timmis.)						
Timmis, Illius A., <i>et al.</i> (See Holden, James, assignor.)						
Timmons, Charles A., West Hallowell, Ill. Extension vehicle-seat	455,933	July 14	1019	266	56	203
Timms Automatic Car Coupler Company. (See Timms, James, assignor.)						
Timms, James, assignor to Timms Automatic Car Coupler Company, Columbus, Ohio. Car-coupling	450,539	Apr. 14	1344	331	55	265
Timms, James, assignor to Buckeye Car Coupler Company, Columbus, Ohio. Car-coupling	463,357	Nov. 17	1814	474	57	918
Timms, James, assignor to Buckeye Car Coupler Company, Columbus, Ohio. Operating device for car-couplings	463,358	Nov. 17	1815	474	57	918
Tincher, James W., assignor to one-half to C. T. Evans, Xenia, Ill. Rag-cutting machine	450,511	June 2	307	80, 81	55	1205
Tindell, Henry, Harrison, N. J. Automatic weighing device for carding-machines	457,570	Aug. 11	1062	271	56	740
Tingle, Chester S., Hortonville, Ind. Weather-strip	445,459	Jan. 27	2342	609	54	483
Tingne, Edward W. (See Farrar, Rufus A., assignor.)						
Tinker, Julien E. (See Benjamin, Tinker, and Rosenberger.)						
Tinker, Julien E., and G. T. Benjamin, Chattanooga, Tenn., assignors of one-third to E. Blodgett, Charleston, S. C. Barrel	456,099	July 14	1256	331	56	247
Tinkham, George F., Burlington, Iowa. Smoke-consuming furnace	460,189	Sept. 29	2587	645	56	1593
Tinkham, Lemuel B., Boston, Mass. Electric bell-pull	450,706	Apr. 21	1648	396	55	337
Tinning, Frank T. and W. K. S., assignors of one-fifth to C. W. Irwin, Toronto, Canada. Holder for telephone-receivers	453,433	June 2	412	107	55	1224
Tinning, William K. S. (See Tinning, Frank T. and W. K. S.)						
Tinsley, George W., Columbus, Ind. Hose-coupling	448,693	Mar. 24	2330	584	54	1587
Tinsley, George W., Columbus, Ind. Hose-coupling for street-washers	448,694	Mar. 24	2331	584	54	1588
Tinsley, George W., Columbus, Ind. Hose-coupling for street-washers	449,838	Apr. 7	301	78	55	59
Tinsley, Thomas R. (See Hale and Tinsley.)						
Tiusman, Samuel H., Morris, Ill. Draft-equalizer	454,892	June 30	2635	676	55	1677
Tippy, Oren, New Carlisle, Ind. Carpet-stretcher	462,781	Nov. 10	886	232	57	730
Tipton, George P., Hot Springs, Ark. Shoe-blackening	449,339	Mar. 31	3364	54	1789	
Tipton, Thomas L., Jerusalem, Ohio. Horseshoe	445,481	Jan. 27	2375	618	54	489
Tipton, William R., Lebanon, Ill. Butter-case	459,464	Sept. 15	1450	365	56	1363
Tiquet, François, Paris, France. Method of and machine for printing in colors	457,942	Aug. 18	1675	438	56	865
Tirrell, Charles W. (See Hermann, Christian, assignor.)						
Tirrell, Jacob P., Boston, Mass., assignor to H. A. Pinkham, Philadelphia, Pa. Automatic cut-out	446,902	Feb. 24	2291	570	54	986
Tirrell, Jacob P., Boston, assignor of one-half to J. F. Emerson, Wakefield, Mass. Cash register and indicator	452,986	May 26	2496	632	55	1073
Tirrill, Harvey, Pittsburg, N. H. Clothes-pin	444,603	Jan. 13	975	252	54	202
Tisch, Louis. (See Frelleloehr and Tisch.)						
Tischendoerfer, Friedrich, Brooklyn, N. Y. Regulator for dynamo-electric machines	451,312	Apr. 28	2607	643	55	530
Tisdell, Abner G., Brooklyn, N. Y. Photographic-camera shutter	464,260	Dec. 1	403	96	57	1210
Tise, Charles H. (See Reich, Isaac, assignor.)						
Titus, Abraham H., Darnall, Nebr. Pump	448,282	Mar. 17	1669	423	54	1454
Titus, Charles M. (See Clinton and McNamara, assignors.)						
Titus, Edward S., and F. W. Werner, Hempstead, N. Y. Feed-water purifier	447,018	Feb. 24	2470	615	54	1019
Titus, Herbert B., <i>et al.</i> (See Stoner, John B., assignor.)						
Titus, Ivor R., assignor to himself, E. Ensign, Huntington, W. Va., and F. E. Canda, New York, N. Y. Grinding-machine	465,737	Dec. 22	2754	703	57	1689
Titus, James H. (See Brown, Eugene L., assignor.)						
Titus, John C., assignor of one-half to New Bremen Machine Company, New Bremen, Ohio. Brick or tile machine	450,201	Apr. 14	817	205	55	165
Titus, Jonah E., Orange, Mass. Extensible bracket for electric lamps	446,037	Feb. 10	864	210	54	688
Titus, William, North Hempstead, N. Y. Banjo	447,985	Mar. 10	1180	299	54	1348
Tobe, Frederick E. (See Blondell, John M., assignor.)						
Tobey, Charles W., assignor to Burt & Tobey, New Bedford, Mass. Apparatus for attaching adhesive stamps	447,212	Feb. 24	2816	697 698 699 700	54	1384
Tobey, Enoch G., Tarrytown, N. Y. Railway and vehicle for railway transportation	454,306	June 16	1683	440	55	1486
Tobey, Enoch G., Tarrytown, N. Y. Railway and vehicle for railway transportation	454,307	June 16	1685	441	55	1486
Tobey, Frederick W. (See Atwood and Tobey.)						
Tobey, Henry A., Toledo, Ohio. Steam-trap	451,533	May 5	132	32, 33	55	604
Tobin, Edward J. (See Siddall, Archibald, assignor.)						
Tobin, Henry P., and M. Holman, Allendale, S. C. Cotton-chopper	463,012	Nov. 10	1251	325	57	803
Tobin, Martin M., <i>et al.</i> (See Collett, Herbert E., assignor.)						
Tocin, Joseph, Buffalo, N. Y. Stove-pipe	461,058	Oct. 13	795	203	57	160
Todd Cotton Harvester Company. (See Todd, George N., assignor.)						
Todd, Edmund N., Newark, N. J., assignor to Celluloid Manufacturing Company, of New York. Varnish	450,264	Apr. 14	927	55	185

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Todd, George N., Chicago, Ill. Cotton-harvester.....	457,329	Aug. 4	648	{ 169 170 }	56	653
Todd, George N., Chicago, Ill., assignor to Todd Cotton Harvester Company, of Illinois. Cotton-harvester.....	453,351	June 2	268	71, 72	55	1198
Todd, George N., New York, N. Y., assignor to Todd Cotton Harvester Company, of Illinois. Picker-stem for cotton-harvesters and mechanism for operating the same.....	456,173	July 21	1369	364	56	279
Todd, Henry B., Meriden, Conn. Metal-cutter.....	447,849	Mar. 10	948	237	54	1304
Todd, Ira G., Bridgeport, Conn. Type-writing machine.....	466,025	Dec. 29	3256	830	57	1794
Todd, Marquis J., Corning, assignor to Pitts Agricultural Works, Buffalo, N. Y. Har-row.....	445,842	Feb. 3	546	133	54	618
Todd, Marquis J., Corning, assignor to Pitts Agricultural Works, Buffalo, N. Y. Har-row.....	446,105	Feb. 10	968	238	54	707
Todd, Richard, Manchester, England. Sewing-machine.....	458,434	Aug. 25	2465	{ 600 601 }	56	1021
Todd, William A., San Francisco, Cal. Banjo.....	445,385	Jan. 27	2233	578	54	461
Tolbert, Martin L., Fort Shaw, Mont. Shears.....	450,877	Apr. 21	1918	471	55	368
Toledo Metal Wheel Company. (See Newhouse, Frederick, assignor.)						
Toler, John, Newark, N. J. Caster.....	448,306	Mar. 17	1708	433	54	1462
Toliver, George, Philadelphia, Pa. Propeller for vessels.....	451,086	Apr. 28	2228	551	55	457
Tollefson, Jefferson, St. Ansgar, Iowa. Pocket-knife.....	464,681	Dec. 8	1037	200	57	1342
Tolner, Charles, Pulaski, N. Y. Spool-cabinet and the like.....	463,847	Nov. 24	2587	674	57	1076
Tolman & Co., C. S. (See Hudson, Charles E., assignor.)						
Tolman, Thomas J., Hanover, Mass. Turbine.....	465,503	Dec. 22	2394	612	57	1619
Tomblin, Lee E. (See Tomblin, Marion N. and L. E.)						
Tomblin, Marion N. and L. E., Des Moines, Iowa. Attachment for printing-presses.....	452,491	May 19	1703	428	55	911
Tomec, Anton. (See Tesa, John F., assignor.)						
Tomlinson, William, assignor of one-half to G. S. Graves, Buffalo, N. Y. Furnace.....	458,295	Aug. 25	2240	548	56	979
Tomkins, Alfred S., Worthing, England. Slow-combustion stove.....	452,532	May 19	1767	445	55	923
Tomkins, Calvin, New York, N. Y. Manufacturing cement.....	465,330	Dec. 15	2107		57	1554
Tomkins, James. (See Larkin and Tomkins.)						
Tomlinson, Charles and C. E., Syracuse, N. Y. Gun-tool.....	450,323	Apr. 14	1022	252	55	203
Tomlinson, Charles E. (See Tomlinson, Charles and C. E.)						
Tomlinson, Charles E., Rochester, N. Y., assignor to F. B. Kendrick and F. L. Barney. Cleaning attachment for type-writing machines.....	464,221	Dec. 1	339	82	57	1197
Tomlinson, James H., et al. (See Robinson and Stephenson, assignors.)						
Tommasi, Donato, Paris, France. Electric lamp.....	459,872	Sept. 22	2108	530	56	1496
Tommasi, Donato, Paris, and C. Thery, Marseilles, France. Secondary battery.....	451,091	June 16	1372	357	55	1425
Tommins, Vincent P., New York, N. Y. Dish-cover.....	449,144	Mar. 31	3029	766	54	1730
Tompkins, Andrew T., New York, N. Y. Device for retaining neckties.....	450,699	Apr. 21	1638	393	55	335
Tompkins, Gilbert, San Leandro, Cal. Foot-rasp for horses.....	450,436	Apr. 14	1207	294	55	236
Tompkins, Gilbert, San Leandro, Cal. Adjustable shoe-weight for horses.....	457,235	Aug. 4	473	124	56	622
Tompkins, Ira, Troy, N. Y. Baby-carriage.....	465,546	Dec. 22	2475	631	57	1635
Tompkins, Jerome P. (See Holmes and Tompkins.)						
Tompkins, John D., Nassau, N. Y. Making paper-stock.....	458,135	Aug. 18	1962	509	56	921
Tompkins, Stonewall, Knoxville, Tenn., assignor of one-half to C. E. Vawter, Crozet, Va. Electric railway-signal.....	449,639	Mar. 31	3865	968	54	1884
Tondeur, Cleon, Canastota, N. Y. Berry-box.....	447,799	Mar. 10	871	216	54	1289
Tonkin, John J., assignor to T. Kingsford, Oswego, N. Y. Steam-boiler.....	448,867	Mar. 24	2613	656	54	1640
Tonnar, Felix, Dülken, Germany. Shedding mechanism for looms.....	445,098	Jan. 20	1801	{ 464 465 }	54	367
Tonnar, Felix, Dülken, Germany. Manufacturing double-faced plush fabrics.....	451,743	May 5	464	{ 113 114 }	55	666
Tonns, Louis N., Brighton, assignor of two-thirds to E. H. Hall, Brooklyn, and G. H. Allen, New York, N. Y. Steam-generator.....	452,502	May 19	1720	433	55	914
Toof, Edwin J., New Haven, Conn. Attachment-holder for sewing-machines.....	444,542	Jan. 13	884	229	54	184
Toof, Edwin J., New Haven, Conn. Presser-foot for sewing-machines.....	445,912	Feb. 3	648	159	54	639
Toof, Edwin J., New Haven, Conn. Button-hole cutter.....	446,424	Feb. 17	1617	396	54	846
Toof, Edwin J., New Haven, Conn. Tuck-marker for sewing-machines.....	448,695	Mar. 24	2331	585	54	1588
Toof, Edwin J., New Haven, Conn. Ruffling attachment for sewing-machines.....	450,647	Apr. 21	1561	375	55	321
Toof, Edwin J., New Haven, Conn. Ruffling attachment for sewing-machines.....	450,648	Apr. 21	1563	375	55	321
Toof, Edwin J., New Haven, Conn. Ruffling attachment for sewing-machines.....	450,649	Apr. 21	1564	375	55	321
Toof, John H., Concord, N. H. Smoothing-iron.....	447,049	Feb. 24	2531	628	54	1030
Toohy, John. (See Gill, Clark L., assignor.)						
Tooker, George W., New York, N. Y. Artificial ivory.....	452,869	May 26	2294		55	1034
Toomey, Laurence W., Chicopee, Mass. Valve.....	459,797	Sept. 22	1985	499	56	1471
Topham, Richard, Chicago, Ill. Trunk-slat.....	444,736	Jan. 13	1190	308	54	241
Topi, Ettore, assignor of three-fourths to A. N. Thompson and A. M. Hewitt, Denver, Colo. Hardening and coloring alabaster tiles.....	452,295	May 12	1365	340	55	840
Toplift, Isaac N., Cleveland, Ohio. Carriage-how.....	446,938	Feb. 24	2345	583	54	995
Topp, Lena A., Syracuse, N. Y. Garment-supporter.....	461,650	Oct. 20	1804	444	57	359
Topp, Leroy R., Louisville, Ky. Lining for grain-spouts.....	460,489	Sept. 29	3042	762	56	1680
Torkelson, Reinhard T., Hatfield, Mass. Breech-loading gun.....	452,126	May 12	1103	281	55	790
Torkelson, Reinhard T., Hatfield, assignor to J. C. Speirs, Worcester, Mass. Wrench.....	459,218	Sept. 8	1059	257	56	1278
Torrance, Francis J. (See Grant, Oscar F., assignor.)						
Torrance, James W. (See Emerson, George, assignor.)						
Torrey, Francis B., Bath, Me. Bearing.....	460,409	Sept. 29	2923	730	56	1657
Torrey, Francis B., Bath, Me. Lubricant.....	460,410	Sept. 29	2925	731	56	1658
Torrey, Joseph R., Worcester, Mass. Razor-strop.....	447,213	Feb. 24	2824	700	54	1086
Torrey, William H., Adams, Mass. Means for adjusting and stretching card-clothing.....	455,672	July 7	601	158	56	117
Tory, William, Guysborough, Canada. Hoof-spreading horseshoe.....	448,736	Mar. 24	2409	602	54	1602
Tothman, James, New Haven, Conn. Flushing-tank.....	446,903	Feb. 24	2294	571	54	966
Tothman, James E., and M. Erickson, La Crosse, Wis. Lubricating device.....	461,002	Oct. 13	714	184	57	146
Totty, William, and J. E. Chaffin, Grapeland, Tex. Cotton-spacer.....	462,747	Nov. 10	829	218	57	720
Toucey, Norris D., assignor of three-fourths to F. Dunham and F. C. Johnson, Minneapolis, Minn. Steam-engine valve.....	456,174	July 21	1373	365	56	280
Touchstone, James N., Ida, Tex. Quilting frame for sewing-machines.....	447,169	Feb. 24	2747	680	54	1070
Touhy, Daniel, Crenshaw, Pa. Car-coupling.....	458,080	Aug. 18	1879	489	56	905
Tourné, Eugène J., assignor of seven-eighths to T. H. Handy, New Orleans, La. Suspend-ers.....	453,796	June 9	975	254	55	1341
Tousley, Miron G., assignor to A. Patrick, Englewood, Ill. Ventilator.....	446,824	Feb. 17	2133	530	54	949
Tovey, Alfred E. J., et al. (See Valentin, Basil W., assignor.)						
Tower, Beauchamp, Westminster, England. Apparatus for maintaining a constant plane in floating vessels.....	464,806	Dec. 8	1239	{ 309 310 }	57	1380
Tower, Caleb E., South Bend, Ind. Sulky-plow.....	462,285	Nov. 3	103	25	57	570

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Tower, Clinton A., Cleveland, Ohio. Double-acting engine.....	444,259	Jan. 6	444	112	54	87
Tower, Herman C., <i>et al.</i> (See Whittaker, George E., assignor.)						
Tower, John J. (See Green, Henry, assignor.)						
Tower, John N., <i>et al.</i> (See Whittaker, George E., assignor.)						
Tower, Levi L., Somerville, Mass. Binding-strap.....	446,110	Feb. 10	981	241	54	710
Towor, Oscar, Wilson, N. Y. Harrow.....	455,497	July 7	310	79	56	63
Towle, George C., Hyde Park, Mass., assignor to Pope Manufacturing Company, Portland, Me. Type-writing machine.....	465,200	Dec. 29	3518	{ 900 901 928 929 }	57	1845
Towle, George C., Hyde Park, Mass., assignor to Pope Manufacturing Company, Portland, Me. Type-writing machine.....	466,270	Dec. 29	3629	{ 928 929 }	57	1866
Towne, Arthur G. (See Brown, William A., assignor.)						
Towne, Charles D., Galesburg, Mich. Harvester-reel.....	447,481	Mar. 3	358	89	54	1185
Towne, Lauriston, Providence, R. I. Ornamental chain-bar.....	454,629	June 23	2212	569	55	1590
Townley, Thomas P., Lawrenceville, Ga. Seed-cotton cleaner.....	460,669	Oct. 6	216	55	57	45
Townsend, Frederick E. and S. Luton, England. Oil-lamp.....	456,642	July 28	2143	567	56	434
Townsend, George, Greenville Centre, N. Y. Broom-holder.....	449,982	Apr. 7	500	125	55	97
Townsend, George H., Chicago, Ill. Knife, scissors, or shears sharpener.....	458,243	Aug. 25	2145	525	56	962
Townsend, Harry S., and G. A. Schneebeli, Nazareth, Pa. Stop-motion for circular-knitting machines.....	451,628	May 5	283	68, 69	55	632
Townsend, Henry C., New York, N. Y. Magnetic separation.....	453,317	June 2	213	57	55	1188
Townsend, Samuel. (See Townsend, Frederick and S.)						
Townsend, Stephen J., Sumterville, Fla. Level.....	446,038	Feb. 10	865	210	54	688
Townsend, William, London, England, assignor to I. B. Kleinert, New York, N. Y. Bus-tle.....	457,172	Aug. 4	368	94	56	603
Townsin, William H., San José, Cal. Dressing for carriage-tops.....	464,905	Dec. 8	1375	.....	57	1407
Townsley, Christopher C., Johnson City, Tex. Corn-sheller.....	453,270	June 2	142	40	55	1175
Townsley, James L., assignor to Kenwood Manufacturing Company, Chicago, Ill. Cash-register and indicator.....	452,402	May 19	1554	{ 386 387 }	55	885
Towry, William J., and G. A. Pickup, Shelbyville, Tenn. Hand-stamp.....	457,432	Aug. 11	843	218	56	698
Toye, Benjamin B., Toronto, Canada. Telegraphy.....	454,330	June 23	2212	570	55	1590
Tracy, Doria, Toledo, Ohio. Heating and radiating fire-place.....	462,748	Nov. 10	830	218	57	720
Tracy, Erwin J., Sioux Falls, S. D. Folding rack.....	459,847	Sept. 22	2063	{ 518 519 }	56	1487
Tracy, James B. (See Chase and Tracy.)						
Tracy, Lewis W., assignor of one-half to J. E. Grannis, New York, N. Y. Machine for covering electrical conductors with lead.....	451,960	May 12	797	{ 201 202 }	55	737
Tracy, Milton S., Rocky Hill, Conn., assignor to F. W. Drosten, St. Louis, Mo. Roll-paper holder and cutter.....	451,685	May 5	373	91, 92	55	650
Tracy, Patrick J., Racine, Wis. Heating-drum.....	444,078	Jan. 6	155	39	54	34
Tracy, Washington J., New Orleans, La. Switch.....	451,214	Apr. 28	2449	605	55	498
Trainer, J. B. H., <i>et al.</i> (See Campbell, George L., assignor.)						
Transcontinental Car Lock and Seal Company. (See Davis, Charles E., assignor.) (Reissue.)						
Trask, Wilber C., assignor of one-half to Chickasaw Saddlery Company, Memphis, Tenn. Loop-riveting attachment.....	462,603	Nov. 3	600	148	57	667
Trauger, George W., Lambertville, N. J. Envelope.....	465,768	Dec. 22	2835	726	57	1705
Traut & Hine Manufacturing Company. (See Pilkington, George B., assignor.)						
Traut & Hine Manufacturing Company. (See Richards, Francis H., assignor.)						
Traut, Justus A., New Britain, Conn. Trousers stretcher and hanger.....	445,099	Jan. 20	1803	465	54	367
Traut, Justus A., New Britain, Conn. Suspender-buckle.....	446,543	Feb. 17	1707	419	54	864
Traut, Justus A., New Britain, Conn. Suspender-buckle.....	446,721	Feb. 17	1978	493	54	916
Traut, Justus A., New Britain, Conn. Suspender-buckle.....	446,722	Feb. 17	1979	493	54	916
Traut, Justus A., New Britain, Conn. Suspender-buckle.....	447,924	Mar. 10	1074	269	54	1328
Traut, Justus A., New Britain, Conn. Making suspender-buckles.....	452,880	May 26	2319	585	55	1038
Traut, Justus A., assignor to Stanley Rule and Level Company, New Britain, Conn. Spirit-level.....	453,452	June 2	442	114	55	1232
Traut, Justus A., and C. E. Riecker, New Britain, Conn.; said Riecker assignor to said Traut. Bag-holding apparatus.....	448,791	Mar. 24	2190	623	54	1618
Trautmann, John F., St. Louis, Mo. Horse-collar.....	447,649	Mar. 3	610	150	54	1233
Trautwein, Ferdinand P., Lutesville, Mo. Flour bolt and dresser.....	448,283	Mar. 17	1669	423	54	1454
Trautwein, Ferdinand P., Lutesville, Mo. Bolting-reel.....	452,812	May 26	2209	554	55	1019
Traveller's Pocket Fire Escape Company. (See Athey, Isaac H., assignor.)						
Traver, Theodore H., Chicago, Ill. Button-setting machine.....	448,696	Mar. 24	2332	{ 585 586 }	54	1588
Travers, James B., Winchester, Ill. Baking-pan.....	448,559	Mar. 17	2092	525	54	1535
Travis, Albertus, Gloversville, N. Y. Machine for coloring skins.....	456,605	July 28	2078	{ 549 550 }	56	421
Travis, Carter & Co. (See Elliott, John W., assignor.)						
Travis, Edward J., Paris, Tenn. Cultivator and harrow.....	453,027	May 26	2559	647	55	1085
Traylor Electric Company. (See Traylor, Robert W., assignor.)						
Traylor, Robert W., assignor to Traylor Electric Company, Richmond, Va. Electric motor.....	447,704	Mar. 3	683	170	54	1247
Trayvon, Benoit. (See Sainte-Marie, Robert de, assignor.)						
Treadwell, Charles. (See Milbradt, Gustave A., assignor.)						
Treadwell, George H. (See Anable, Henry B., assignor.)						
Treasure, Edwin, St. Paul, Minn. Box-lifter.....	460,686	Oct. 6	251	62	57	50
Treat, Francis H. (See Pettigrew, Smith, and Treat.)						
Treat, Francis H. (See Smith, Treat, and Pettigrew.)						
Treat, Francis H., assignor to Illinois Steel Company, Chicago, Ill. Billet-conveyer.....	445,290	Jan. 27	2099	{ 542 543 544 545 }	54	433
Treat, Francis H., assignor to Illinois Steel Company, Chicago, Ill. Apparatus for stamping billets.....	445,291	Jan. 27	2100	{ 543 544 545 }	54	434
Treat, Francis H., assignor to Illinois Steel Company, Chicago, Ill. Billet-conveyer.....	445,292	Jan. 27	2102	544	54	434
Treat, Francis H., assignor to Illinois Steel Company, Chicago, Ill. Billet-receiving table.....	445,293	Jan. 27	2103	{ 544 545 }	54	434
Treat, Francis H., assignor to Illinois Steel Company, Chicago, Ill. Billet-shears.....	445,294	Jan. 27	2104	545	54	435
Treat, Francis H., H. S. Smith, Chicago, and C. Pettigrew, Joliet, assignors to Illinois Steel Company, Chicago, Ill. Combined shears and conveyer for billets.....	455,074	June 30	2991	761	55	1747
Trebert, Henry L. F., Rochester, N. Y. Speed mechanism for bicycles.....	462,782	Nov. 10	886	233	57	731
Treblcock, William, Central City, Colo. Skylight lifter and lock.....	455,134	June 30	3084	785	55	1764
Treacy, Lawrence J. (See Murnane and Treacy.)						
Tredegar Company. (See Brown, George A., assignor.)						
Tredegar Company. (See Johnson, John W. R., assignor.)						
Tredick, Edward. (See Nye, George E., assignor.)						
Tredwell, Walter E., and C. W. Black, Anthony, Kans. Corn-harvester.....	448,697	Mar. 24	2337	586	54	1589

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Treen, William E., Boston, Mass. Tool for grasping wire.....	457,858	Aug. 18	1524	396	56	837
Tregoning, John, assignor of one-half to J. T. Lennox, Lynn, Mass. Valve-operating mechanism.....	462,805	Nov. 10	928	242	57	740
Tregurtha, Alfred T., Everett, Mass. Sectional steam-boiler.....	458,923	Sept. 1	586	{ 142 143 }	56	1178
Tregurtha, Alfred T., Everett, assignor of one-half to J. A. Murray, Boston, Mass. Switch for incandescent-lamp sockets.....	448,167	Mar. 10	1445	369	54	1402
Tregurtha, Alfred T., Everett, assignor of one-half to H. A. Clark, Boston, Mass. Cut-out.....	449,767	Apr. 7	190	47, 48	55	39
Tregurtha, Alfred T., Everett, assignor of one-half to H. A. Clark, Boston, Mass. Electric cut-out.....	449,921	Apr. 7	414	104	55	81
Tregurtha, James, Malden, assignor to H. A. Clark and T. A. Johnson, Boston, Mass. Braiding-machine.....	447,262	Feb. 24	2901	{ 721 722 723 }	54	1102
Tregurtha, John, <i>et al.</i> (See Pinch, Frank, assignor.).....						
Tremain, Charles W., Portland, Oreg. Steam-engine.....	465,769	Dec. 22	2809	720	57	1669
Tremper, Frank E., San Francisco, Cal. Speeding and reversing gear.....	465,570	Dec. 22	2509	640	57	1641
Tremper, Frank E., and J. W. Eisenhuth; said Eisenhuth assignor to Electric Vapor Engine Company, San Francisco, Cal. Electric pole in gas or vapor explosive engines.....	454,238	June 16	1582	416	55	1466
Trenary, Eneas A. (See Davis, Wells R., assignor.).....						
Trenchard, Richard. (See Kincaid and Crickler, assignors.).....						
Trendley, John, St. Louis, Mo., assignor of two-thirds to J. W. Schorr and C. Noll. Car-brake.....	464,596	Dec. 8	901	221	57	1317
Trenholme, Charles W., assignor of two-thirds to M. M. Vaughan, Montreal, Canada, and A. A. Parker, Poughkeepsie, N. Y. Cot.....	461,691	Oct. 20	1866	462	57	371
Trent, Lottie W., Denver, Colo. Remedial cosmetic.....	444,411	Jan. 6	674		54	133
Trescott, Willis A., Fairport, N. Y. Fruit-packer.....	444,260	Jan. 6	447	{ 112 113 }	54	88
Trevor, William W., Lockport, N. Y. Machine for splitting wood.....	451,228	Apr. 28	2475	611	55	502
Trew, Thomas J., Macon City, Mo. Dish-washer.....	465,070	Dec. 15	1673	426	57	1473
Tribe, Thomas, Colorado Springs, Colo. Curtain-holder.....	444,863	Jan. 20	1427	371	54	295
Tribuzio, Catello, Turin, Italy. Magazine-pistol.....	461,968	Oct. 27	2321	576	57	467
Trickel, Joseph, Reading, Pa. Door-knob.....	448,737	Mar. 24	2410	603	51	1602
Trimble, Thomas. (See Adams, Chauncey K., assignor.).....						
Trimble, William, Tremont, Ill. Wire fence.....	460,411	Sept. 29	2926	731	56	1658
Triple Wire Nail Machine Company. (See Cole and Hastings, assignors.).....						
Tripp, Albert H., Rago, Kans. Cultivator.....	444,800	Jan. 13	1280	331	54	258
Tripp, Caleb B., and G. W. Venters, Calico, N. C. Cultivator.....	459,823	Sept. 22	2031	509	56	1481
Tripp, George E., Stonington, Conn. Sully.....	445,758	Feb. 3	401	102	54	592
Tripp Giant Leveller Company. (See Cogswell, George H., assignor.).....						
Tripp Giant Leveller Company. (See Purdy, Oscar K., assignor.).....						
Tripp, James, New York, N. Y. Feeding mechanism for sewing-machines.....	460,294	Sept. 29	2754	686	56	1626
Tripp, James, New York, N. Y. Sewing-machine.....	460,295	Sept. 29	2754	{ 686 687 }	56	1626
Tripp, James, New York, N. Y. Sewing-machine.....	460,454	Sept. 29	2882	746	56	1669
Tripp, Thomas, Avon, Mass. Car-brake.....	450,761	Apr. 21	1717	{ 415 416 }	55	351
Tripp, Thomas, Avon, Mass. Car-brake.....	450,762	Apr. 21	1719	{ 417 418 }	55	351
Tripp, Thomas, Avon, Mass. Electric car-truck.....	457,802	Aug. 18	1431	371	56	819
Tripp, Thomas, Avon, Mass. Balanced valve.....	457,884	Aug. 18	1571	{ 408 409 }	56	845
Tripp, Thomas A., New Bedford, Mass. Snarling-machine.....	459,602	Sept. 15	1676	419	56	1406
Tritz, Joseph, Burlington, Iowa. Rocking meat-cutter.....	449,451	Mar. 31	3563	898	54	1827
Triumph Compound Engine Company. (See Eickershoff, John H., assignor.).....						
Trix, John, assignor to American Injector Company, Detroit, Mich. Injector.....	450,202	Apr. 14	819	206	55	165
Troast, William F., and S. R. Slaymaker, assignors to Slaymaker, Barry & Co., Lancaster, Pa. Padlock.....	465,897	Dec. 29	3026	774	57	1751
Troeger, Adam J., and F. M. L. Schneider, Luthersville, Ark. Hand-sawing machine.....	454,308	June 16	1698	441	55	1487
Trolley, Isaac. (See Hornsby, Innocent, Trolley, and Smith.).....						
Tromanhauser, Edwin H., Minneapolis, Minn. Shingle planing and sizing machine.....	465,005	Dec. 15	1570	{ 399 400 }	57	1455
Trombly, George, and J. J. Kinsman, Tampa, Fla. Carriage-gear.....	464,050	Dec. 1	62	17, 18	57	1149
Trost, Caroline R. (See Trost, Henry, assignor.).....						
Trost, Henry, assignor to C. R. Trost, Cohoes, N. Y. Polishing-machine.....	449,059	Mar. 24	2892	734	54	1695
Trotman, Moses, Detroit, Mich. Wheel-plow.....	457,625	Aug. 11	1145	{ 292 293 }	56	755
Trott, Charles H., Chicago, Ill. Dress-skirt gage.....	450,265	Apr. 14	928	230	55	185
Trotter, Harry L., Rochester, N. Y. Refrigerator.....	457,962	Aug. 18	1705	446	56	871
Trouard, Alcide F., assignor of one-half to S. Blum, New Orleans, La. Folding chicken-coop.....	465,438	Dec. 15	2224	586	57	1589
Trout, James C., Morrilton, Ark. Mole-trap.....	447,417	Mar. 3	237	60	54	1162
Trout, William H. (See Reynolds, Shaw, and Trout.).....						
Trowbridge, Frank, Fond du Lac, Wis. Boiler-cleaner.....	459,798	Sept. 22	1987	500	56	1471
Trowbridge, Frank, assignor of one-half to C. E. Dickinson, Fond du Lac, Wis. Steam-boiler furnace.....	451,961	May 12	798	202	55	737
Trowbridge, Theodore M. (See Gilbert, De Witt C., assignor.).....						
Troxler, Barney C., assignor of one-half to A. G. Wilson, Greensborough, N. C. Plow.....	445,913	Feb. 3	649	159	54	639
Troxler, Gustavus, Jr., assignor of one-half to I. L. Silverberg, Newark, N. J. Fastener for securing the ends of lacing-cords on shoes, &c.....	459,160	Sept. 8	968	235	56	1261
Troy, Robertus F., Madison, Wis. Electric door-operating device.....	461,122	Oct. 13	877	{ 226 227 228 }	57	176
Truax, Charles H., Chicago, Ill. Surgical instrument.....	450,266	Apr. 14	929	230	55	185
Truax, Charles H., Chicago, Ill. Surgical pump.....	459,053	Sept. 8	797	192	56	1228
Truax, Charles H., Chicago, Ill. Surgical pump.....	459,054	Sept. 8	799	193	56	1228
Truax, Charles H., Chicago, Ill. Surgical pump.....	459,055	Sept. 8	800	193	56	1228
Truax, Charles H., Chicago, Ill. Surgeon's knife.....	459,056	Sept. 8	801	{ 193 194 }	56	1228
Truax, Charles H., Chicago, Ill. Opera-glass attachment.....	459,242	Sept. 8	1091	266	56	1294
Trudeau, George F. (See Shoup and Trudeau.).....						
True, Richard S., assignor to T. E. True, Syracuse, N. Y. Bicycle-saddle.....	455,027	June 30	2998	737	55	1728
True, Thankful E. (See True, Richard S., assignor.).....						
Trueman, William, Brooklyn, assignor to E. & H. T. Anthony & Company, New York, N. Y. Magazine photographic camera.....	462,459	Nov. 3	381	94	57	623

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Truesdell, Eugene E. P. (See Swain, Calvin L. and G. F., assignors.)						
Truesdell, Eugene E. P., <i>et al.</i> (See Haskins, Morris R., assignor.)						
Truesdell, George, assignor of five-eighths to H. L. Cranford and W. C. McIntire, Washington, D. C. Construction of railways	450,984	Apr. 21	2081	514	55	420
Truman, Edgar H., Wilmington, Del. Toy	463,468	Nov. 17	1988	520	57	953
Truman, Hooker & Co. (See Oliver, Doctor F., assignor.)						
Truman, John A., (and View, Mo. Staple-puller	450,922	Apr. 21	1975	484	55	399
Trumble, Chauncey B., Groton, N. Y. Animal-trap	465,418	Dec. 15	2252	578	57	1582
Trumbore, Samuel, Easton, Pa. Wagon-spring brace	444,469	Jan. 13	766	199	54	160
Trumbull, William, New Haven, Conn. Puzzle	465,147	Dec. 15	1821	461	57	1499
Trump, Fuller, Springfield, Ohio. Water-wheel	447,850	Mar. 10	949	238	54	1305
Trump, Fuller, Springfield, Ohio. Water-wheel	452,813	May 26	2210	554 555	55	1019
Trumpy, Solomon, Ramona, S. D. Wire-reel	459,186	Sept. 8	1008	246	56	1268
Truscott, Arthur, Columbia, Tenn. Lead-pencil	455,422	July 7	202	52	56	42
Truscott, Edward E., Grand Rapids, Mich. Foot-rest for row-boats	457,236	Aug. 4	475	125	56	632
Truss, Thomas S. (See Marsh and Truss.)						
Trusty, Joseph, Fort Dodge, Iowa. Wheel	450,540	Apr. 14	1346	331	55	265
Tryon, James M., <i>et al.</i> (See Brown, James W., assignor.)						
Tschantz, Abraham J., Orrville, Ohio. Oil-can	451,229	Apr. 28	2476	611	55	503
Tschinkel, Alfred, Hoboken, N. J. Method of and apparatus for engraving hollow glass-ware	460,670	Oct. 6	217	55	57	45
Tubbs, Reese M., Shickshinny, Pa. Fountain or stylographic pen	466,201	Dec. 29	3523	901	57	1846
Tabular Lock Syndicate. (See Biggs, Frederick J., assignor.)						
Tach, Simon, New York, N. Y. Head-covering	446,762	Feb. 17	2039	508	54	929
Tack, Josiah H. L., San Francisco, Cal. Excavator	465,738	Dec. 22	2756	704	57	1690
Tack, Nelson L., Camden, N. J., and J. S. Merritt, Philadelphia, Pa. Machine for automatically filling and weighing packages	461,651	Oct. 20	1805	444 445	57	359
Tucker, Alfred B., Monticello, Iowa. Kitchen-cabinet	465,221	Dec. 15	1929	491	57	1521
Tucker, Andrew J., assignor to Cheney Bigelow Wire Works, Springfield, Mass. Dandy-roll for paper-machines	464,467	Dec. 1	704	172	57	1269
Tucker, Argyle W., assignor of one-half to F. Hosford, Midlothian, Tex. Suspension-bridge	451,087	Apr. 28	2229	552	55	457
Tucker, Benjamin F., La Porte, Ind. Vehicle	458,865	Sept. 1	495	121	56	1159
Tucker, Charles A., East Orange, N. J. Pneumatic apparatus for operating doors	446,195	Feb. 10	1127	276 277	54	735
Tucker, Edwin W. (See Wass, Dyson D., assignor.)						
Tucker, Edwin W., San Francisco, Cal. Hot-air bridge-wall	455,135	June 30	3085	785 786	55	1765
Tucker, Frederick O. (See Furlong and Tucker.)						
Tucker, James A., Leominster, Mass. Picker-staff-operating mechanism for looms	462,340	Nov. 3	189	48	57	586
Tucker, Richard M., Conway, Mass. Spark-conductor	462,749	Nov. 10	831	218	57	720
Tucker, Stephen D., <i>et al.</i> (See Crowell, Luther C., assignor.)						
Tucker, Stephen D., New York, N. Y. Sheet-delivery mechanism for printing-machines	465,119	Dec. 15	1773	443	57	1491
Tucker, Stephen D., New York, N. Y. Sheet-collecting mechanism	465,604	Dec. 22	2565	658	57	1651
Tucker, Theophilus, Oakland, Cal. Ornamenting walls or ceilings	465,102	Dec. 15	1744	442	57	1486
Tucker, William, East Brookfield, Mass., assignor of one-half to W. W. Clock, Islip, N. Y. Cutting-off tool for lathes	456,279	July 21	1540	409	56	312
Tucker, William H., Newark, N. J. Index	455,807	July 14	836	320 321	56	169
Tudor, Kate B., Lexington, Ky. Flower-holder	451,645	May 5	309	75	55	637
Tuehnee, William A., Baltimore, Md. Strunged musical instrument	459,603	Sept. 15	1677	419	56	1406
Tuerffs, August, Ford City, Pa. Apparatus for the manufacture of glass pipes	459,490	Sept. 15	1490	374	56	1371
Tuerk, Samuel O., Syracuse, N. Y. Burnisher	449,391	Mar. 31	3455	869	54	1806
Tufts, Cyrus. (See Royce and Tufts.)						
Tufts, James W. (See Johnston, Frederic J., assignor.)						
Tufts, James W., Medford, and C. Adams, Boston, Mass., assignors to said Tufts. Apparatus for dispensing hot soda-water	453,872	June 9	1065	278 279	55	1358
Tufts, Lewis C., New York, N. Y. Means for releasing hatchway-doors in case of fire	461,857	Oct. 27	2136	527	57	431
Tullidge, Joseph. (See Simmons and Tullidge.)						
Tulloch, James, assignor of one-half to D. C. Demarest, Angel's Camp, Cal. Ore-feeder	460,733	Oct. 6	321	79	57	63
Tumbelson, Rile, Lombardville, Ill. Terret	455,836	July 14	892	232	56	178
Tungate, Samuel D., Des Moines, Iowa. Car-coupling	449,718	Apr. 7	113	29	55	24
Tunks, Gilbert S., Cardiff, England. Construction of bakers' ovens	445,826	Feb. 3	526	126 127	54	614
Tunnell, William B. (See Ellis, Jacob B., assignor.)						
Tunney, John J., Pittsburg, Pa. Lubricator for loose pulleys	455,368	July 7	107	30	56	25
Tunnicliff, Cornelius, Denver, Colo. Projectile	451,088	Apr. 28	2230	552	55	457
Tuoli, Saverio, New York, N. Y. Bench-plane	453,524	June 2	541	139	55	1250
Tupper, Earl, Cleveland, Ohio. Key-fastener	462,750	Nov. 10	833	219	57	721
Turbayne, William A., Toronto, Canada. Electric-arc lamp	458,987	Sept. 1	684	167	56	1199
Turkington, Alexander, Philadelphia, Pa. Jacquard mechanism for looms	446,039	Feb. 10	866	210 211	54	688
Turley, Leslie C., and W. G. Beyerly, Portsmouth, Ohio. Brick-drying apparatus	462,179	Oct. 27	2640	660	57	528
Turley, Mary A., assignor of one-half to L. F. McNett, Yonkers, N. Y. Ironing-support or seam-pressing frame	452,587	May 19	1850	465	55	939
Turnbull, Brisbane M., Pascagoula, Miss. Coin-handling facilitator	465,299	Dec. 15	2057	525 526	57	1544
Turnbull, David H., Owego, N. Y. Running-gear for wagons	452,814	May 26	2213	555	55	1019
Turnbull, William H., Fort Wayne, Ind. Washing-machine	444,737	Jan. 13	1193	308 309	54	242
Turnbull, William H., Defiance, Ohio. Washing-machine	453,135	May 26	2738	690	55	1120
Turner-Beard Automatic Brake Company. (See Turner, William B., assignor.)						
Turner, Donlee B., Chicago, Ill. Electric switch	448,698	Mar. 24	2339	587	54	1589
Turner, E. Manuel, Wilmington, Ohio. Hay-press	462,180	Oct. 27	2641	660	57	528
Turner, Ephraim M., and L. A. Brown, St. Louis, Mo., assignors to National Unicycle Elevated Railway Construction Company, East St. Louis, Ill. Making combined guard and guide rails	456,100	July 14	1256	331	56	248
Turner, Ephraim M., G. L. Van Beek, and L. A. Brown, St. Louis, Mo., assignors to National Unicycle Elevated Railway Construction Company, East St. Louis, Ill. Truss for elevated structures	456,101	July 14	1257	331	56	248
Turner, Ephraim M., G. L. Van Beek, and L. A. Brown, St. Louis, Mo., assignors to National Unicycle Elevated Railway Construction Company, East St. Louis, Ill. Truss for elevated structures	456,102	July 14	1259	331	56	248

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Turner, Ephraim M., G. L. Van Beek, and L. A. Brown, St. Louis, Mo., assignors to National Unicycle Elevated Railway Construction Company, East St. Louis, Ill. Motor-truck for elevated railways.	456,103	July 14	1260	332	56	249
Turner, Frank C. (See Raughtigan, Michael, assignor.)						
Turner, George E., Marion, Ohio. Electric valve-controller.	449,889	Apr. 7	365	92	55	72
Turner, George K. (See Haire, William H., assignor.)						
Turner, George W., South Omaha, Nebr. Storage-receptacle for cars.	452,247	May 12	1296	325	55	828
Turner, George W., assignor of one-half to J. C. Horrigan, St. Paul, Minn. Car-brake.	461,107	Oct. 13	861	232	57	173
Turner, Harry M., Birmingham, Ala. Combination torch and oiler.	464,839	Dec. 8	1280	321	57	1389
Turner, James J., assignor to J. J. Turner and J. F. Emrick, Casey, Ill. Breast-collar fastener.	456,450	July 21	1831	485	56	365
Turner, John, assignor of two-thirds to J. Wimmer and H. J. Muhlfeld, New York, N. Y. Car-body.	456,864	July 28	2520	662	56	503
Turner, Joseph A., Passaic, N. J. Shade-roller.	447,705	Mar. 3	655	170	54	1248
Turner, Joseph A., Passaic, N. J. Rubber tire.	454,092	June 16	1374	358	55	1425
Turner, Joseph R. (See Nicholas and Turner.)						
Turner, Kelly M. (See Reed and Turner.)						
Turner, Leonidas H., Minneapolis, Minn. Ditching-machine.	458,201	Aug. 25	2067	535	56	947
Turner, Robert W., Dublin, Tex. Tanning.	461,108	Oct. 13	862		57	173
Turner, Samuel, New Bedford, Mass. Shuttle-operating mechanism for looms.	445,682	Feb. 3	280	74	54	567
Turner, Samuel N. (See Dwelly, Charles H., assignor.)						
Turner & Seymour Manufacturing Company. (See Brothwell, John G., assignor.)						
Turner, Thomas G., New York, N. Y., assignor to American Sprinkler Head Company, of New York. Automatic fire-extinguisher.	456,451	July 21	1832	486	56	366
Turner, W. W., et al. (See Welch, Abram T., assignor.)						
Turner, William A., Worcester, Mass. Die-press.	451,534	May 5	134	33	55	605
Turner, William A., assignor to E. Converse, Worcester, Mass. Machine for stamping and perforating sheet metal.	445,603	Feb. 3	129	34	54	536
Turner, William A., assignor to E. Converse, Worcester, Mass. Die for shaping sheet metal.	451,203	Apr. 28	2435	602	55	496
Turner, William A., assignor to E. Converse, Worcester, Mass. Sheet-metal blank for knobs.	458,839	Sept. 1	453	109	56	1152
Turner, William A., assignor to E. Converse, Worcester, Mass. Sheet-metal knob.	461,175	Oct. 13	965	248	57	192
Turner, William A., assignor to E. Converse, Worcester, Mass. Sheet-metal-shaping machine.	463,345	Nov. 17	1793	469	57	914
Turner, William B., Schenectady, N. Y. Shaft-coupling.	447,925	Mar. 10	1076	269	54	1329
Turner, William B., Boston, Mass., assignor to Turner-Beard Automatic Brake Company, New York, N. Y. Reversible ratchet-clutch mechanism.	465,955	Dec. 29	3114	797	57	1767
Turner, William H., East Aurora, N. Y. Bed-spring.	452,815	May 26	2215	556	55	1020
Turner, William R., M. Hamilton, and A. T. Long, Bowers, Ind.. Washing-machine.	444,964	Jan. 20	1602	409	54	328
Turpin, William J., Oakdale Station, Pa. Rolls for corrugating and bending metal.	464,403	Dec. 1	616	152	57	1251
Turri, Giuseppe G. (See Jeffery, Dennis, assignor.)						
Turton, Benjamin, Newark, N. J. Manufacture of bridle-bits.	461,514	Oct. 20	1593	389	57	320
Turtou, Mordecai. (See Laney, Thomas G., assignor.)						
Turton, Mordecai, assignor of one-half to T. G. Laney, Lima, Ohio. Apparatus for removing paraffine from the pipes of oil-wells.	445,100	Jan. 20	1804	466	54	368
Turver, Charles H., Buffalo, assignor to F. Browning, Tonawanda, N. Y. Canal-boat.	449,092	Mar. 24	2943	746	54	1705
Tustin, John D. (See Atkinson, Richard L., assignor.)						
Tuten, William G., Bonnet, S. C. Baling-press.	457,173	Aug. 4	369	94, 95	56	603
Tuthill, Horace S., New York, N. Y. Delivery-wagon.	447,440	Mar. 3	278	70	54	1170
Tuthill, Victor M., et al. (See Annable, Warren W., assignor.)						
Tutt, John C., Guthrie, Oklahoma Ter. Corn-popping machine.	463,878	Nov. 24	2649	690	57	1086
Tuttle, James E. (See Sears and Tuttle.)						
Tuxbury, Charles, Windsor, Vt. Cloth-measuring machine.	452,816	May 26	2216	556	55	1020
Tverdal, Ole, assignor of one-half to O. Bilstad, Cambridge, Wis. Cash register and indicator.	460,455	Sept. 29	2984	746, 747, 748	56	1669
Tweeddale, William, Brooklyn, N. Y. Toilet-cabinet and refrigerator combined.	451,346	Apr. 28	2653	657	55	539
Tweedy, Thomas A., Knightstown, Ind., assignor to C. Crabbs, Toronto, Canada. Fence.	447,588	Mar. 3	521	127	54	1215
Twinch, Frederick, et al. (See Valentin, Basil W., assignor.)						
Twining, Allen H., Reading, Pa. Rod-packing.	446,699	Feb. 17	1942	484	54	908
Twist, Hiram, Erie, Pa. Hopper.	456,650	Apr. 21	1565	376	55	322
Twist, Thomas E., Milton, Pa. Mold.	445,737	Feb. 3	363	94	54	524
Twitcomb & Brother, S. (See Twitcomb, Selden, assignor.)						
Twitcomb, Frederick A., Albert Lea, Minn. Dental stove and blow-pipe.	459,057	Sept. 8	302	194	56	1228
Twitcomb, Selden, assignor to S. Twitcomb & Brother, Philadelphia, Pa. Bottle-washing machine.	444,261	Jan. 6	448	113	54	88
Tyden, Emil, Chicago, Ill. Planter.	456,604	Feb. 3	131	34, 35	54	537
Tyden, Emil, and S. B. Dover, assignors to Western Planter Manufacturing Company, Chicago, Ill. Planter.	453,330	June 2	231	61, 62, 63	55	1192
Tyers, William O., Smethwick, assignor to Nettlefolds, Limited, Birmingham, England. Machinery for making rolled-wire nails.	457,237	Aug. 4	476	125, 126, 127	56	622
Tyler, Aaron J., Passaic, N. J. Hydrant.	462,885	Nov. 10	1059	274, 275	57	765
Tyler, Abel D., Jr., Brockton, Mass., assignor to Tyler Manufacturing Company, Portland, Me. Door-spring.	445,101	Jan. 20	1806	466	54	368
Tyler, Alfred H., and J. S. E. de Vesian, London, England. Machine for drilling, boring, or shaping.	452,169	May 12	1179	298	55	804
Tyler, Frederick A., Rome, N. Y. File-cabinet.	451,535	May 5	136	34	55	605
Tyler, John W., Dayton, Ohio. Show-stand.	456,865	July 28	2522	663	56	504
Tyler, Joseph, Portland, Me. Sleigh.	453,679	June 9	787	202	55	1304
Tyler Manufacturing Company. (See Tyler, Abel D., Jr., assignor.)						
Tyler, Morris S., assignor of one-half to J. N. Alexander, Lansing, Mich. Wagon-axle.	465,705	Dec. 22	2712	692	57	1680
Tyler, Reuben G., et al. (See Paro, Emil W., assignor.)						
Tyler, Vernon A., Morris Park, N. Y. Rail-joint for railways.	451,646	May 5	310	75	55	637
Tyler, William E., Aldie, Va. Gate-latch.	448,735	Mar. 24	2437	610	54	1607
Tyler, William W., assignor to James Leffel & Company, Springfield, Ohio. Water-wheel.	459,969	Sept. 22	2251	565, 566	56	1522
Tyng, Francis E., Irvington, N. Y. Time-recorder.	448,560	Mar. 17	2093	525	54	1535
Typograph Company. (See Secor, Jerome B., assignor.)						
Tyce, Josiah S., Washington, D. C. Litmus pencil.	458,244	Aug. 25	2145	526	56	962
Tyrril, Alvin D., Dayton, Ohio, assignor of one-half to S. J. Sibley, West Springfield, Mass. Wheeled insect-destroyer.	444,786	Jan. 13	1261	327	54	254

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Tyrrel, Alvin D., South Hadley Falls, assignor to Hampden Envelope Company, Holyoke, Mass. Envelope-machine	452,325	May 12	1424	{ 352 353 }	{ 55 56 }	851 468
Tyrrel, Robert A., assignor of one-half to J. H. Rehse, Detroit, Mich. Bonquet-holder	456,745	July 28	2327	614	56	1161
Tyrell, Sylvanus M., Grand Crossing, Ill. Breech-loading cannon	464,069	Dec. 1	125	31	57	1828
Tyrell, Thomas C., Glendive, Mont. Platform for freight-cars	449,452	Mar. 31	3565	899	54	372
Tyson, Bryan, assignor of one-tenth to C. A. Metcalf, Washington, D. C. Concentrator	461,692	Oct. 20	1867	463	57	372
Tyson, Bryan, assignor of one-tenth to C. A. Metcalf, Washington, D. C. Concentrator	461,693	Oct. 20	1872	464	57	372
Tyson, William H., Coffeyville, Kans. Steak-pounder	446,485	Feb. 17	1618	396	54	847
U. S. Rolling Stock Company. (See Kennedy, Martin, assignor.)						
Udell, Calvin G. (See Egan and Udell.)						
Udell, Calvin G., North Indianapolis, Ind. Combined coat and umbrella rack	454,507	June 23	2003	519	55	1554
Udell, Calvin G., North Indianapolis, Ind. Table	454,508	June 23	2004	519	55	1554
Udstad, Sivert, and R. Ryan, Aurora, Ill. Rod-packing	454,093	June 16	1374	358	55	1425
Uhlinger, William P. (See Rehfuss, George, J. G., and M. O., assignors.)						
Uhlinger, William W., Philadelphia, Pa. Double-lift open-shed dobby	453,680	June 9	787	203	55	1305
Uhlmann, Frederick, et al. (See Stockheim, Heinrich, assignor.)						
Uhlmann, Simon, et al. (See Stockheim, Heinrich, assignor.)						
Ulbricht, Karl A. E., Tanbenheim, near Meissen, Germany. Walking-stick grapple	465,222	Dec. 15	1930	491	57	1521
Ulery, John. (See Brookins, Hiram, assignor.)						
Ulfing, Charles, Martin's Ferry, Ohio. Manufacture of glassware	466,062	Dec. 29	3314	846	57	1806
Ullmer, William. (See Huttenlocher and Ullmer.)						
Ullven, Alfred W., Beverly, assignor to H. I. Bettis, Salem, Mass. Roundabout	444,585	Jan. 13	953	247	54	197
Ulrich, Moritz, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Dioxynaphthalene-mono-sulphonic acid	444,679	Jan. 13	1093		54	224
Ulrich, Moritz, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Black azo dye	466,202	Dec. 29	3524		57	1846
Unangst, Edward E., Nazareth, Pa. Washing-machine	446,800	Feb. 17	2096	522	54	941
Unbehend, Jacob J., Syracuse, N. Y., assignor to J. L. Thomson Manufacturing Company, Portland, Me. Shoe-clasp	450,593	Apr. 14	1426	351	55	280
Unbehend, Jacob J., Syracuse, N. Y., assignor to Judson L. Thomson Manufacturing Company, Waltham, Mass. Riveting-machine	465,148	Dec. 15	1822	462	57	1500
Unckrich, Ferdinand F., assignor to W. H. Stone, Sandusky, Ohio. Nut-lock	448,385	Mar. 17	1835	462	54	1486
Unckrich, Ferdinand F., assignor to W. H. Stone, Sandusky, Ohio. Nut-lock	453,222	June 2	63	17	55	1160
Underground Electric Traction Company. (See Sheldon and Murnane, assignors.)						
Underhill, Charles B., Lancaster, N. Y. Spring attachment for buckles	449,015	Mar. 24	2824	715	54	1682
Underhill, Charles B., Lancaster, N. Y. Oil-can	459,320	Sept. 8	1206	295	56	1308
Underwood, Frank H., Tolland, Conn. Drawing-ring for frictional gearing	451,985	May 12	838	214	55	745
Underwood, Frank H., Tolland, Conn. Frictional gearing	451,986	May 12	840	215	55	745
Underwood, Frank H., Tolland, Conn. Frictional gearing	451,987	May 12	842	215	55	746
Underwood, Harold G. (See Coleman, Loomis H., assignor.)						
Underwood, Harold G., et al. (See Bangs, Edwin D., assignor.)						
Underwood, Harold G., et al. (See Stroner, George, assignor.)						
Underwood, John K., La Moure, N. D., assignor of one-half to J. W. Stoddard. Seed-planter	461,153	Oct. 13	927	{ 239 240 }	{ 57 58 }	185 1160
Underwood, Samuel, Sudbury, Mass. Saw-filing device	453,223	June 2	64	17	55	1160
Underwood, Thomas J., Decatur, Ill. Elevator	448,699	Mar. 24	2340	587	54	1590
Underwood, Walter H. (See Fonda, Roach, and Underwood.)						
Underwood, Walter H. (See Otis and Underwood.)						
Underwood, Wells A., Wooster, Ohio. Whip	460,456	Sept. 29	2990	{ 747 748 }	{ 56 57 }	1670 1671
Underwood, William S. (See Eaby, Jackson L., assignor.)						
Unexcelled Fireworks Company. (See Street, George W., assignor.)						
Unger, Frank P., Hagerstown, Md. Lubricator	457,683	Aug. 11	1228	{ 315 316 }	{ 56 57 }	771 772
Union Hydraulic Drain Tile Company. (See Sherman, Willis D., assignor.)						
Union Manufacturing and Plating Company. (See Edwards, William J., assignor.)						
Union Manufacturing and Plating Company. (See Meeker, Lorenzo, assignor.)						
Union Manufacturing Company. (See Frost, Richard L., assignor.)						
Union Paper Bag Machine Company. (See Claussen, Edward E., assignor.)						
Union Paper Bag Machine Company. (See Patterson, William H., assignor.)						
Union School Furniture Company. (See Cary, Alanson, assignor.)						
Union Special Sewing Machine Company. (See Hunter, Rudolph M., assignor.)						
Union Special Sewing Machine Company. (See McNeil, Chester, assignor.)						
Union Special Sewing Machine Company. (See Munter, Lorenz, assignor.)						
Union Special Sewing Machine Company. (See Onderdonk, Lansing, assignor.)						
Union Special Sewing Machine Company. (See Timm, Charles, assignor.)						
Union Special Sewing Machine Company. (See Woodward, Russel G., assignor.)						
Union Store Service Company. (See Caille, Adolph A., assignor.)						
Union Switch and Signal Company. (See Hambay, James T., assignor.)						
United Gas Improvement Company. (See Collins and Knapp, assignors.)						
United Gas Improvement Company. (See Currie, Stanley C. C., assignor.)						
United Gas Improvement Company. (See Smith, Walter F., assignor.)						
United Indurated Fibre Company. (See Carmichael, Henry, assignor.)						
United Indurated Fibre Company. (See Hubbard, Eber, assignor.)						
United Indurated Fibre Company. (See Keyes, Frank E., assignor.)						
United Railway Supplies Company. (See Thayer, George C., assignor.)						
United Shirt and Collar Company. (See Pine, James K. P., assignor.)						
United States Aërophor Air Moistening and Ventilating Company. (See Ochlmann, Emil H. C., assignor.)						
United States Butter Extractor Company. (See Johansson, Carl A., assignor.) (Reissue.)						
United States Credit System Company. (See Maybaum, Levy, assignor.)						
United States Electric Fire Signal Company. (See Martin, Morris, assignor.)						
United States Encaustic Tile Works. (See Nuebling, Louis W., assignor.)						
United States Fire Proofing Company. (See McCarthy, Mitchell F., assignor.)						
United States Fire Proofing Company. (See Meyenberg, Franz P., assignor.)						
United States Fuel Company. (See Schimper, Rudolph J., assignor.)						
United States Heat, Light, and Power Company. (See Kitson, Arthur, assignor.)						
United States Light and Fuel Company. (See Stewart, John L., assignor.)						
Universal Arc Lamp Company. (See Scheffauer, Rupert, assignor.)						
Universal Arc Lamp Company. (See Ward, John H. R., assignor.)						
Universal Company. (See Lockstaedt, Carl C., assignor.)						
Universal Lasting Machine Company. (See Patten, John, assignor.)						
Universal Lock Company. (See Smith, Eugene C., assignor.)						
Universal Sewing Machine Motor Attachment Company. (See Reed, Eli S., assignor.)						
Universal Sewing Machine Motor Attachment Company. (See Reed and Painter, assignors.)						
Unland, Herman H., Cimarron, Kans. Incubator	447,453	Mar. 3	302	76	54	1175

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Unz, Henry H., Philadelphia, Pa., assignor to National Type Writer Company, of Pennsylvania. Type-writing machine.....	449,640	Mar. 31	3871	969	54	1885
Updegraff, Oliver P., Topeka, Kans. Training-wagon.....	458,668	Sept. 1	190	44, 45	56	1101
Upham, Chester O. and L. F., Hyde Park, Mass. Headed knob for carriages, &c.....	454,549	June 23	2060	533	55	1564
Upham, Lawyer F. (See Upham, Chester O. and L. F.)						
Upjohn, Fred L., Brooklyn, N. Y. Inhaler.....	453,677	June 9	784	202	55	1304
Upjohn, Fred L., Kalamazoo, Mich. Pill enumerator and bottling machine.....	453,873	June 9	1067	279	55	1359
Upson, Andrew S., Unionville, Conn., and F. A. Smith, Cleveland, Ohio, assignors to Upson Nut Company, Farmington, Conn. Oil-burner.....	451,784	May 5	520	{ 128 129 }	{ 55 55 }	{ 677 677 }
Upson, Charles H., <i>et al.</i> (See Neuberth, George E., assignor.)						
Upson, Charles M. (See Bacon, Sherman B., assignor.)						
Upson Nut Company. (See Upson and Smith, assignors.)						
Upson, Waldo L., Meriden, assignor to Peck, Stow & Wilcox Company, Southington, Conn. Bell.....	450,819	Apr. 21	1826	443	55	370
Upson, Waldo L., Meriden, assignor to Peck, Stow & Wilcox Company, Southington, Conn. Bell.....	454,190	June 16	1514	397	55	1452
Upton, Charles S. (See Henkle, Leonard, assignor.)						
Upton, Charles S. (See Rhind, Frank, assignor.)						
Upton, Julius B. (See McWhirter, Langley, and Upton.)						
Urbahn, Atwill, assignor to American Loop Fabric Company, Brooklyn, N. Y. Tension device for machines for making chenille or ornamental cord.....	461,059	Oct. 13	796	203	57	160
Urech, Jacob R. (See Gibbs, William H., assignor.)						
Urling, G. A., <i>et al.</i> (See Lappe, Martin, assignor.)						
Urling, H. W., <i>et al.</i> (See Lappe, Martin, assignor.)						
Utility Manufacturing Company. (See Caille, Joseph M., assignor.)						
Utility Manufacturing Company. (See Zerbe, Emil P., assignor.)						
Uster, John, Paterson, N. J. Securing backs to soap.....	452,419	May 19	1580	392	55	890
Utley, Thomas, Liverpool, England. Ship's ventilator.....	461,694	Oct. 20	1876	464	57	373
Utley, Thomas, Liverpool, England. Ventilator.....	462,604	Nov. 3	602	148	57	667
Utt, Ely. (See Lewis, Laban, assignor.)						
Vacuum Wet Machine Company. (See Parker and Cushman, assignors.)						
Vahle, Otto, Philadelphia, Pa. Cattle-fish holder.....	445,415	Jan. 27	2281	592	54	471
Vail, Joseph C., Maple's Mill, assignor to himself and G. W. Ray, Bryant, Ill. Sheck-compressor.....	444,787	Jan. 13	1262	327	54	254
Vail, Jonathan H. (See Van Nuis and Vail.)						
Vail, Willis W., Quakertown, N. J. Commutator for electrical machines.....	463,694	Nov. 24	2365	619	57	1032
Vaile, John H., Dayton, Ohio. Process of and apparatus for expressing oil and regulating the action of hydrostatic presses.....	456,606	July 28	2080	{ 550 551 552 }	{ 56 56 56 }	{ 421 421 421 }
Valentin, Basil W., Birmingham, England, assignor to F. Twinch, A. E. J. Tovey, and F. Wyatt, New York, N. Y. Brewing malt liquors.....	449,503	Mar. 31	3638	.....	54	1842
Valentine, Julius S., Lansing, Mich. Safety attachment for gas-burners.....	451,785	May 5	521	129	55	677
Valentine, Sterling G., Lebanon, Pa. Kiln.....	459,799	Sept. 22	1988	500	56	1472
Valiant, George, Toronto, Canada. Boot or shoe.....	452,655	May 19	1957	491	55	960
Valjean, J. E. (See Lottridge, William M., assignor.)						
Valleau, Thomas M. (See Costigan, Joseph P., assignor.)						
Valleau, Thomas M. (See Costigan and Valleau.)						
Valley, John N., Jersey City, N. J. Elevated railway.....	446,272	Feb. 10	1277	313	54	764
Valley, John N., Jersey City, N. J. Elevated railway.....	446,273	Feb. 10	1279	313	54	765
Valley, John N., Jersey City, N. J. Elevated railway. (Reissue).....	11,158	Apr. 21	2128	525	55	428
Valley, John N., Jersey City, N. J. Brake for elevated-railway carriages.....	456,866	July 28	2523	663	56	504
Valley, John N., Jersey City, N. J. Elevated-railway carriage.....	456,867	July 28	2524	{ 663 664 }	{ 56 56 }	{ 504 504 }
Valley Machine Company. (See Palmer, Randall A., assignor.)						
Van, Daniel, Cincinnati, Ohio. Holder or rack for brooms, &c.....	444,079	Jan. 6	157	39	54	34
Van Alen, Jacob, Brooklyn, and C. W. McCutchen, Peekskill, N. Y. Oil-stove.....	444,059	Jan. 6	123	30	54	27
Van Allen, Charles H., Halsey, Ore. Month-piece for cornets.....	463,084	Nov. 10	1366	353	57	825
Van Allen, Daniel R., Chatlam, Canada. Wagon-axle.....	462,181	Oct. 27	2643	661	57	528
Van Arsdale, Charles B., Sydenham, Canada. Mica cutter and gage.....	459,773	Sept. 22	1949	491	56	1464
Van Anken, Clarence E., Chicago, Ill. Valve for automatically venting hot-water heating-radiators.....	458,202	Aug. 25	2070	536	56	947
Van Anken, Miner, Utica, N. Y. Washing-machine.....	454,309	June 16	1689	{ 441 442 }	{ 55 55 }	{ 1487 1487 }
Van Beek, George L. (See Turner, Van Beek, and Brown.)						
Van Benthuyzen, Frank, Albany, N. Y. Bracket for holding paper in a suspended position.....	446,486	Feb. 17	1619	397	54	847
Van Benthuyzen, Frank, Albany, N. Y. Friction-clutch.....	457,446	Aug. 11	864	225	56	701
Van Benthuyzen, Frank, Albany, N. Y. Roller-bearing.....	459,774	Sept. 22	1950	492	56	1465
Van Bree, Hubert. (See Eisenman and Van Bree.)						
Van Brunt, Daniel C. and W. A., Horicon, Wis. Grain-drill.....	461,292	Oct. 13	1156	295	57	231
Van Brunt, Edward W., and W. M. Raynor, Scranton, Pa. Lightning-arrester.....	461,991	Oct. 27	2355	584	57	474
Van Brunt, Willard A. (See Van Brunt, Daniel C. and W. A.)						
Van Buren, Judson D., Sioux City, Iowa. Corn-harvester.....	463,975	Nov. 24	2799	725	57	1115
Van Buskirk, J., <i>et al.</i> (See Bliss, Henry-S., assignor.)						
Van Cheate, Silvanus F., Boston, Mass. Making filaments for electric lighting.....	450,304	Apr. 14	985	.....	55	196
Van Deuse, John H. C., and M. J. Reiseger, Muskegon, Mich. Making starch.....	444,127	Jan. 6	248	60	54	59
Van Doll, John, New Decatur, Ala. Car-coupling.....	463,782	Nov. 24	2486	649	57	1051
Van Denburgh, Orville W., Schuylerville, N. Y. Beverage-pitcher.....	451,584	May 5	209	50	55	616
Van Depoele, Charles J., Lynn, Mass. Electric motor.....	444,188	Jan. 6	342	{ 83, 84 84 }	{ 54 54 }	{ 69 69 }
Van Depoele, Charles J., Lynn, Mass. Electric-motor reciprocating engine.....	445,102	Jan. 20	1808	467	54	368
Van Depoele, Charles J., Lynn, Mass. Multiple rock-drill.....	447,214	Feb. 21	2825	701	54	1086
Van Depoele, Charles J., Lynn, Mass. Electric-railway system.....	447,215	Feb. 21	2826	{ 701 702 }	{ 54 54 }	{ 1086 1086 }
Van Depoele, Charles J., Lynn, Mass. Electric-railway motor.....	448,561	Mar. 17	2096	{ 525 526 527 }	{ 54 54 54 }	{ 1536 1536 1537 }
Van Depoele, Charles J., Lynn, Mass. Electric locomotive.....	448,562	Mar. 17	2101	{ 527 528 529 }	{ 54 54 54 }	{ 1537 1537 1537 }
Van Depoele, Charles J., Lynn, Mass. Electric-railway system.....	448,563	Mar. 17	2104	{ 529 530 531 }	{ 54 54 54 }	{ 1537 1537 1537 }
Van Depoele, Charles J., Lynn, Mass. System of electrical distribution.....	450,541	Apr. 14	1347	{ 332 333 334 }	{ 55 55 55 }	{ 265 265 265 }
Van Depoele, Charles J., Lynn, Mass. Reciprocating electric-railway motor system.....	450,542	Apr. 14	1349	{ 335 336 337 }	{ 55 55 55 }	{ 266 266 266 }
Van Depoele, Charles J., Lynn, Mass. Electro-magnetic reciprocating engine.....	450,543	Apr. 14	1352	333	55	267
Van Depoele, Charles J., Lynn, Mass. Pulsating-current electric motor.....	450,544	Apr. 14	1353	333	55	267

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Van Depoele, Charles J., Lynn, Mass. Operating reciprocating electric engines	451,786	May 5	523	129	55	677
Van Depoele, Charles J., Lynn, Mass. Electric reciprocating engine	452,296	May 12	1366	340	55	810
Van Depoele, Charles J., Lynn, Mass. Pulsating-current reciprocating electric-engine system	455,520	July 7	346	89	56	69
Van Depoele, Charles J., Lynn, Mass. System of electric-railway conductors	458,867	Sept. 1	500	122	56	1160
Van Depoele, Charles J., Lynn, Mass. Electric coal-mining machine	458,868	Sept. 1	503	{ 122 123 }	56	1161
Van Depoele, Charles J., Lynn, Mass. Circuit-controller for electro-magnetic engines	458,869	Sept. 1	505	123	56	1162
Van Depoele, Charles J., Lynn, Mass. System of supplying current to reciprocating electric engines	458,870	Sept. 1	509	124	56	1162
Van Depoele, Charles J., Lynn, Mass. Telfer system	458,871	Sept. 1	512	{ 124 125 }	56	1163
Van Depoele, Charles J., Lynn, Mass. Electro-magnetic reciprocating engine	458,872	Sept. 1	517	126	56	1163
Van Depoele, Charles J., Lynn, Mass. Combined electric engine and pump	458,873	Sept. 1	518	126	56	1164
Van Depoele, Charles J., Lynn, Mass. Reciprocating electric engine	458,874	Sept. 1	520	126	56	1164
Van Depoele, Charles J., Lynn, Mass. System of reciprocating electric engines	458,954	Sept. 1	627	155	56	1187
Van Depoele, Charles J., Lynn, Mass. Motor-truck	461,293	Oct. 13	1154	296	57	232
Van Depoele, Charles J., Lynn, Mass. Automatic electric pump	461,294	Oct. 13	1160	296	57	232
Van Depoele, Charles J., Lynn, Mass. Electrically-actuated pump	461,295	Oct. 13	1162	296	57	232
Van Depoele, Charles J., Lynn, Mass. Actuating device for moving commutator-brushes	461,297	Oct. 13	1166	297	57	233
Van Depoele, Charles J., Lynn, Mass. Electric-railway motor	462,751	Nov. 10	834	219	57	721
Van Depoele, Charles J., Chicago, Ill. Closed conduit for electric railways	458,866	Sept. 1	497	{ 121 122 }	56	1160
Van Depoele, Charles J., Chicago, Ill. Armature for electric motors	461,296	Oct. 13	1164	297	57	233
Van Derveer, Benjamin B., New York, N. Y. Show-window	463,848	Nov. 24	2588	674	57	1076
Van Deventer, William, Tacoma, Wash. Tail-piece for stringed musical instruments	463,013	Nov. 10	1252	325	57	803
Van Deusen, Charles H., Verona, Ill. Windmill	458,602	Sept. 1	82	19	56	1082
Van Dewere, John R. (See Holmes, Daniel M., assignor.)						
Van Dorn, Ferdinand, Basking Ridge, N. J. Cotton-harvester	444,801	Jan. 13	1281	{ 331 332 }	54	258
Van Dorston, Alvin W., Washington, D. C. Cushioned carrier-iron for draw-bars	458,924	Sept. 1	589	{ 143 144 145 }	56	1179
Van Dusen, Charles, assignor of two-thirds to J. H. Kraft and W. S. Shoninger, New Albany, Ind. Barber's indicator	463,672	Nov. 24	2324	610	57	1025
Van Dusen, Curtis W. (See Kynett and Van Dusen.)						
Van Dusen, George W., Norwood, N. Y. Tremolo attachment for stringed musical instruments	462,519	Nov. 3	466	114	57	639
Van Duyn, Augustus C., et al. (See Brock, Thomas, assignor.)						
Van Dyke, Josiah D., assignor of one-half to Stovens & Hills, Oneonta, N. Y. Wire-splicer and spiral-spring winder	450,203	Apr. 14	821	206	55	166
Van Dyke, Benjamin G. (See Lamb and Van Dyke.)						
Van Epps, Charles H., Scott, Ind. Fence-wrench	448,564	Mar. 17	2108	528	51	1538
Van Eps, Henry R., Peoria, Ill. Wire window-rack for flower-pots	459,604	Sept. 15	1678	419	56	1406
Van Evera, Dewitt, Chicago, Ill. Stove attachment	457,963	Aug. 18	1706	{ 446 447 }	56	871
Van Fleet, Fred, Williamsport, Pa. Type-cleaning brush for type-writing machines	447,141	Feb. 24	2703	670	54	1061
Van Fleet, Fred, Williamsport, Pa. Type cleaning brush for type-writing machines	450,126	Apr. 7	705	177	55	137
Van Fleet, Fred, Williamsport, Pa. Type-cleaning brush for type-writing machines	457,684	Aug. 11	1229	316	56	771
Van Fleet, Fred, Williamsport, Pa. Tune-changing device for music-boxes	459,970	Sept. 22	2253	566	56	1522
Van Galen, Wilhelm. (See Terlinden and Van Galen.)						
Van Gestel, Jean T., assignor to Crosby Electric Company, New York, N. Y. Electric battery	451,142	Apr. 28	2320	575	55	475
Van Gülpen, Max, Mülheim, Germany. Cigar-bunching machine	451,610	May 5	248	59	55	627
Van Gülpen, Max, Mülheim, Germany. Machine for making cigar-fillers	457,238	Aug. 4	477	{ 126 127 }	56	623
Van Harlingen, William L., Sr. and Jr. (See Kintzel, James E., assignor.)						
Van Hennik, Burtis, New York, N. Y. Package-elevator	449,453	Mar. 31	3566	899	54	1828
Van Hise, Charles H., New York, N. Y. Lamp	458,509	Aug. 25	2588	{ 630 631 }	56	1045
Van Hoesen, Eugene M., Preble, N. Y. Device for catching mail-bags	446,550	Feb. 17	1720	422	54	866
Van Hoesen, George D., Brooklyn, N. Y. Weighing and packing machine	447,385	Mar. 3	175	48	54	1151
Van Hoevenbergh, Henry. (See Bates and Van Hoevenbergh.)						
Van Hoevenbergh, Henry, assignor to Equitable Manufacturing and Electric Company, New York, N. Y. Printing-telegraph	455,075	June 30	2992	761	55	1747
Van Hoevenbergh, Henry, Elizabeth, N. J., assignor to Baltimore and Ohio Telegraph Company, Baltimore, Md. Printing-telegraph	457,239	Aug. 4	481	{ 127 128 }	56	623
Van Horn, Charles F. (See Schlesinger, William M., assignor.)						
Van Horn, David E., Elkhart, Ind. Wrench	450,651	Apr. 21	1566	376	55	322
Van Horn, Edward C., Denver, Colo. Carpenter's gage	440,236	Sept. 29	2656	662	56	1607
Van Horn, Edwin S., and L. D. Allabach, Wilkes-Barre, Pa. Valve-gear for steam-engines	461,992	Oct. 27	2358	585	57	474
Van Horn, Joseph E., Elliott, assignor of one-half to L. Hollis, Henderson Station, Ill. Gate	463,798	Nov. 24	2509	655	57	1060
Van Horn, William, assignor to C. E. Stuart, Piqua, Ohio. Roll-paper holder and cutter	448,097	Mar. 10	1341	343	54	1381
Van Horn, William C., South Pittsburg, Tenn. Separator for the precious metals	448,098	Mar. 10	1344	343	54	1381
Van Horn, William C., South Pittsburg, Tenn. Coke and cinder conveyor	460,226	Sept. 29	2644	659	56	1605
Van Houten, Cornelius. (See Hoffman and Van Houten, assignors.)						
Van Houten, Frank H., Matteawan, N. Y. Machine for forming geometrical figures on spherical or curvilinear bodies	460,168	Sept. 29	2559	{ 638 639 }	56	1588
Van Houten, Frank H., Matteawan, N. Y., assignor to C. L. Goehring, Allegheny, Pa. Molding-machine	450,789	Apr. 21	1766	{ 429 430 }	55	360
Van Houten, Willard B. (See Hoffman and Van Houten.)						
Van Kannel, Theophilus, Philadelphia, Pa. Apparatus for scalding vegetables or fruits	448,895	Mar. 24	2649	665	54	1647
Van Kersen, James J., Kalamazoo, Mich. Barrel-stand	458,925	Sept. 1	591	145	56	1180
Van Leer, John S., and J. T. Redmon, Sedalia, Mo. Spike	460,412	Sept. 29	2926	731	56	1658
Van Ness, Albert, Beloit, assignor to C. P. Stevens, Mitchell County, Kans. Windmill	444,262	Jan. 6	449	{ 113 114 }	54	89
Van Ness, Thomas E., Newark, and R. C. W. Lewis, Jersey City, N. J. Making bridle-bits	449,300	Mar. 31	3277	830	54	1775
Van Nest, John, Jr., and W. B. Kinney, Newark, N. J. Apparatus for transferring coal to moving locomotive-tenders	444,947	Jan. 20	1570	403	54	332
Van Nort, Sterling P., St. Louis, Mo. Electric switch	461,298	Oct. 13	1168	297	57	234
Van Nuis, Charles S., New Brunswick, N. J. Cut-out	449,301	Mar. 31	3279	831	54	1775
Van Nuis, Charles S., New Brunswick, N. J., and J. H. Vail, New York, N. Y. Lighting-arrester	455,955	July 14	1055	277	56	209

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Van Nuis, Charles S., New Brunswick, N. J., and J. H. Vail, New York, N. Y. Fusible cut-out	458,603	Sept. 1	84	19	56	1082
Van Orman, Clayton M., assignor of one-half to P. N. Arvidson, Kalamazoo, Mich. Umbrella-holder	456,175	July 21	1374	365	56	280
Van Orthwick, Charles H., Quincy, Mich. Hame	461,003	Oct. 13	716	184	57	146
Van Osdel, Mary E. (See Dudoire, Narcise, assignor.)						
Van Ostrand, Edward T., et al. (See Dutcher and Boyle, assignors.)						
Van Patten, Frederick, Auburn, N. Y. Spring-tooth harrow	445,324	Jan. 27	2149	556	54	445
Van Patten, Frederick, Auburn, N. Y. Carriage-top joint	456,452	July 21	1833	486	56	366
Van Patten, Frederick, Auburn, N. Y. Hame	458,604	Sept. 1	85	19	56	1082
Van Pelt, Milner. (See Pearson and Barlett, assignors.)						
Van Pelt, Nicholas N., East Orange, N. J. Whiffletree	461,652	Oct. 20	1808	445	57	359
Van Rheeden, Albertus F., Strasburg, Ill. Cigar cutter and perforator	454,934	June 30	2728	695	55	1695
Van Ruymbeke, Joseph, assignor of one-half to W. F. Jobbins, Chicago, Ill. Phosphate and making the same	446,087	Feb. 10	944		54	703
Van Ruymbeke, Joseph, assignor of one-half to W. F. Jobbins, Chicago, Ill. Making phosphatic fertilizers	446,998	Feb. 24	2432		54	1012
Van Ruymbeke, Joseph, assignor of one-half to W. F. Jobbins, Chicago, Ill. Making basic persulphate of iron	453,137	May 26	2741		55	1121
Van Ruymbeke, Joseph, assignor of one-half to W. F. Jobbins, Chicago, Ill. Obtaining glycerine from soap-makers' waste	458,647	Sept. 1	156		56	1096
Van Ruymbeke, Joseph, assignor of one-half to W. F. Jobbins, Chicago, Ill. Plant for treating soap-makers' waste to obtain glycerine	458,648	Sept. 1	159	37	56	1096
Van Ruymbeke, Joseph, assignor to National Chemical and Fertilizer Company, Chicago, Ill. Nitrogenous fertilizer	446,088	Feb. 10	945		54	703
Van Ruymbeke, Joseph, assignor to National Chemical and Fertilizer Company, Chicago, Ill. Nitrogenous fertilizer	448,387	Mar. 17	1843		54	1487
Van Ruymbeke, Joseph, assignor to National Chemical and Fertilizer Company, Chicago, Ill. Phosphatic fertilizer	453,749	June 9	897		55	1326
Van Ruymbeke, Joseph, assignor to National Chemical and Fertilizer Company, Chicago, Ill. Phosphatic fertilizer	453,750	June 9	899		55	1326
Van Ruymbeke, Joseph, assignor to National Chemical and Fertilizer Company, Chicago, Ill. Making fertilizer from stick	461,164	Oct. 13	942		57	188
Van Schaick, John E., Walworth, Wis. Automatic windmill-regulator	458,926	Sept. 1	592	145	56	1180
Van Seggern, Frederick. (See Patton, Isaac S., assignor.)						
Van Severen, Jean F., Alost, Belgium. Sawing-machine	465,770	Dec. 22	2810	{ 720 721 }	57	1700
Van Sluys, Cornelis J., Ymuiden, and C. Steffelaar, Jzn., Velzen, Netherlands. Deck-support for ships' boats	455,137	June 30	3089	786	55	1765
Van Slyke, John K., New York, N. Y. Receptacle for keeping press-copying pads moist	456,453	July 21	1834	486	56	366
Van Stone, Edwin D., assignor to R. and F. E. Wheeler, Utica, N. Y. Hot-water and steam heater	444,802	Jan. 13	1283	{ 333 334 }	54	259
Van Stone, Edwin D., assignor to R. and F. C. Wheeler, Utica, N. Y. Grate	449,641	Mar. 31	3872	969	54	1886
Van Syckel, Stephen W. (See Stilwell, Charles, assignor.)						
Van Valkenburg, Jerome, Crooked Lake, Mich. House-door letter-box	456,972	Aug. 4	77	18	56	548
Van Vechten, Orville R., assignor to J. E. Warner, Norwich, Conn. Machine for making braided cordage	445,256	Jan. 27	2059	{ 530 531 532 }	54	426
Van Vestrant, Ludovico, Southall, England. Retort-charging apparatus	450,688	Apr. 21	1622	389	55	333
Van Vleck, John, assignor to L. Stieringer, New York, N. Y. Rheostat	456,280	July 21	1542	409	56	312
Van Vleck, William J. (See Groat and Van Vleck.)						
Van Vliet, Simon, Rutherford, N. J. Scaffold-bracket	446,802	Feb. 17	2101	523	54	942
Van Volkenburgh, Phillip, et al. (See Thomas, Charles W., assignor.)						
Van Vradenburg, Peter D., Binghamton, N. Y. Vehicle-starter	463,959	Nov. 24	2771	{ 718 719 }	57	1110
Van Wagenen, George, New York, N. Y. Machine for the manufacture of wrought-metal swivels	453,751	June 9	900	234	55	1326
Van Wagoner & Williams Company. (See Ball, Robert R., assignor.)						
Van Wie, Abram, Cheshire, N. Y. Wire-stretcher	465,399	Dec. 15	2228	571	57	1577
Van Wie, Peter G., Cleveland, Ohio. Stop and waste cock	450,763	Apr. 21	1722	417	55	352
Van Winkle, George H., Hornellsville, assignor of one-half to J. A. Stewart and J. G. Baker, Rochester, N. Y. Latch	452,738	May 19	2090	526	55	986
Van Winkle, Isaac, Dysart, Iowa. Wagon end-gate	455,370	July 7	110	31	56	25
Van Winkle, John A., Denison, Iowa. Washing-machine	451,787	May 5	525	129	55	678
Van Winkle, Moses D., Bloomfield, N. J. Organ	464,270	Dec. 1	425	101	57	1215
Van Woert, Frank T., Brooklyn, N. Y. Syringe	455,371	July 7	111	31	56	25
Van Wormer, Francis M., assignor to Sandy Hill Iron and Brass Works, Sandy Hill, N. Y. Paper-making machine	459,351	Sept. 8	1263	311	56	1319
Van Wye, Garry P., Winfield, Kans. Seed-planter and marker	461,060	Oct. 13	797	204	57	160
Van Zandt, George, Chicago, Ill. Pocket savings-bank	461,176	Oct. 13	967	249	57	192
Van Zile, Harry L. (See MacCormack and Van Zile.)						
Vance, Elmer E., Columbus, Colo. Railway-train effect for dramatic stages	458,081	Aug. 18	1879	490	56	905
Vance, William H., San Francisco, Cal. Shutter for fire-grates	453,765	June 9	925	240	55	1331
Vande Plancke, Désiré and G., Courtrai, Belgium. Electric regulating-clock	446,801	Feb. 17	2097	{ 522 523 }	54	941
Vande Plancke, Gustave. (See Vande Plancke, Désiré and G.)						
Vandegraft, Andrew J., St. Louis, Mo. Steam-engine	462,182	Oct. 27	2644	{ 661 662 663 }	57	529
Vandegrift Manufacturing Company. (See Vandegrift, Theodore F., assignor.)						
Vandegrift, Theodore F., assignor to Vandegrift Manufacturing Company, Shelbyville, Ind. Wrench	444,171	Jan. 6	319	77	54	65
Vandegrift, Theodore F., Noab, assignor to Vandegrift Manufacturing Company, Shelbyville, Ind. Wrench	444,511	Jan. 13	840	218	54	175
Vandegrift, Theodore F., Noab, assignor to Vandegrift Manufacturing Company, Shelbyville, Ind. Pliers	449,250	Mar. 31	3199	806	54	1762
Vandegrift, Theodore F., assignor to Vandegrift Manufacturing Company, Noab, Ind. Wrench	460,694	Oct. 6	268	65	57	53
Vanderbeek, Abraham. (See Pentz, Albert D., assignor.)						
Vanderburg, Robert B., assignor of one-half to C. Thornburg, Long Beach, Cal. Fruit-gatherer	463,178	Nov. 17	1530	399	57	864
Vanderhoef, George N. (See Manwaring and Vanderhoef.)						
Vanderhoof, O. G. (See Saxton, Thomas G., assignor.)						
Vanderman, William, Willimantic, Conn. Pipe or rod cutter	444,995	Jan. 20	1646	422	54	337

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Vanderman, William, Willimantic, Conn. Pipe-vise	455,136	June 30	3088	786	55	1765
Vanderman, William, Willimantic, Conn. Pipe-vise	455,369	July 7	108	30, 31	56	25
Vandervoort, John R., New York, N. Y. Power-machine	464,807	Dec. 8	1241	310	57	1380
Vandeventer, Roland E., Mount Sterling, Ill. Balanced slide-valve	462,518	Nov. 3	464	113	57	639
Vanduzen, Benjamin C., Winton Place, Ohio, assignor of one-half to E. W. Vanduzen, New-	448,386	Mar. 17	1836	462	54	1486
port, Ky. Gas or gasoline engine				463		
Vanduzen, Benjamin C., Winton Place, Ohio, assignor of one-half to E. W. Vanduzen, New-	448,597	Mar. 17	2161	540	54	1548
port, Ky. Gas-engine				541		
Vanduzen, Ezra W. (See Vanduzen, Benjamin C., assignor.)						
Vanduzen, Ezra W., Newport, Ky. Automatic bell-sounding mechanism	461,458	Oct. 20	1440	362	57	293
Vangorden, John M. (See Carpenter, Clarence E., assignor.)						
Vangorden, John M. (See Carpenter, Clarence E., assignor.) (Reissue.)						
Vanhorn, Joseph E., Henderson Station, Ill. Grain-apron	446,040	Feb. 10	869	211	54	689
Vanier, Francis N., Amesbury, Mass. Two-seated carriage	463,179	Nov. 17	1532	400	57	865
Vanier, Francis N., Amesbury, Mass. Two-seated carriage	463,180	Nov. 17	1533	400	57	865
Vannatta, Elias A., Juniata, Nebr. Wire-reel	446,487	Feb. 17	1620	397	54	947
Vannemann, William C., Anderson, Ind. Anti-friction roller-bearing	458,006	Aug. 18	1779	465	56	824
Vanorman, Oliver, Los Angeles, Cal. Carburetor	457,803	Aug. 18	1434	372	56	820
Vanover, Joseph M., Terre Haute, Ind. Sliding gate	448,466	Mar. 17	1963	493	54	1510
Vansant, John L. (See Clarkson, Alexander R., assignor.)						
Vansize, William B., Plainfield, N. J. Electric railway	461,969	Oct. 27	2322	576	57	467
Vanslyck, Adderley, et al. (See Grant, Daniel, assignor.)						
Varell, Emil O., Philadelphia, Pa. Fruit and vegetable scoop and knife	456,784	July 28	2385	627	56	479
Varick, John B. (See St. Clair, Frank, assignor.)						
Varley, Martin S., Chicago, Ill. Overshoe	449,340	Mar. 31	3365	848	54	1789
Varley, Richard, Jr., Englewood, N. J. Electric-contact protector	449,302	Mar. 31	3280	831	54	1775
Varley, Richard, Jr., Englewood, N. J. Electric time-call	450,390	Apr. 14	1132	277	55	923
Varley, Richard, Jr., Englewood, N. J. Testing insulated wires	464,125	Dec. 1	173	42	57	1170
Varley, Richard, Jr., Englewood, N. J. Relay	464,133	Dec. 1	186	45	57	1172
Varley, Richard, Jr., Englewood, N. J. Electric-circuit closer	464,134	Dec. 1	188	46	57	1173
Varley, Richard, Jr., Englewood, N. J. Electrical testing-instrument	465,809	Dec. 22	2867	734	57	1711
Varney, Charles F., St. Louis, Mo. Automatic sash-lock	462,183	Oct. 27	2649	663	57	529
Varney, William W., Baltimore, Md. Drilling-machine	465,619	Dec. 22	2590	658	57	1656
Varns, Tobias L. (See Michener and Varns.)						
Varwig, Henry. (See La Boiteaux, Frank M., assignor.)						
Vary, Raymond P. E., Woburn, Mass. Gage for saws	449,785	Apr. 7	219	55, 56	55	44
Vary, William L., et al. (See Watkins, Edwin D., assignor.)						
Vasseur, Augustin, Boston, Mass. Skirt-form	457,062	Aug. 4	208	50	56	573
Vattier, John L., Kennedy, Ohio. Envelope	464,208	Dec. 1	318	77	57	1193
Vauclain, Samuel M., Philadelphia, Pa. Die for forging wheels	462,605	Nov. 3	603	149	57	667
Vauclain, Samuel M., Philadelphia, Pa. Forged wheel and making the same	462,606	Nov. 3	605	150	57	667
Vaughan, Aaron C., Shanes Crossing, Ohio. Nut-lock	449,983	Apr. 7	502	125	55	97
Vaughan, James H., et al. (See Weeden, Charles L., assignor.)						
Vaughan, Lewis, Summit City, Pa. Sucker-rod elevator	456,071	July 14	1221	321	56	240
Vaughan, Madena M., et al. (See Trenholme, Charles W., assignor.)						
Vaughen, Samuel W. (See Fronheiser and Vaughen.)						
Vaughn, Augustus W., Menlo, assignor to F. H. Kingsbury, Creston, Iowa. Printing-	453,988	June 9	1224	318	55	1390
machine						
Vaughn, Charles A., Brooklyn, N. Y., assignor of one-half to F. J. Schmitt & Co., Newark,	459,092	Sept. 8	852	206	56	1237
N. J. Power-hammer						
Vaughn, Erastus H., et al. (See Walsh, John W., assignor.)						
Vaughn, Joseph W., Salem, Mass., assignor to Vaughn Morocco Machine Company, Port-	444,164	Jan. 6	305	73	54	62
land, Me. Machine for whitening or working leather						
Vaughn, Joseph W., Salem, Mass., assignor to Vaughn Morocco Machine Company, Port-	444,172	Jan. 6	319	77	54	65
land, Me. Leather-boarding machine						
Vaughn, Joseph W., Salem, Mass., assignor to Vaughn Morocco Machine Company, Port-	444,173	Jan. 6	321	77, 78	54	65
land, Me. Leather-working machine						
Vaughn Morocco Machine Company. (See Vaughn, Joseph W., assignor.)						
Vaughn, Thomas F. (See McAuley, John E., assignor.)						
Vavasseur, Josiah, London, assignor to W. G. Armstrong, Mitchell & Co., Limited, New-	450,829	Apr. 21	1839	446	55	373
castle, England. Mounting for guns				447		
Vause, Charles H., New York, N. Y. Letter-box	445,867	Feb. 3	583	143	54	626
Vavasseur, Josiah, London, assignor to W. G. Armstrong, Mitchell & Co., Limited, New-	451,864	May 5	631	156	55	699
castle-upon-Tyne, England. Quick-firing gun				157		
Fawter, Charles E. (See Tompkins, Stonewall, assignor.)				158		
Veesenmeyer, George. (See Finfrock and Veesenmeyer.)						
Vega, Marino, assignor to Scovill & Adams Company, New York, N. Y. Photographic	452,926	May 26	2390	604	55	1052
camera				605		
Verity, John. (See Hall and Verity.)						
Vellines, Benton H., assignor to Norfolk, Virginia, Peanut Company, Norfolk, Va. Ma-	463,976	Nov. 24	2800	726	57	1115
chine for facilitating grade separation of nuts or grain				706		
Vellines, Benton H., assignor to Norfolk, Virginia, Peanut Company, Norfolk, Va. Re-	464,468	Dec. 1	706	172	57	1269
volving cleaner for nuts, grain, &c.				172		
Velocity Manufacturing Company. (See Goodrich, Harry C., assignor.)						
Venner, William G., Hamburg, assignor of one-third to S. Newman, Buffalo, N. Y. Gar-	458,263	Aug. 25	2190	535	56	969
ment-measuring jacket				535		
Venters, George W. (See Tripp and Venters.)						
Ventzki, August J., Grandenz, Germany. Closed high-pressure hot-air motor	459,501	Sept. 15	1506	377	56	1374
Venneth, Wilhelm, Darmstadt, Germany. Evaporating apparatus	464,166	Dec. 1	241	59	57	1181
Vermont Farm Machine Company. (See Kimball, Perley L., assignor.)						
Vermont Farm Machine Company. (See Tabor, Lorin R., assignor.)						
Vermont Marble Company. (See Edson, James H., assignor.)						
Vernay, Albert H., assignor of one-half to D. Conroy, Baltimore, Md. Thill-holder	459,950	Sept. 22	2227	559	56	1517
Verner Vrench Car Mover and Power Manufacturing Company. (See Grencamyer, Clar-				559		
ence V., assignor.)						
Vernon, Francis J., Brooklyn, N. Y. Temporary binder	463,323	Nov. 17	1755	460	57	907
Vernon, James, Newton-Stewart, Scotland. Manufacture of horseshoes	464,209	Dec. 1	319	77, 78	57	1194
Vernon, Miles, Brooklyn, N. Y. Fastening for book-covers	463,014	Nov. 10	1253	326	57	803
Vernon, Nathan W., assignor of one-half to D. Henry, Corning, Kans. Flaw-bolt holder	447,706	Mar. 3	686	173	54	1248
Verstraete, Edmond, St. Louis, Mo. Speed recorder and register	454,391	June 16	1813	473	55	1509
Verstraete, Edmond, St. Louis, Mo. Attachment for poles for electric wires	456,683	July 28	2208	585	56	447
Verstraete, Edmond, assignor of one-half to P. M. Kling, St. Louis, Mo. Trolley for rail-	454,532	June 23	2043	528	55	1561
way-cars				528		

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Verstraete, Edmond, assignor of one-half to P. M. Kling, St. Louis, Mo. Electric car-brake.	457,016	Aug. 4	129	31, 32	56	558
Verstraete, Edmond, assignor of one-half to P. M. Kling, St. Louis, Mo. Electric car-brake.	465,034	Dec. 15	1622	{ 412 413 }	57	1464
Very, Alpha O., Boston, Mass. Presser-foot for sewing-machines	451,347	Apr. 28	2654	657	55	539
Vesian, John S. E. de. (See Tyler and de Vesian.)						
Vesterdahl, Karl E., New York, N. Y. Cut-off gear for steam-engines	459,568	Sept. 15	1616	{ 405 406 }	56	1394
Vibro Telegraph Company. (See Sloan, Hughes, and Reed, assignors.)						
Vick, William W. (See Milburn, James A., assignor.)						
Vickers, G. W. (See Randall, Don W., assignor.)						
Vickery, Charles H., Attica, N. Y. Paper sack	444,029	Jan. 6	72	19	54	17
Vickery, Hezekiah, Willacoochee, Ga. Guano-distributor and seed-planter	465,149	Dec. 15	1824	462	57	1500
Vickery, William H. (See Powell and Vickery.)						
Viereck, John G., Jr. (See Coffelt and Viereck.)						
Vieregg, Henry, Grand Island, Nebr. Fire-escape	450,899	Apr. 21	1943	477	55	392
Vieregg, Henry, Grand Island, Nebr. Fire-escape	456,388	July 21	1728	457	56	346
Vierengel, Matthew, assignor to R. Gair, Brooklyn, N. Y. Machine for making plaited boxes or similar articles	463,849	Nov. 24	2590	{ 674 675 }	57	1076
Vieth, Henry J. (See Connley and Vieth.)						
Vigreux, Léon, Paris, France. Apparatus for triturating straw, &c., for cattle	454,094	June 16	1375	{ 358 359 }	55	1425
Vilaseca y Velasco, Arturo, Barcelona, Spain. Game-counter	447,454	Mar. 3	303	76	54	1175
Vilén, Nils, Gothenburg, Sweden. Opera-chair	461,225	Oct. 13	1062	268	57	211
Viles, Frank T., Hyde Park, and N. Young, Boston, Mass. Switch-board for telegraph-lines	454,584	June 23	2124	548	55	1576
Villamor, Manuel, Merida, Mexico. Machine for cleaning vegetable fiber	464,782	Dec. 8	1202	{ 298 299 }	57	1372
Villaret, Gustave E., and V. E. Rondel, Philadelphia, Pa. Incandescent-electric-lamp fixture	465,684	Dec. 22	2689	686	57	1675
Villavaso, William N., New Orleans, La. Molasses-mixer	444,470	Jan. 13	767	200	54	160
Villiers-Stead, Frank, and E. R. Hedgman, London, England, assignors to Knight Brothers, trustees, New York, N. Y. Telephone call-box	451,143	Apr. 28	2321	576	55	475
Villon, Jules, Lima, Peru. Jewel-support for balance-staffs of watches	448,896	Mar. 24	2651	665	54	1648
Vinal, John P., Providence, R. I. Water-wheel	465,439	Dec. 15	2285	586	57	1589
Vincent, Charles A., Paris, France. Vehicle running-gear	451,144	Apr. 28	2325	{ 576 577 }	55	476
Vincent, D. Howard. (See Fox, John H., assignor.)						
Vincent, David P., Oil City, Pa. Bicycle	455,673	July 7	602	{ 158 159 }	56	117
Vincent, George P., assignor of two-thirds to F. Sheldon, Lansingburg, and F. W. Horrobin, Cohoes, N. Y. Hydrant	463,015	Nov. 10	1254	326	57	803
Vincent, George P., assignor of two-thirds to F. Sheldon, Lansingburg, and F. W. Horrobin, Cohoes, N. Y. Straight-way valve	463,016	Nov. 10	1256	326	57	804
Vinett, Alexander. (See McCulloch, Archibald, assignor.)						
Vinson, Lewis H. (See Vinson, Samuel H., assignor.)						
Vinson, Samuel H., assignor of one-half to L. H. Vinson, Dayton, Ohio. Drive-chain link	465,612	Dec. 22	2579	656	57	1654
Vinton, John F., assignor of one-half to J. S. Ham, Spokane Falls, Wash. Tramway	453,095	May 26	2678	675	55	1109
Vinton, John H., Boston, Mass., assignor to Heaton-Peninsular Button Fastener Company, Providence, R. I. Button-fastener	446,089	Feb. 10	946	232	54	703
Vinton, John H., Boston, Mass., assignor to Heaton Peninsular Button Fastener Company, Providence, R. I. Button-setting machine	459,481	Sept. 15	1476	371	56	1368
Vinton, John H., Boston, Mass., assignor to Heaton Peninsular Button Fastener Company, Providence, R. I. Button-setting machine	459,482	Sept. 15	1479	371	56	1369
Vint, Robert, and L. Goldberg, San Francisco, Cal. Cigar stand and holder	457,037	Aug. 4	157	38	56	563
Viol, Reinhard, Frankfurt-on-the-Main, Germany, assignor, by mesne assignments, to Lewis & Fowler Girder-Rail Company, Brooklyn, N. Y. Joint or other fastening for tramway-rails	449,093	Mar. 24	2945	746	54	1706
Violet, William H., Grand Junction, Colo. Pool-table	451,536	May 5	137	34, 35	55	605
Violet, William H., Grand Junction, Colo. Car-coupling	461,299	Oct. 13	1170	298	57	234
Viollet, Emile, Paris, France. Kneading-machine	448,826	Mar. 24	2537	{ 636 637 }	54	1627
Viscardi, Frederick J., Great Barrington, Mass. Sash for hot-houses, skylights, &c	462,783	Nov. 10	889	233	57	731
Vite, Hermann, Berlin, Germany. Photographic stand	452,859	May 26	2279	572	55	1031
Vivian, John H. (See Ford, Albert J., assignor.)						
Vivian, John H., Chicago, Ill. Adjustable holder for inking-rollers of printing-presses	457,139	Aug. 4	311	82	56	593
Voelker, George W., Woonsocket, R. I. Cloth-pressing machine	445,723	Feb. 3	340	90	54	580
Voelker, George W., Woonsocket, R. I. Cloth-pressing machine	453,028	May 26	2560	648	55	1085
Voelkner, Henry A., Detroit, Mich. Medical induction-coil	456,746	July 28	2328	614	56	468
Vogel, Charles, San Francisco, Cal. Three-rail track for cable railways	450,116	Apr. 7	690	175	55	135
Vogel, Charles, San Francisco, Cal. Cable-railway crossing	450,117	Apr. 7	691	175	55	135
Vogel, Charles, San Francisco, Cal. Curve for cable railways	450,118	Apr. 7	692	175	55	135
Vogel, Wilhelm, assignor to M. Steinberg, Cologne, Germany. Pocket-knife	448,168	Mar. 10	1447	370	54	1403
Vogelgesang, Max, assignor of one-half to E. Stände, Hoboken, N. J. Apparatus for throwing dice	456,091	July 14	1244	327	56	245
Vogler, William, Somerville, Mass. Insulator	445,008	Jan. 20	1665	427	54	341
Vogler, William, Somerville, Mass. Trolley-wire clamp or support	445,103	Jan. 20	1809	467	54	369
Vogler, William, Somerville, Mass. Garment-stand	445,208	Jan. 27	1981	511	54	411
Vogler, William, Somerville, Mass. Electric conductor	460,606	Oct. 6	91	25	57	20
Vogler, William, Somerville, Mass. Conduit for electric wires	460,607	Oct. 6	92	25	57	20
Vogler, William, Somerville, assignor to C. A. Morss, Boston, Mass. Dress-form	455,076	June 30	2996	762	55	1748
Vogler, William, Somerville, assignor to C. A. Morss, Boston, Mass. Dress-form	463,346	Nov. 17	1795	470	57	914
Vogt, Axel S., Altoona, Pa. Engine cross-head	450,830	Apr. 21	1842	448	55	373
Vogt, Axel S., Altoona, Pa., assignor to C. W. Roepper, Alliance, Ohio. Brake-shoe	444,174	Jan. 6	323	78	54	66
Vogt, George C. (See Rives, George P. G. and C. G., assignors.)						
Vogt, Henry, and R. H. Burns, Brooklyn, N. Y. Steam-boiler	449,922	Apr. 7	416	104	55	81
Vogt, Louis J. (See Klippert, Vogt, and Weiland.)						
Voight, Henry G. (See Burgess and Voight.)						
Voigt, Ferdinand, Bockenheim, near Frankfurt-on-the-Main, Germany. Lamp-socket	463,763	Nov. 24	2465	644	57	1051
Voigtmann, Frank. (See Frommhold and Voigtmann.)						
Voisard, Louis F., assignor of one-half to W. J. Picco, Canton, Ohio. Duplex steam-pump	460,900	Oct. 6	566	143	37	111
Volk, Jacob. (See McCulloch and Volk.)						
Volkman, John H. (See Bergmann, Theodor, assignor.)						
Voll, Charles H., assignor of one-half to O. Fischer, San Francisco, Cal. Envelope-fastener	444,932	Jan. 20	1549	{ 396 397 }	54	318

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Von Auw, Alwin, assignor to Liebenroth, Von Anw & Co., New York, N. Y. Making spring-backs for books	461,653	Oct. 20	1809	446	57	360
Von Brandis, Adolph, Milwaukee, Wis. Perforating-stamp	447,089	Feb. 24	2589	642	54	1041
Von Brandis, Adolph, and H. Davidson, Milwaukee, Wis.; said Von Brandis assignor to said Davidson. Door-operating device	447,090	Feb. 24	2591	642	54	1042
Von Culin, Clayton and E., Delaware City, Del. Incubator	446,090	Feb. 10	947	232	54	703
Von Culin, Clayton and E., Delaware City, Del. Incubator. (Reissue)	11,194	Sept. 22	2456	614	56	1561
Von Culin, Everett. (See Von Culin, Clayton and E.)						
Von Culin, Everett. (See Von Culin, Clayton and E.) (Reissue.)						
Von Oven, John, and C. F. Panknin, Charleston, S. C. Moss-cleaning machine	462,830	Nov. 10	971	252	57	748
Vonderlehr, Fredreck. (See Emmerich and Vonderlehr.)						
Vorderbrugge, Charles H., Cutler, Ill. Washing-machine	457,017	Aug. 4	130	32	56	558
Vornbrock, Frederick, assignor to Bardwell, Anderson & Co., Chelsea, Mass. Card-table	463,654	Nov. 24	2300	604	57	1021
Vorstman, John H., and E. F. Niedecken, Milwaukee, Wis. Saw-mill-carriage offset	462,286	Nov. 3	105	26	57	571
Vortmann, Georg. (See Messinger and Vortmann.)						
Vosburgh, Jacob, assignor to N. O. Nelson Manufacturing Company, St. Louis, Mo. Valve for water-closets or other constructions	453,069	May 26	2631	664	55	1099
Vose, Ambrose S., East Boston, Mass. Sole-trimming machine	452,027	May 12	906	232	55	758
Vose, Ambrose S., Boston, Mass. Rotary trimmer	457,386	Aug. 11	779	200	56	685
Vose, Ambrose S., Boston, Mass. Tool-grinding machine	457,387	Aug. 11	780	200	56	685
Voss, Frederick, Buffalo, N. Y. Seat attachment for bicycles	450,712	Apr. 21	1654	398	55	338
Vose, George L. (See Hudson, Thomas C., assignor.)						
Votey, Edwin S., and W. D. Wood, Detroit, Mich. Wind-chest for pipe-organs	462,784	Nov. 10	890	233	57	732
Vowles, Joseph. (See Wells and Vowles.)						
Vowles, Mary, et al. (See Wells and Vowles, assignors.)						
Vuillier, Aimé, Brooklyn, N. Y. Eccentric	447,386	Mar. 3	182	48	54	1152
Vulcan Electric Company. (See Robinson, Martin W., assignor.)						
Vulcan Iron Works Company. (See Ziegler, John, assignor.)						
Vulcan Patent Smoke Consumer and Fuel Economizer Corporation. (See Chubb, William J., assignor.)						
Vulcan Patent Smoke Consumer and Fuel Economizer Corporation. (See Moffatt and Stut-ford, assignors.)						
Vulcanite Manufacturing Company. (See Niles, William F. and J., assignors.)						
Vutech, Frank. (See Kopacek and Vutech.)						
W. F. & John Barnes Company. (See Barnes, William F., assignor.)						
W. S. Reed Toy Company. (See Whitney, William B., assignor.)						
W. W. Kimball Company. (See Hedgeland, Frederick W., assignor.)						
Wachs, Edward H. (See Johanson, Karl A., assignor.)						
Wachter, Henry, Columbus, Ohio. Game-board	447,851	Mar. 10	950	238	54	1305
Wachter, Wesley N., assignor of one-half to T. Reynolds, Springfield, Ohio. Churn	447,852	Mar. 10	952	238	54	1305
Wackernagel, Moritz. (See Richter, Hermann J., assignor.)						
Wada, George Y. S., San Francisco, Cal. Figure toy	463,927	Nov. 24	2728	708	57	1101
Waddell-Entz Electric Company. (See Collins, William F., assignor.)						
Waddell-Entz Electric Company. (See Entz, Justus B., assignor.)						
Waddell-Entz Electric Company. (See Entz and Phillips, assignors.)						
Waddell-Entz Electric Company. (See Waddell and Entz, assignors.)						
Waddell, Harvey, Chicago, Ill. Folding-bed support	447,589	Mar. 3	522	127	54	1215
Waddell, Montgomery, and J. B. Entz, New York, N. Y. Electric locomotive	444,512	Jan. 13	841	218	54	175
Waddell, Montgomery, and J. B. Entz, assignors to Waddell-Entz Electric Company, New York, N. Y. Secondary battery	461,858	Oct. 27	2138	527	57	431
Waddell, William H., Lexington, Va. Sectional lamp-chimney	444,864	Jan. 20	1427	371	54	295
Waddill, Andy M., Jr., Thomastown, La. Insect-powder distributor	445,482	Jan. 27	2376	618	54	489
Waddill, Walter W. (See Fontaine, Patrick H., assignor.)						
Wade, C., et al. (See Ringo, Birt, assignor.)						
Wade, C. C., et al. (See De Berry, William G., assignor.)						
Wade, Charles G. (See Kinney, Brown, and Wade.)						
Wade, Davis & Co. (See Wilson, Henry U., assignor.)						
Wade, Frank K., et al. (See Dye, William H., assignor.)						
Wade, Harry R. (See King, John, assignor.)						
Wade, James J., Chicago, Ill. Sewer-flush check-valve	447,387	Mar. 3	183	49	54	1153
Wade, James J., Chicago, Ill. Hand-basin	456,176	July 21	1375	365	56	281
Wade, James J., Chicago, Ill. Basin	459,058	Sept. 8	804	194	56	1229
Wade, John W., Lamelle, Ill. Combined hog trap and crate	444,117	Jan. 6	219	53	54	45
Wade, W. T., et al. (See De Berry, William G., assignor.)						
Wade, Walter R., Brooklyn, N. Y. Degumming and preparing fibers	449,454	Mar. 31	3568	.....	54	1828
Wade, Walter R., Brooklyn, N. Y. Degumming and preparing fibers	449,455	Mar. 31	3569	.....	54	1828
Wadleigh, Percival V., West Superior, Wis. Broadcast seed-sower	462,341	Nov. 3	190	48	57	587
Wadsworth, Edwin H. (See Mellink and Wadsworth.)						
Wadsworth, Howland & Co. (See Graves, Abbott, assignor.)						
Wadsworth, John W., Allegheny, assignor of one-half to S. S. D. Thompson, Pittsburg, Pa. Pump	445,577	Feb. 3	89	21	54	529
Wadsworth, John W., Allegheny, assignor of one-half to S. S. D. Thompson, Pittsburg, Pa. Vent	465,898	Dec. 29	3027	774	57	1751
Wadsworth, S. W., et al. (See Dunn, John P., assignor.)						
Waeber, Gustavus A. (See Reiset and Waeber.)						
Waffenfabrik, Mauser. (See Mauser, Paul, assignor.)						
Wagandt, Charles L., Baltimore, Md. Soldering-tool	462,607	Nov. 3	607	150	57	668
Wagener, John L., Oakland, Tenn. Cultivator	466,203	Dec. 29	3525	901	57	1846
Wagg, Solomon R., Appleton, Wis. Paper-pulp boiler	446,041	Feb. 10	871	211	54	689
Wagg, Solomon R., Appleton, Wis. Pulp refining and dressing engine	447,853	Mar. 10	953	212	54	1305
Wagnalls, Adam W., et al. (See Fitch, Henry, assignor.)						
Wagner, Adolphus H. (See Fitzgerald, Charles H., assignor.)						
Wagner, Carl A., assignor of fifty-one one-hundredths to S. Lyons, Danville, Ky. Wood-turning lathe	455,780	July 14	785	206	56	160
Wagner, Daniel, Unity, Ohio. Newspaper-holder	445,435	Jan. 27	2310	599	54	477
Wagner, Edward W., San José, Cal. Pessary	444,513	Jan. 13	842	219	54	176
Wagner, Ernst, Jr., Manitowoc, Wis. Heater for cheese-vats	455,077	June 30	2997	763	55	1748
Wagner, Frank C., Ann Arbor, Mich. Electrical measuring instrument	453,681	June 9	789	203	55	1305

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Wagner, Franz X., New York, N. Y. Type-writing machine	454,692	June 23	2299	589 590 591	55	1607
Wagner, Henry J., Dayton, Mo. Corn-planter	444,030	Jan. 6	73	20	54	18
Wagner, Jacob K., Kalamazoo, Mich. Surface cattle-guard	448,804	Mar. 24	2507	628	54	1621
Wagner, John, Detroit, Mich. Baker's oven	455,551	July 7	405	106 107	56	79
Wagner, John L., Terre Haute, Ind. Carpet-cleaning machine	445,209	Jan. 27	1981	512	54	411
Wagner, John W., Dalton, Ohio. Car-coupling	454,550	June 23	2061	533	55	1564
Wagner, Louis, assignor of one-half to J. Marr, Baltimore, Md. Safety device for mills	459,352	Sept. 8	1264	311 312	56	1319
Wagner, P. A. (See Barton, Delbert E., assignor.)						
Wagner, S. C., <i>et al.</i> (See Kyle, Augustus G. and E. J., assignors.)						
Wagner, S. Harrison. (See Elfering, John H., assignor.)						
Wagner, Samuel K., and H. T. Bennett, Latrobe, Pa. Feed-water regulator	452,975	May 26	2479	627	55	1070
Wagoner, Edward E., Hagerstown, Md. Miter-box	451,089	Apr. 28	2231	552 553	55	458
Wahl, William F., Atlantic City, N. J. Overshoe	447,091	Feb. 24	2592	643	54	1042
Wahlert, Henry A., assignor of two-thirds to C. C. Higham and E. L. Andreon, St. Louis, Mo. Paper-file	465,400	Dec. 15	2228	572	57	1577
Wahlin, Adolph, Stockholm, Sweden, assignor to R. D. Harris, New York, N. Y. Centrifugal separating apparatus	447,530	Mar. 3	437	107	54	1200
Wahlin, Adolph, Stockholm, Sweden, assignor to R. D. Harris, New York, N. Y. Centrifugal butter-extractor	450,391	Apr. 14	1134	277	55	223
Wahlin, Adolph, C. J. Lundström, Stockholm, Sweden, and T. Collins, Winchester, N. H., assignors to R. D. Harris, New York, N. Y. Extractor-churn	446,651	Feb. 17	1868	463	54	895
Wahlquist, Charles J., Fort Assinaboine, Mont. Magazine-gun	450,900	Apr. 21	1945	477 478	55	393
Wainwright, Harry S., Ashford, England. Curtain-fixture	460,937	Oct. 6	621	159	57	122
Wainwright Manufacturing Company of Massachusetts. (See Fife, John F., assignor.)						
Wait, John H., Portsmouth, Ohio. Stench-trap	451,537	May 5	140	35	55	606
Wait, Walter S. (See Emerson, Charles W., assignor.)						
Waite, Annie L., administratrix. (See Waite, Arthur L.)						
Waite, Arthur L., deceased, Baraboo, Wis.; A. L. Waite, administratrix. Attachment for air-brake systems	463,085	Nov. 10	1367	354	57	825
Waite, Charles N. (See Le Sneur, Ernest A., assignor.)						
Waite, Charles N., Newton, Mass. Manufacturing lactic acid	455,078	June 30	2998	.....	55	1748
Waite, Frank J., Leadville, Colo. Pillow-sham holder	451,538	May 5	141	35	55	606
Waite, Gilman. (See French, Erastus S., assignor.)						
Waite, Henry E., New York, N. Y. Rheostat	459,800	Sept. 22	1990	500	56	1472
Waite, James F., assignor of one-half to W. Hollis, San Francisco, Cal. Brake for cable cars	446,305	Feb. 10	1332	324	54	775
Wakefield, James A., and T. M. Nelson, Chicago, Ill. Turning corners of coffer-dams or piers	453,331	June 2	236	63	55	1193
Wakefield, John E., Worcester, Mass. Pipe-wrench	454,893	June 30	2635	676	55	1677
Wakefield Rattan Company. (See Henry, Fred H., assignor.)						
Wakefield, William O. (See Thomson and Wakefield.)						
Wakefield, William O., Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Controlling mechanism for elevators	454,095	June 16	1377	359	55	1425
Wakely, William, Taunton, Mass. Method of and apparatus for reducing metal	449,145	Mar. 31	3030	766 767	54	1730
Wakeman, Frank M., Nantucket, Mass. Pendulum adjustment for clocks	449,016	Mar. 24	2225	716	54	1682
Wakeman, Lewis F., Shreveport, La. Rotary lamp-shade	451,215	Apr. 28	2450	605	55	498
Wakeman, Lewis F., Shreveport, La. Adjustable landside	451,216	Apr. 28	2451	605	55	499
Walcott, Charles D., Russia, N. Y. Railway-spike	461,300	Oct. 13	1171	298	57	234
Walcott, Jabez E., Providence, R. I. Method of and apparatus for covering electric wires	450,839	Apr. 21	1853	451	55	375
Waldecker, Henry C., assignor to W. S. Pierce, Austin, Minn., S. H. Pierce, Hudson, Wis., and H. F. Batchelor, Miles City, Mont. Electric-arc lamp	465,685	Dec. 22	2690	686	57	1675
Walden, Joseph, Orange, N. J. Boot-pull	453,682	June 9	790	203	55	1305
Waldo, Charles S. (See Snow, William H., assignor.)						
Waldorp, Richard W., Norfolk, Va. Window-head	458,082	Aug. 18	1881	490	56	905
Waldrip, John C., Greenup, Ill. Sash-fastener	464,445	Dec. 1	672	164	57	1263
Waldron, Asa T., assignor to Mohawk and Hudson Manufacturing Company, Waterford, N. Y. Valve	447,590	Mar. 3	523	128	54	1215
Waldron, Charles F., assignor of one-half to C. J. Pillsbury and W. J. Litchfield, Boston, Mass. Separator for the plates of secondary batteries	463,879	Nov. 24	2650	691	57	1086
Waldron, George E., <i>et al.</i> (See Boles, Warren H., assignor.)						
Waldron, John, and C. H. Sprout, Muncy, Pa. Feeding mechanism for cotton-seed-delinting machines	458,435	Aug. 25	2469	601	56	1022
Waldron, Margaret I., St. Joseph, Mo. Making ornaments, &c., from hair and composition for use in the same	449,750	Apr. 7	164	.....	55	33
Waldron & Sprout. (See Ring, Henry H., assignor.)						
Waldron, Thomas, Nevada, Mo. Washing-machine	454,509	June 23	2005	520	55	1554
Waldrop, Richard W., Norfolk, Va. Ventilating device for railway-cars	447,216	Feb. 24	2831	702	54	1087
Waldschmidt, Edward, assignor to Watsontown Boot and Shoe Company, Watsontown, Pa. Shoe-upper	447,263	Feb. 24	2908	723	54	1103
Waldurff, Eugene C., Buffalo, N. Y. Automatic cut-off	464,112	Dec. 1	157	39	57	1167
Waldvogel, George J., Toledo, Ohio. Adjustable seat for stools and chairs	459,161	Sept. 8	969	235	56	1261
Walker, Addison W., assignor to Lovell Manufacturing Company, Limited, Erie, Pa. Clothes-wringer	465,419	Dec. 15	2253	578	57	1582
Walker, Albert H., trustee. (See Claussen, Edward E., assignor.)						
Walker, Albert H., trustee. (See Lorenz, William A., assignor.)						
Walker, Albert H., trustee. (See Lorenz and Claussen, assignors.)						
Walker, Alexander, assignor of two-thirds to T. and W. Thompson, What Cheer, Iowa. Post-drill frame	463,469	Nov. 17	1989	521	57	953
Walker, Arthur W. (See Walker, George W. and A. W.)						
Walker, Arthur W., Malden, Mass. Cooking-stove	447,548	Mar. 3	461	113	54	1204
Walker Automatic Car Coupler Manufacturing Company. (See Walker, William J., assignor.)						
Walker, Charles E., <i>et al.</i> (See Allen, Albert F., assignor.)						
Walker, Charles W., Strang, Neb. Type-writing machine	451,629	May 5	286	69,70	55	633
Walker, Edward A., Philadelphia, Pa. Belt-shifter for planing-machines	454,958	June 30	2765	705	55	1702
Walker, Edward A., Philadelphia, Pa. Feed-screw and nut	454,959	June 30	2767	705	55	1702

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Walker, Edward A., Philadelphia, Pa. Frictional feed-clutch	454,960	June 30	2768	705	55	1702
Walker, Edwin, Erie, Pa. Cork-puller	452,625	May 19	1912	480	55	951
Walker, Edwin, Erie, Pa. Cigar-cutter	452,626	May 19	1913	481	55	951
Walker, Frank, Los Angeles, Cal. Window-screen	448,467	Mar. 17	1964	494	54	1510
Walker, Frank, Los Angeles, Cal. Sewer man-hole	450,878	Apr. 21	1919	471	55	388
Walker, Frank, Los Angeles, assignor of one-half to G. M. Perine, San Francisco, Cal. Disintegrating-furnace	464,642	Dec. 8	972	242	57	1331
Walker, Freeman A. (See Murray, John A., assignor.)						
Walker, Gabriel M., Macon City, Mo. Gearing for washing-machines, churns, &c.	451,091	Apr. 28	2235	553	55	459
Walker, George, Jersey City, N. J. Paint	451,297	Apr. 28	2588	.....	55	526
Walker, George L., and I. W. Harlow, assignors to Plymouth Foundry Company, Plymouth, Mass. Grate for stoves or furnaces	460,710	Oct. 6	291	71	57	57
Walker, George W., Malden, Mass. Hot-air furnace	451,962	May 12	800	{ 202 203 }	55	738
Walker, George W. and A. W., Malden, Mass. Furnace	458,245	Aug. 25	2147	526	56	962
Walker, Gerry. (See Perry, Francis H., assignor.)						
Walker, H. C. (See Flatau, Louis S., assignor.) (Reissue.)						
Walker, Henry A., Denver, Colo. Self-closing faucet	444,514	Jan. 13	843	219	54	176
Walker, Horace G., Somerset, Pa. Horse hay-rake	459,617	Sept. 15	1698	426	56	1409
Walker, Isaac, Philadelphia, Pa. Cop-spindle for reels	447,800	Mar. 10	871	216	54	1290
Walker, Isaac C., et al. (See Smith and Acker, assignors.)						
Walker, James, London, England. Rod-packing	447,170	Feb. 24	2748	680	54	1070
Walker, James C., Dunnegan, Mo. Box-fastener	463,347	Nov. 17	1796	470	57	914
Walker, James D. (See Gilmour, George H., assignor.)						
Walker, John. (See Thompson, William F., assignor.) (Reissue.)						
Walker, John, Cleveland, Ohio. Lathe and planer attachment	449,392	Mar. 31	3457	870	54	1807
Walker, John, Cleveland, Ohio. Boring attachment for lathes	451,092	Apr. 28	2236	553	55	459
Walker, John, Cleveland, Ohio. Driving mechanism for cable railways	454,894	June 30	2638	{ 676 677 }	55	1677
Walker, John, Cleveland, Ohio. Driving mechanism for cable railways	460,794	Oct. 6	411	100	57	81
Walker, John, Cleveland, Ohio. Cupola-furnace	465,006	Dec. 15	1574	400	57	1455
Walker, John B., Corvallis, Oreg. Railway-rail joint	446,763	Feb. 17	2040	508	54	929
Walker, John H. (See Miller and Walker.)						
Walker, Joseph, Clark's Green, Pa. Steam-pipe coupling	465,899	Dec. 29	3028	774	57	1751
Walker, Joseph, assignor of one-half to R. C. Jackson, Trenton, N. J. Washer for spinning and twisting machines	447,388	Mar. 3	185	49	54	1153
Walker, Lewis J. (See Hanna and Walker.)						
Walker, Moses E., assignor of two-thirds to J. C. Bowe and Hey, Wilkinson & Parsons, Syracuse, N. Y. Cartridge	458,026	Aug. 18	1805	471	56	889
Walker, Orlando O., assignor of one-half to J. H. Snyder, Bedford, Iowa. Cave	465,900	Dec. 29	3029	775	57	1751
Walker, Robert L., Boston, Mass. Furnace	454,310	June 16	1691	442	55	1487
Walker, Simeon T., Olathe, Kans. Music-holder	452,683	May 19	1998	500	55	969
Walker, Stephen A., Hazle Dell, Tex. Ant-trap	464,535	Dec. 8	817	201	57	1300
Walker, Thomas, Warren, Me. Take-up device for spindle-bands	449,810	Apr. 7	255	65	55	51
Walker, William, Scandia, Kans. Seal-lock	448,700	Mar. 24	2341	587	54	1590
Walker, William, Scandia, Kans. Coal or grain bin	450,267	Apr. 14	930	230	55	185
Walker, William, Scandia, Kans. Weed and grass cutter	461,459	Oct. 20	1443	363	57	294
Walker, William A., Erie, Pa. Means for equalizing the pressure of gas in gas service-pipes	455,913	July 14	990	258	56	198
Walker, William J. (See Detrich and Walker.)						
Walker, William J., St. Louis, Mo. Car-coupling	446,239	Feb. 10	1227	300	54	755
Walker, William J., St. Louis, Mo. Car-coupling	452,291	May 26	2335	590	55	1042
Walker, William J., St. Louis, Mo., assignor to Walker Automatic Car Coupler Manufacturing Company, East St. Louis, Ill. Car-coupling	465,300	Dec. 15	2058	526	57	1545
Walker, William R., Sabula, Iowa. Land roller	446,306	Feb. 10	1334	324	54	776
Walker, William T., Lynchburg, Va. Combined invalid and operating bed	451,348	Apr. 28	2655	658	55	539
Walker, William Z. (See Patterson and Walker.)						
Walkie, Jennie, Chicago, Ill. Tailor's measure	452,090	May 12	1035	{ 262 263 }	55	777
Wall, John, Connorsville, Ind. Clinical thermometer	446,140	Feb. 10	1033	254	54	719
Wall, Thomas. (See Lindner, Henry, assignor.)						
Wall, William B., M. S. Jones, Tustin, and A. D. Bishop, Orange, Cal. Fumigating trees and other plants	445,342	Jan. 27	2179	.....	54	451
Wall, William E., and J. W. Haddick, Grenada, Miss. Car-coupling	457,626	Aug. 11	1146	293	56	755
Wallace, Casper D., assignor to C. W. Seamans, E. R. Barron, and D. C. Roundy, executors, Brooklyn, N. Y. Die for making type-writer type-bars	461,100	Oct. 13	852	220	57	171
Wallace, Henry, assignor of one-half to O. T. Merkle, Paris, Ill. Axle spindle and box ..	461,226	Oct. 13	1063	269	57	212
Wallace, Jacob B. (See Stidham and Wallace.)						
Wallace, James T., and W. D. Holleman, Gould, Tex. Fanning-machine	453,453	June 2	443	114	55	1232
Wallace, John, Lone Rock, Wis. Cheese-cutter	465,901	Dec. 29	3030	775	57	1752
Wallace, John B. (See Ewing, Reuben H., assignor.)						
Wallace, John H., San Francisco, Cal. Switch-stand	449,017	Mar. 24	2826	716	54	1682
Wallace, John R. (See Chalmers and Wallace.)						
Wallace, John S., Nelsonville, Ohio. Hood for fire-places	462,520	Nov. 3	468	114	57	640
Wallace, Lewis, Crawfordsville, Ind. Fishing-rod	460,272	Sept. 29	2723	{ 678 679 }	56	1619
Wallace, Lewis, Crawfordsville, Ind. Rail-coupler for railways	460,273	Sept. 29	2725	679	56	1620
Wallace Manufacturing Company. (See Cunningham, William R., assignor.)						
Wallace & Sons. (See Bohner, Joseph E., assignor.)						
Wallace & Sons. (See Richardson, Henry D., assignor.)						
Wallace, William H., Jr., Philadelphia, Pa. Awning	458,875	Sept. 1	522	127	56	1165
Wallace, William W., and R. C. Penfield, assignors to J. W. Penfield & Son, Willoughby, Ohio. Steam brick-machine	465,301	Dec. 15	2060	{ 526 527 }	57	1545
Wallen, Allen D., Cane Hill, Mo. Harrow	455,647	July 7	566	146	56	110
Wallenstein, Jacob, Cincinnati, Ohio. Device for operating elevator-doors	456,349	July 21	1653	437	56	333
Waller, David J. (See Bartholomew, Lewis, assignor.)						
Wallich, Joseph C., Detroit, Mich. Bridge-gate	451,963	May 12	802	{ 203 204 }	55	738
Walling, J. M. (See Horton, Peter D., assignor.)						
Walling, Reverdy R., Frederick, Md. Shutter-bower	445,210	Jan. 27	1983	512	54	411
Wallis, Arthur H., Basingstoke, England. Starting-valve for compound engines	466,026	Dec. 29	3257	830	57	1794
Walls, George E., Philadelphia, Pa. Rail-chair	465,223	Dec. 15	1931	491	57	1522
Wallwork, John, assignor to H. Disston & Sons, Incorporated, Philadelphia, Pa. Machine for grinding the edges of band-saw blanks or other metallic strips	448,099	Mar. 10	1345	344	54	1382

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Wallwork, Roughsedge. (See Cartwright and Wallwork.)						
Wallwork, Roughsedge, <i>et al.</i> (See Craig, Robert F., assignor.)						
Walmsley, Harry B., Beverly, assignor of one-half to C. H. Warren, Lynn, and C. H. King, Swampscott, Mass. Set-screw protector	447,742	Mar. 3	748	187	54	1260
Walmsley, Harry B., Beverly, assignor of one-half to C. H. King, Swampscott, and C. H. Warren, Lynn, Mass. Set-screw protector	456,527	July 21	1955	515	56	389
Walp, James, and C. F. Dauxlatter, Lehigh, Pa. Means for securing well-boring drills	451,788	May 5	526	130	55	678
Walrath, Austin, <i>et al.</i> (See Davis, John T., assignor.)						
Walrath, Edward, Lafargeville, N. Y. Harness	455,991	July 14	1107	291	56	219
Walser, Charles J., Milwaukee, Wis. Horse-detacher for vehicles	448,897	Mar. 24	2653	666	54	1648
Walsh, Dormer, assignor of one-half to W. I. Davis, San Francisco, Cal. Game apparatus	457,018	Aug. 4	131	32	56	558
Walsh, Francis A., Milwaukee, Wis. Die folding and seaming machine	445,738	Feb. 3	365	94	54	584
Walsh, Francis A., Milwaukee, Wis. Die-seaming machine	445,739	Feb. 3	367	95	54	585
Walsh, Francis A., Milwaukee, Wis. Die-seaming machine	445,740	Feb. 3	368	95	54	585
Walsh, Frank, Boston, Mass. Car-coupling	458,649	Sept. 1	162	38	56	1096
Walsh, James R., Troy, N. Y. Tubular bridge-wall	450,268	Apr. 14	932	231	55	185
Walsh, James R., assignor of one-half to A. G. Cunningham, Troy, N. Y. Sash cord guide	445,578	Feb. 3	90	21	54	529
Walsh, John E., New York, N. Y. Combined floating crane and elevator	451,903	May 5	693	174	55	710
Walsh, John W. (See Wright, William A., assignor.)						
Walsh, John W., assignor of two-thirds to E. F. Murray and E. H. Vaughn, Troy, N. Y. Bed-plate for railway-rail joints	459,338	Sept. 8	1242	305	56	1315
Walsh, Michael, assignor of one-half to F. C. Weir, Cincinnati, Ohio. Cattle-guard	453,096	May 26	2680	675	55	1109
Walsh, Owen. (See Dillman, William C., assignor.)						
Walsh, Richard, Philadelphia, Pa. Stuffing-box packing	454,551	June 23	2062	533	55	1565
Walsh, Richard, Philadelphia, Pa. Stuffing-box packing	464,657	Dec. 8	1000	249	57	1336
Walsh, Thomas H., Montreal, Canada. Car-coupling	444,913	Jan. 20	1515	389	54	312
Walsh, William E., Lowell, Mass. Cut-off mechanism for spinning and twisting machines	455,521	July 7	348	89	56	69
Walsworth, Luron A., Union City, Mich. Metallic hinged sash	456,454	July 21	1835	426	56	366
Walter, Charles F., assignor to K. C. Neal, H. M. Kelly, and J. W. Covert, Harrisburg, Pa. Grapple and grapple-operating machine	451,090	Apr. 28	2233	553	55	458
Walter, Charles L., Kansas City, Mo. Stone-sawing machinery	461,123	Oct. 13	879	228	57	177
Walter, Edward, assignor of five-eighths to J. A. Egan and A. D. Taylor, Keytesville, Mo. Dash-board	454,783	June 23	2434	625	55	1634
Walter, George C., Hastings, Mich. Treating hides	455,674	July 7	604		56	117
Walter, George N., Evansville, W. Va. Euvelope	446,723	Feb. 17	1980	493	54	916
Walter, George P., Brownwood, Tex. Washing-machine	461,946	Oct. 27	2920	567	57	462
Walter, George P., assignor of one-half to W. H. Flesher, Brownwood, Tex. Washing-machine	446,958	Feb. 24	2370	589	54	1000
Walter, Henry E., London, England. Apparatus for working punkas	459,663	Sept. 15	1782	448	56	1425
Walter, John H., Washington, D. C. Secondary-battery element	453,950	June 9	1169	305	55	1379
Walter, Joseph, New York, N. Y. Necktie-fastener	454,311	June 16	1692	442	55	1488
Walter, Robert F., Peoria, Ill. Adjustable hone-stand	465,401	Dec. 15	2230	572	57	1577
Walter, Sophia L., executrix. (See Walter, Willie C.)						
Walter, Willie C., deceased, Richmond, Va.; S. L. Walter executrix. Electric railway-signal	451,999	May 12	862	220	55	749
Walter, Willie C., deceased, Richmond, Va.; S. L. Walter executrix. Electric railway-signal	453,097	May 26	2682	676	55	1110
Walters, Charles F., Prospect, N. Y. Twine-holder attachment	454,784	June 23	2435	625	55	1635
Walters, John F. (See Allen, Sachtleben, and Walters.)						
Walters, John F., and J. J. Brown, Baltimore, Md. Safety water-gage	465,605	Dec. 22	2568	654	57	1652
Walters, William, and C. A. Smith, Birmingham, England. Machinery for distributing enameling powders	454,312	June 16	1693	442	55	1488
Walters, William B., assignor of one-half to W. Brown, Dunedin, New Zealand. Pneumatic churn	460,384	Sept. 29	2892	723	56	1652
Waltham Electric Clock Company. (See Menns and Dudley, assignors.)						
Walther, Charles F., assignor to S. S. Jewett & Co., Buffalo, N. Y. Range	444,281	Jan. 6	475	121	54	94
Walther, Charles F., assignor to S. S. Jewett & Co., Buffalo, N. Y. Stove-damper-operating device	446,700	Feb. 17	1943	484	54	909
Walton Architectural Iron Company. (See Ellison, Richard, assignor.)						
Walton, David S. (See Liddell, William, assignor.)						
Walton, Edward, Charlton, Iowa. Earth-boring machine	454,605	June 23	2173	561	55	1583
Walton, Edward, Sr., Baltimore, Md. Apparatus for oyster culture	463,397	Nov. 17	1889	492	57	933
Walton, George W., Sparta, Tex. Wood-working machine	448,388	Mar. 17	1843	463	54	1487
Walton, Jacob G., Davilla, Tex. Windmill-tower	465,079	Dec. 15	1696	431	57	1477
Walton, James B., Dayton, Ohio. Carriage-jack	461,460	Oct. 20	1445	363	57	294
Walton Plow Company. (See Moore, Josiah H., assignor.)						
Walton, Thomas H. (See Jamison, Thomas W., assignor.)						
Walton, William, Denton, England. Making wire for cards	457,038	Aug. 4	158	38, 39	56	564
Walworth, Edward H. (See Gatley, Edward J., assignor.)						
Walwyk, Ernest, assignor to W. Demuth & Co., New York, N. Y. Cover for pipes	454,785	June 23	2436	626	55	1635
Wampler, Samuel, Larimer's Station, Pa. Mail-bag catcher	456,665	July 28	2182	578	56	442
Wampler, Samuel C. (See Ostrom, Thielsen, and Wampler.)						
Wander, John, Orange Valley, N. J. Sash-fastener	450,344	Apr. 14	1061	260	55	209
Wands, John C., St. Louis, Mo. Car-roof	459,664	Sept. 15	1784	448	56	1426
Wands, John C., St. Louis, Mo. Car-door	459,665	Sept. 15	1786	449	56	1426
Wanless, Thomas G., Toronto, Canada. Hot-air register	454,096	June 16	1378	360	55	1426
Wantling, Isaac, and J. T. Johnson, Peoria, Ill. Coal-mining machine	451,988	May 12	843	215	55	746
Warburton, Edward A., assignor of two-thirds to N. S. Ashworth and J. Mair, Philadelphia, Pa. Lathe-dog	464,051	Dec. 1	63	18	57	1149
Ward, Alexander F., assignor of two-thirds to T. S. Christie and J. G. Dietz, Detroit, Mich. Wreck-indicating device	457,174	Aug. 4	370	95	56	603
Ward, Andrew W., Charleston, assignor of one-fourth to J. Q. Dickinson, Malden, W. Va. Car-wheel lubricator	457,019	Aug. 4	133	32	56	559
Ward, Arthur, assignor of one-half to M. D. Steck, Allegheny, Pa. Miter-box	463,216	Nov. 17	1585	412	57	875
Ward, Arthur G., and B. F. Wickwire, Bancroft, Iowa. Printing-press	464,052	Dec. 1	64	18	57	1149
Ward, Barton B., New York, N. Y. Carbon for arc lights	444,471	Jan. 13	768	200	54	161
Ward, Barton B., New York, N. Y. Electric search-light	449,719	Apr. 7	114	29, 30	55	24
Ward, Barton B., New York, N. Y. Duplex-arc lamp	458,719	Sept. 1	262	62, 63	56	1115
Ward, Barton B., assignor to Electric Construction and Supply Company, New York, N. Y. Electric-arc lamp	444,472	Jan. 13	769	200	54	161

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Ward, Barton B., assignor to Electric Construction and Supply Company, New York, N. Y. Electric-arc lamp	444,473	Jan. 13	771	201	54	161
Ward, Barton B., assignor to Electric Construction and Supply Company, New York, N. Y. Electric-lighting system	447,482	Mar. 3	359	89	54	1186
Ward, Barton B., New York, N. Y., assignor to Scott Electrical Manufacturing Company, of New Jersey. Electric-arc lamp	458,876	Sept. 1	523	127	56	1165
Ward, Claude A., and M. M. Martin, Kansas City, Kans. Street-railway switch	451,093	Apr. 28	2237	554	55	459
Ward, Daniel O., Newark, N. J. Nut-lock	458,782	Sept. 1	354	86	56	1133
Ward, David A., Warsaw, Ill. Dust-collector	450,269	Apr. 14	934	231	55	186
Ward, Edgar T. (See Bengler, Edwin F., assignor.)						
Ward, George H., Brooklyn, N. Y. Reservoir for lubricants	458,007	Aug. 18	1780	465	56	884
Ward, George R., assignor of one-half to J. Purves, Munhall, Pa. Apparatus for charging furnaces	457,063	Aug. 4	209	50, 51	56	573
Ward, John, <i>et al.</i> (See Green, John, assignor.)						
Ward, John B., Minneapolis, Minn. Mechanical stoker	446,274	Feb. 10	1280	313	54	765
Ward, John H. R., New York, N. Y. Electric-circuit closer	454,816	June 23	2502	643 644	55	1645
Ward, John H. R., assignor to Universal Arc Lamp Company, New York, N. Y. Electric-arc lamp	449,236	Mar. 31	3167	798	54	1755
Ward, John H. R., assignor to Universal Arc Lamp Company, New York, N. Y. Electric-arc lamp	449,237	Mar. 31	3168	798 799	54	1756
Ward, John H. R., assignor to Universal Arc Lamp Company, New York, N. Y. Electric-arc lamp	449,238	Mar. 31	3171	800	54	1756
Ward, John H. R., assignor to Universal Arc Lamp Company, New York, N. Y. Electric-arc lamp	451,189	Apr. 28	2413	596 597	55	492
Ward, Joseph, Rochester, N. Y. Potato-parer	457,894	Aug. 18	1435	372	56	820
Ward, Josiah O., <i>et al.</i> (See Angell, Albert, assignor.)						
Ward, Josiah O., <i>et al.</i> (See Hawkins, John J., assignor.)						
Ward, Josiah O., <i>et al.</i> (See Muggeridge, William O., assignor.)						
Ward, Michael W., Jamestown, N. Y. Sofa-bed	453,924	June 2	65	17	55	1161
Ward, Paul, and E. M. Gregory, London, England. Explosive	454,239	June 16	1583		55	1467
Ward, Paul, and E. M. Gregory, London, England. Fuse and detonator	459,321	Sept. 8	1207	295	56	1308
Ward, Richard J., Brooklyn, N. Y. Electric door-opener	457,906	Aug. 18	1607	419	56	851
Ward, Sydney A. (See Roadhouse, William, assignor.)						
Ward, William H., Noblesville, Ind. Krant-cutter	465,007	Dec. 15	1574	401	57	1456
Ward, William H., deceased, Boston, Mass.; H. H. Cotton, executor. Water-supplying apparatus for water-closets	449,768	Apr. 7	192	48	55	39
Ward, William H., deceased, Boston, Mass.; H. H. Cotton, executor. Water-closet valve	449,769	Apr. 7	194	48, 49	55	39
Ward, William H., deceased, Boston, Mass.; H. H. Cotton, executor. Operating-valve in water-closets tanks	449,770	Apr. 7	195	49, 50	55	40
Ward, William P. (See Booth, Albert C., assignor.)						
Warden, Henry, Philadelphia, Pa. Filter	450,204	Apr. 14	821	206	55	166
Warden, Henry, Philadelphia, Pa. Feed-water purifier	450,437	Apr. 14	1308	294	55	237
Warden, John D., Fall River, Mass. Staple-machine	461,654	Oct. 20	1810	446 447	57	360
Warder, Bushnell & Glessner Company. (See Bauer, Charles A., assignor.)						
Warder, Bushnell & Glessner Company. (See Kane, Maurice, assignor.)						
Wardwell, Ohn N., and C. A. White, Jamaica, Vt. Horse-checking device	446,126	Feb. 10	1007	248	54	716
Ware, Charles C., Glassborough, N. J. Lock-hinge	447,986	Mar. 10	1182	299	54	1348
Ware, George O. (See Sibley and Ware.)						
Ware, Henry E., assignor of one-half to F. W. Sisson, Ainsworth, Nebr. Device for driving horses	465,504	Dec. 22	2395	613	57	1619
Ware, J. Stratton. (See Ware, James W., assignor.)						
Ware, James A. (See Etter, William C., assignor.)						
Ware, James W., assignor of one-half to J. S. Ware, Cape May, N. J. Automatic pipe-coupling for railway-cars	464,536	Dec. 8	818	201	57	1300
Ware, Walter F., Camden, N. J. Valved rubber air-bulb	451,179	Apr. 28	2375	591	55	487
Ware, William F., Bridgeton, N. J. Rotary lawn-sprinkler	453,055	May 26	2606	659	55	1094
Warenskjold, Axel, and J. G. Burgess, San Diego, Cal. Vehicle running-gear	457,388	Aug. 11	781	201	56	685
Warfel, George M., assignor of one-half to H. M. Zimmerman, Springfield, Ohio. Street-sweeper	461,556	Oct. 20	1655	404 405	57	332
Warfield, George W., <i>et al.</i> (See Reiche, Ernest C., assignor.)						
Warfield, Solomon D., Baltimore, Md. Green-corn cutter	448,389	Mar. 17	1845	463 464	54	1487
Waring, Edward M., Brooklyn, assignor to himself, J. G. White, and J. F. Porter, New York, N. Y. Dynamo-electric machine or motor	457,754	Aug. 11	1354	350	56	798
Waring, Fred E., Saratoga Springs, N. Y. Cover for tables or stands	464,840	Dec. 8	1281	321	57	1389
Waring, George E., Jr., Newport, R. I., assignor to Drainage Construction Company, Boston, Mass. Sewer construction	451,204	Apr. 28	2437	602	55	496
Waring Hat Manufacturing Company. (See Segsneider, Gustav, assignor.)						
Waring, John, Manchester, Conn. Magnetic tachometer	446,488	Feb. 17	1621	397	54	847
Waring, John L. (See Harrison and Waring.)						
Warland, Charles A., administrator. (See Lindsley, Isaac.)						
Warnant-Creon, Julien, Hoignée-Chératte, Belgium. Breech-loading gun	445,880	Feb. 3	603	148 149	54	630
Warner, Albert O., Kansas City, Mo. Cable-grip attachment	459,073	Sept. 8	825	200	56	1233
Warner, Austin P., Boston, Mass., assignor to Duplex Printing Press Company, Battle Creek, Mich. Paper-folding	451,539	May 5	142	36	55	606
Warner, Benjamin F., Bronson, Mich. Hose-coupling	459,951	Sept. 22	2229	559	56	1517
Warner Brothers. (See Goidl, Wallace W., assignor.)						
Warner, Charles M. (See Farnham, Reuben G., assignor.)						
Warner, Daniel, Bronson, Mich. Holdback for vehicles	465,224	Dec. 15	1933	491	57	1522
Warner, De Ver H., Bridgeport, Conn. Button-strip	453,381	June 2	309	81	55	1205
Warner, Ernest P., Chicago, Ill. Polarized annunciator	448,169	Mar. 10	1448	370	54	1403
Warner, Ernest P., assignor to Western Electric Company, Chicago, Ill. Multiple cut-out for electric distribution systems	453,029	May 26	2562	648	55	1086
Warner, Ford, Kewanna, Ind. Animal-trap	450,545	Apr. 14	1355	333	55	267
Warner, George W., Freeport, Ill. Spring-hinge	448,390	Mar. 17	1849	465	54	1488
Warner, George W., Freeport, Ill. Wire-stretcher	458,720	Sept. 1	264	63	56	1116
Warner, George W., assignor to Warner Manufacturing Company, Freeport, Ill. Damper	452,739	May 19	2095	526	55	987
Warner, George W., assignor to Warner Manufacturing Company, Freeport, Ill. Damper	452,740	May 19	2096	527	55	987
Warner, Harvey, Three Mile Bay, N. Y. Bed-bottom of springs	453,850	June 9	1034	270	55	1352
Warner, Isaac M., Bronson, assignor of one-half to J. Neal, Coldwater, Mich. Vehicle hub and axle	450,438	Apr. 14	1309	295	55	237

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Warner, John E. (See Van Vechten, Orville R., assignor.)						
Warner, John P., Washington, D. C. Feed-water heater and purifier	452,943	May 26	2430	613	55	1061
Warner, Judson W., Creida, N. Y. Water heating furnace	459,243	Sept. 8	1093	267	56	1285
Warner, Lorenzo D. (See Warner, Ulysses S. G. and L. D.)						
Warner, Ludwig A., Buffalo, N. Y. Stock-account book	462,367	Nov. 3	240	58, 59	57	596
Warner Manufacturing Company. (See Painter, Robert F., assignor.)						
Warner Manufacturing Company. (See Warner, George W., assignor.)						
Warner, Ulysses S. G. and L. D., South Bend, Ind. Dumping-wagon	456,868	July 28	2526	664	56	504
Warner, Walter E., Brooklyn, N. Y. Dental-service stand	448,100	Mar. 10	1346	344	54	1382
Warner, William A., Bridgeport, Conn. Jumping toy	455,079	June 30	2098	762	55	1748
Warnock, Lewis D., Manor Station, Pa. Measuring-vessel	445,483	Jan. 27	2377	618	54	439
Warrand, Constantine B., Bluffton, S. C., assignor of two-thirds to C. Phillips and J. L. Hammond, Savannah, Ga. Manufacturing imitation horse-hair from palmetto	450,119	Apr. 7	693		55	136
Warrand, Constantine B., Bluffton, S. C., assignor of two-thirds to C. Phillips and J. L. Hammond, Savannah, Ga. Extracting palmetto fiber	450,120	Apr. 7	694		55	136
Warrand, Constantine B., Savannah, Ga., assignor of two-thirds to J. L. Hammond and C. Phillips. Process of and composition for tanning	450,121	Apr. 7	695		55	136
Warren, Aldred K. (See Andrews and Warren.)						
Warren, Charles H., et al. (See Walmsley, Harry B., assignor.)						
Warren, Christopher C., Siding, Miss. Cultivator	465,902	Dec. 29	3031	776	57	1752
Warren, Franklin R., Prospect Hill, N. C. Hanging tobacco	454,097	June 16	1379	360	55	1426
Warren, Frederick A., et al. (See Gates, Waldo L., assignor.)						
Warren, George E. (See Fowler and Warren.)						
Warren, George E., assignor to Rockingham Machine Company, Exeter, N. H. Scouring-roll	462,886	Nov. 10	1062	275	57	765
Warren, Henry H., Massena, N. Y. Apparatus for forming spirals	446,042	Feb. 10	872	212	54	689
Warren, James J., et al. (See Aldrich, Robert, assignor.)						
Warren, John E., Cumberland Mills, assignor to Cumberland Manufacturing Co., Portland, Me. Filtering apparatus	454,817	June 23	2503	644	55	1645
Warren, John K., et al. (See Hartley, Charles J., assignor.)						
Warren, John M., et al. (See Aldrich, Robert, assignor.)						
Warren, John R. (See Hoke and Warren.)						
Warren, Nathan W., et al. (See Connatt, Matthew F., Jr., assignor.)						
Warren, Robert S., and W. A. Easley, Clinton, Ky. Stamp-puller	445,460	Jan. 27	2342	609	54	483
Warren, Samuel H., Keosauqua, Iowa. Feed-rack	449,303	Mar. 31	3280	831	54	1775
Warren, William H., Worcester, Mass. Radial drilling-machine	453,780	June 9	953	247	55	1336
Warriner, Charles F. (See Miller, George F., assignor.)						
Warrington, George and J. N., Chicago, Ill. Steam-boiler	459,028	Sept. 8	757	{ 183 184 }	{ 56 }	1220
Warrington, James N. (See Warrington, George and J. N.)						
Warth, Albin, Stapleton, N. Y. Cloth-cutting machine	444,282	Jan. 6	476	121	54	94
Warth, Albin, Stapleton, N. Y. Mechanical movement	444,283	Jan. 6	479	122	54	95
Warth, Albin, Stapleton, N. Y. Mechanical movement	444,284	Jan. 6	481	123	54	95
Warth, Albin, Stapleton, N. Y. Mechanical movement	444,285	Jan. 6	483	{ 123 124 124 124 126 126 127 }	{ 54 }	96
Warth, Albin, Stapleton, N. Y. Mechanical movement	444,286	Jan. 6	485	{ 125 127 127 127 }	{ 54 }	96
Warth, Albin, Stapleton, N. Y. Mechanical movement	444,287	Jan. 6	486	{ 126 127 127 127 }	{ 54 }	97
Wash, Bishop A., Beaver Crossing, Nebr. Wheel-harrow	456,261	July 21	1519	403	56	307
Washburn, Albert L., assignor, by mesne assignments, to Pine Fibre Company, Aiken, S. C. Making rovings of pine fiber and apparatus therefor	465,440	Dec. 15	2286	586	57	1589
Washburn, Frank L., et al. (See Day, George W., assignor.)						
Washburn, George A., assignor to Ford & Washburn, Cleveland, Ohio. Secondary battery	451,540	May 5	143	36	55	607
Washburn, George A., assignor to Ford & Washburn, Cleveland, Ohio. Secondary battery	451,541	May 5	145	36	55	607
Washburn, George H., et al. (See Claflin, Frank O., assignor.)						
Washburn, George W., West New Brighton, N. Y. Combined eraser and pencil-sharpener	460,608	Oct. 6	93	26	57	21
Washburn, Isaac T., Sing Sing, N. Y. Cotton-gin rib	446,724	Feb. 17	1981	494	54	916
Washburn, Nathan, Boston, Mass. Cast-iron car-wheel and making the same	452,817	May 26	2217		55	1020
Washburn & Moen Manufacturing Company. (See Palmer, Dolphas D., assignor.)						
Washington, Luria, and W. H. Roberts, Coal Creek, Tenn. Appliance for moving railway-switches	446,904	Feb. 24	2295	571	54	986
Wason, Charles W. (See Mansfield and Wason.)						
Wass, Dyson D., assignor of one-half to E. W. Tucker, San Francisco, Cal. Electric signal for steam-vessels	455,138	June 30	3091	787	55	1766
Wass, George. (See Harris and Wass.)						
Wassmuth, Alfred J., Barmen, Germany. Inhaling apparatus	462,608	Nov. 3	609	151	57	668
Wastell, William L. F., and E. T. Day, South Woodford, England. Carriage-axle cap	449,786	Apr. 7	220	56	55	45
Watel, Etienne. (See Massignon and Watel.)						
Waterbury Buckle Company. (See Smith, Albert D., assignor.)						
Waterbury Clock Company. (See Bannatyne, Archibald, assignor.)						
Waterbury, Emery D., and A. E. Rankin, assignors of three-fifths to A. W. McEowen, J. P. Fowler, and F. A. Marcher, Salt Lake City, Utah Ter. Billiard-register	457,859	Aug. 18	1526	397	56	837
Waterbury Manufacturing Company. (See Ashworth, Richard J., assignor.)						
Waterbury Watch Company. (See Hart, George E., assignor.)						
Waterhouse, Addison G., Hartford, Conn. Electric-arc lamp	451,250	Apr. 28	2512	620	55	512
Waterhouse, Addison G., Hartford, Conn. Electric safety cut-out device	463,086	Nov. 10	1370	354	57	826
Waterhouse, Addison G., Hartford, Conn. Electric-arc lamp	464,682	Dec. 8	1040	{ 260 261 }	{ 57 }	1343
Waterhouse, Addison G., Hartford, Conn. Electric meter	464,683	Dec. 8	1045	261	57	1344
Waterhouse, Will W., Oshkosh, Wis. Pillow	461,916	Oct. 27	2242	554	57	452
Waterman, Curtis M., et al. (See Kennedy, George A., assignor.)						
Waterman, John, et al. (See Bosworth, Martin L., assignor.)						
Waterman, John, assignor of one-half to F. B. West and G. O. Lomley, Villisca, Iowa. Convertible drill and wrench	465,626	Dec. 22	2601	{ 660 661 }	{ 57 }	1658
Waterman, John H., Detroit, Mich. Boiler or stove grate	445,416	Jan. 27	2281	592	54	472
Waterman, Lewis E., Moline, Ill., assignor to Mansur & Tebbetts Implement Company, St. Louis, Mo. Whiffletree-hook	454,413	June 16	1857	485	55	1518
Waterous, Charles H., Jr., and J. N. Peel, Brantford, Canada. Friction-clutch pulley	447,217	Feb. 24	2832	702	54	1087
Waterous Engine Works Company. (See Milne, James T., assignor.)						
Waterous, Julius E., Brantford, Canada. Valve for steam-engines	449,504	Mar. 3	3639	916	54	1843
Waterson, Henry, Aston, England. Handle for velocipedes	445,914	Feb. 3	650	159	54	640
Waters, Samuel H., assignor to F. C. Whiting, Johnson, Vt. Butter-worker	457,413	Aug. 11	816	210	56	692

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Waters, Thomas J., Westport, New Zealand. Endless-cable haulage-grip	459,085	Sept. 8	843	204	56	1235
Watkeys, Henry, New Albany, Ind. Valve for steam-cylinders	453,800	June 9	979	255	55	1341
Watkins, Alfred, Hereford, England. Instrument for calculating photographic exposures	456,869	July 28	2527	664	56	505
Watkins, Benjamin D., Natchez, Miss. Inhaler	457,039	Aug. 4	159	39	56	564
Watkins, Charles F., Buffalo, N. Y. Bicycle	448,701	Mar. 24	2342	587	54	1590
Watkins, Charles G. D., assignor of one-half to W. A. Fridley, Steele, N. D. Violin tail-piece and chin-rest	450,270	Apr. 14	935	232	55	186
Watkins, Clarence S., <i>et al.</i> (See Robinson, Walstein E., assignor.)						
Watkins, Clinton D., Morrow, Ohio. Nut-lock	458,083	Aug. 18	1881	490	56	905
Watkins, Edwin D., assignor of two-fifths to W. L. Vary and T. F. Ashe, Lima, N. Y. Fence-post	449,018	Mar. 24	2837	716	54	1683
Watkins, Gardner A., assignor to Heywood Brothers & Co., Gardner, Mass. Device for assembling clasps	444,996	Jan. 20	1647	422	54	338
Watkins, Gardner A., assignor to Heywood Brothers & Co., Gardner, Mass. Cane-splicing machine	452,248	May 12	1298	325 326	55	829
Watkins, James E., assignor of one-half to J. Wilson, Philadelphia, Pa. Washing-machine	462,521	Nov. 3	469	114	57	640
Watkins, James R., <i>et al.</i> (See Robinson, Walstein E., assignor.)						
Watkins, Orla H., Eldora, Iowa. Band cutter and holder for gram-binders	459,666	Sept. 15	1768	449	56	1426
Watkins, Orla H., assignor of one-half to C. E. Albrook, Eldora, Iowa. Machine for making hay and straw rope	458,605	Sept. 1	86	19, 20	56	1082
Watkins, Orla H., assignor of one-half to C. E. Albrook and J. F. Hardin, Eldora, Iowa. Knotter for grain-binders	460,609	Oct. 6	95	26	57	21
Watkins, Orla H., assignor of one-half to J. F. Hardin and C. E. Albrook, Eldora, Iowa. Knotter for grain-binders	460,610	Oct. 6	97	27	57	22
Watris, George C., and C. J. Kaighin, San Francisco, Cal. Cable railway	446,905	Feb. 24	2296	572	54	987
Watrons, David W., East Hampton, Conn. Sounding toy	449,146	Mar. 31	3034	767	54	1731
Watrons, George W., Norwich, Conn. Grinding-machine	453,297	June 2	178	49, 50	55	1181
Watrons, William H., (See Sherman, Chauncey A., assignor.)						
Watson, Benjamin F., <i>et al.</i> (See Church, Walter A., assignor.)						
Watson, Edward, Grand Rapids, Mich. Composition of matter for retarding the setting of plaster	445,211	Jan. 27	1984		54	412
Watson, Edward, Grand Rapids, Mich. Composition of matter for restraining the setting of plaster compounds	446,604	Feb. 17	1790		54	880
Watson, Edward, Grand Rapids, Mich. Making ink	458,741	Sept. 1	294		56	1122
Watson, Edward, Grand Rapids, Mich. Composition of matter for restraining the setting of plaster	458,742	Sept. 1	294		56	1122
Watson, Edward, Grand Rapids, Mich. Composition of matter for restraining the setting of plaster	458,743	Sept. 1	295		56	1122
Watson, Edward, Grand Rapids, Mich. Manufacture of fertilizers	458,744	Sept. 1	296		56	1122
Watson, Edward P., (See Sutton, Andrew H., assignor.)						
Watson, Elias M., (See Steward, John F., assignor.)						
Watson, Elias M., Beloit, Wis. Pipe-wrench	457,064	Aug. 4	210	51	56	573
Watson, Frank M., (See Pieper and Watson.)						
Watson, James, Marinette, Wis. Domestic oven	449,432	Mar. 31	3532	890	54	1822
Watson, James B., New Brunswick, N. J. Hot-water heater	448,391	Mar. 17	1851	465	54	1488
Watson, James W., (See Wood and Watson.)						
Watson, James W., Achor, Ohio. Mowing-machine-knife grinder	446,803	Feb. 17	2102	523	54	942
Watson, James W., Chester, Pa. Guide for rolling-mills	457,685	Aug. 11	1231	316	56	771
Watson, James W., and R. F. Randolph, Achor, Ohio. Nut-lock	459,801	Sept. 22	1991	501	56	1472
Watson, Jeremiah M., Boston, Mass. Machine for cutting and molding shank-stiffeners	458,027	Aug. 18	1807	471 472	56	889
Watson, John S., (See Bennett, Oliver H. and F. C., assignors.)						
Watson, Lewis H., Newark, N. J. Ironing-machine	447,987	Mar. 10	1183	299 300	54	1348
Watson, Lewis H., Chicago, Ill. Ironing-machine	448,898	Mar. 24	2655	666	54	1648
Watson, Lewis H., Chicago, Ill. Ironing-machine	454,786	June 23	2437	626 627	55	1635
Watson, Montgomery H., assignor to Johnson & Watson, Dayton, Ohio. Index	461,787	Oct. 20	2025	500	57	401
Watson, Roger B., Denver, Colo. Piano	463,245	Nov. 17	1631	425	57	884
Watson, Simeon P., Brooklyn, N. Y. Barber's indicator	448,392	Mar. 17	1852	466	54	1488
Watson & Stillman, (See Forrest, Hamlet E., assignor.)						
Watson, Thomas A., Bentonville, Ark. Ball-and-socket fifth-wheel	465,080	Dec. 15	1698	432	57	1478
Watson, Thomas H., Itasca, Tex. Rein-holder	460,734	Oct. 6	323	79	57	64
Watson, W. A., <i>et al.</i> (See Dunn, John P., assignor.)						
Watson, Walter H., Boston, Mass. Shank-stiffener for boots or shoes	458,353	Aug. 25	2338	570	56	998
Watson, Walter H., Boston, Mass. Stiffening and increasing the resiliency of metal strips	458,381	Aug. 25	2386	582	56	1006
Watson, Wheeler, Strong's Station, Miss. Plow	445,027	Jan. 20	1685	433	54	345
Watson, Wheeler, Strong's Station, Miss. Machine for picking peanuts	445,664	Feb. 3	238	64, 65	54	558
Watson, William C., Paterson, N. J. Car-coupling	459,502	Sept. 15	1507	377 378	56	1374
Watson, William L., Montreal, Canada. Compound for destroying insects on plants	465,729	Dec. 22	2836		57	1705
Watsontown Boot and Shoe Company, (See Waldschmidt, Edward, assignor.)						
Watt, Alexander, London, England. Electrolytically obtaining zinc	459,556	Sept. 15	1599		56	1391
Watt, John, Quaker Hill, Conn. Cylinder-vat for paper-making machinery	464,537	Dec. 8	820	202	57	1300
Watt, Sern P., (See Robinson and Watt.)						
Watt, Sern P., Cincinnati, Ohio, assignor to Columbus Cash Register Company, of Ohio. Cash register and indicator	454,990	June 30	2830	720 721	55	1715
Watt, Sern P., assignor to Columbus Machine Company, Columbus, Ohio. Blowing-engine	456,643	July 28	2144	567 568	56	434
Watt, William Y., Brooklyn, N. Y. Thill-support	452,627	May 19	1914	481	55	952
Watte, Albert, (See Chase, Henry A., assignor.)						
Watters, James D., Belair, Md. Calendar	447,171	Feb. 21	2749	680	54	1070
Watters, John S., U. S. Navy, assignor of one-third to F. Emmett, New Orleans, La. Bal- ing and weighing scale	454,953	June 30	2760	703	55	1701
Watters, Rama R., Akron, Ohio. Dust-collector	451,542	May 5	146	36	55	607
Watters, Rama R., Akron, Ohio. Dust-collector	451,543	May 5	147	37	55	607
Wattie, William, assignor to Knowles Loom Works, Worcester, Mass. Take-up mechan- ism for narrow-ware looms	454,961	June 30	2769	706	55	1703
Wattie, William, Worcester, Mass., assignor of one-half to G. H. Webb, Pawtucket, R. I. Brooch or lace-pin safety attachment	460,296	Sept. 29	2757	687	56	1626
Wattles, Cyra B., Elizabeth, N. J. Device for transmitting power	452,444	May 19	1623	403 404	55	898
Wattles, Cyra B., Elizabeth, N. J. Power-transmitting device	452,445	May 19	1626	404 405	55	898

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Wattles, Joseph W., Canton, Mass. Step-bearing for spinning-spindles	449,341	Mar. 31	3366	848	54	1789
Wattles, Joseph W., Canton, Mass. Spindle-support	463,114	Nov. 10	1421	367	57	836
Watton, Fealdon E., assignor of one-half to G. C. Goetting, Altamont, Ill. Packing-strip	458,877	Sept. 1	525	{ 127 128 }	56	1165
Watts, Charles J. (See White, Baker, and Watts.)						
Watts, Elias, Keyport, N. J. Asparagus-buncher	459,426	Sept. 15	1398	349	56	1354
Watts, John E., Topeka, Kans. Combination-tool for tire-tighteners, &c	459,609	Sept. 22	1992	501	56	1472
Watts, Joseph E., Lawrence, Mass. Damper-regulator	462,961	Nov. 10	1184	307	57	789
Watts, Julius R., assignor to himself and E. A. Wilson, Springfield, Ill. Drill for boring and reaming	451,789	May 5	527	130	55	678
Watts, T. H., et al. (See Roberts, Lewis A., assignor.)						
Watts, Thomas, Pershore, county of Worcester, England. Thill-coupling	448,284	Mar. 17	1671	423	54	1454
Watts, W. J., et al. (See Roberts, Lewis A., assignor.)						
Watson, William G. (See Stewart, Joseph B., assignor.)						
Waugaman, Boaz E., North Clarendon, Pa. Pull-wheel for oil-wells	454,787	June 23	2439	627	55	1635
Way, Benjamin R., et al. (See Banks, George L., assignor.)						
Way, Daniel C., Ord, Nebr. Type-writing machine	460,901	Oct. 6	567	{ 144 145 }	57	111
Way, Fred. E. (See Steele, Benjamin M., assignor.)						
Way, George P., Detroit, Mich. Vapor or gas burner	457,414	Aug. 11	819	210	56	692
Way, Luther T., et al. (See Banks, George L., assignor.)						
Wayland, Ellis, assignor of one-half to W. H. Johnson, Gest, Ky. Churn	454,923	June 30	2706	692	55	1601
Wayland, James, Newark, N. J. Pneumatic semaphore-signal	447,988	Mar. 10	1185	301	54	1349
Wayland, James, Newark, N. J. Railway time-signal	447,989	Mar. 10	1188	{ 301 302 }	54	1350
Wayland, James, Newark, N. J. Railway time-signal	457,175	Aug. 4	372	{ 95 96 }	56	604
Wayman, Henry P., Trenton, N. J. Car-starter	459,803	Sept. 22	1993	503	56	1473
Wayman, Henry P., Trenton, N. J. Coal-wagon	465,903	Dec. 29	3032	776	57	1752
Wayman, Henry P., Trenton, N. J. Dumping-wagon	465,904	Dec. 29	3033	{ 776 777 }	57	1752
Waymoth & Co., A. D. (See Scanlan, David, assignor.)						
Wayne, Abraham M. (See Frey and Wayne.)						
Weakley, Loyd L., Edwards, assignor of one-half to E. P. Dismukes, Quincy, Fla. Car-coupling	460,101	Sept. 22	2451	613	56	1560
Weathers, James, Indianapolis, Ind. Sash-holder	460,413	Sept. 29	2927	{ 731 732 }	56	1658
Weathersby, Sarah A., Killeen, Tex. Car-coupling	459,029	Sept. 8	759	184	56	1221
Weatherson, Christopher, assignor to himself and Chicago Forge and Bolt Company, Chicago, Ill. Air-hoist	465,008	Dec. 15	1575	401	57	1456
Weatherson, Christopher, and P. K. Richter, Chicago, Ill. Locomotive turn-table	465,009	Dec. 15	1577	402	57	1456
Weaver, Abram A., and J. W. Brooks, Wartensburg, Mo. Station call and signal	449,505	Mar. 31	3640	916	54	1843
Weaver, Charles E. (See Brown, Robert, assignor.)						
Weaver, David B., Hopewell, Pa. Elevated railway	447,172	Feb. 24	2751	{ 680 681 }	54	1071
Weaver, Ephraim E., assignor to L. O. Howell, Jr., Philadelphia, Pa. Telephonic relay	463,207	Nov. 17	1571	409	57	872
Weaver, Frank M., and F. F. Thoma, Silver City, N. Mex. Ter. Saw guide and rounder	449,984	Apr. 7	503	{ 125 126 }	55	97
Weaver, Henry B., Burlington, N. J. Combined inkstand and calendar	455,648	July 7	567	146	56	110
Weaver, Henry M., assignor to Barr Cash and Package Carrier Company, Mansfield, Ohio. Cash and package carrier	465,686	Dec. 22	2691	686	57	1675
Weaver, Henry M., assignor to Barr Cash and Package Carrier Company, Mansfield, Ohio. Cash and package carrier	465,687	Dec. 22	2692	686	57	1675
Weaver, John R., assignor of one-half to J. Morris, Waynesborough, Tenn. Car-coupling	446,556	Feb. 17	1729	425	54	868
Weaver, Joseph, Coshocton, Ohio. Dumping mechanism for cars	464,906	Dec. 8	1376	346	57	1407
Weaver, Thomas J., Cincinnati, Ohio. T-square	458,606	Sept. 1	90	20	56	1083
Weaver, Thomas J., Cincinnati, Ohio. Saw-set	460,190	Sept. 29	2589	{ 645 646 }	56	1594
Weaver, William, Philadelphia, Pa. Filter	463,410	Nov. 17	1907	498	57	936
Webb, Andrew B., et al. (See Barker, Jeremiah J., assignor.)						
Webb, Charles H., New York, N. Y. Adding-machine	465,120	Dec. 15	1775	{ 448 449 }	57	1491
Webb, Frank S. (See Wyman and Webb.)						
Webb, Frederic E., Boston, Mass. Reversible sign for horse-cars	449,506	Mar. 31	3642	916	54	1943
Webb, George B., Newark, N. J. Type-writing machine	453,683	June 9	791	{ 204 205 }	55	1305
Webb, George B., assignor to Remington Standard Typewriter Manufacturing Company, New York, N. Y. Type-writing machine	465,905	Dec. 29	3034	777	57	1753
Webb, George F. (See Crisp and Webb.)						
Webb, George F., Jefferson, Ohio. Electric apparatus for treating deafness	454,313	June 16	1694	443	55	1488
Webb, George H. (See Wattie, William, assignor.)						
Webb, George H., Pawtucket, R. I. Machine for milling bolts	451,145	Apr. 28	2326	577	55	476
Webb, George H., Pawtucket, R. I. Machine for heading bolts	451,604	May 5	239	57	55	625
Webb, George L., Enon, assignor of one-half to P. Folkemer, Springfield, Ohio. Wrench	451,283	Apr. 28	2570	633	55	523
Webb, John N., Birmingham, Ala. Thermo-electric battery	449,186	Mar. 31	3099	781	54	1742
Webb, John W., Union Springs, Ala. Gin-saw cleaner	447,218	Feb. 24	2834	703	54	1088
Webb, Martin V., et al. (See Barker, Jeremiah J., assignor.)						
Webb, Samuel D., et al. (See Barker, Jeremiah J., assignor.)						
Webb, Samuel J., Minden, La. Force-pump	444,128	Jan. 6	250	60	54	51
Webb, Thomas, Stockport, England. Sweat-band for hats	456,785	July 28	2326	628	56	479
Webb, William J., Sabine Pass, Tex. Feed-trough	459,322	Sept. 8	1208	295	56	1309
Webb, William J., Sabine Pass, Tex. Trunk-strap fastener	465,225	Dec. 15	1933	492	57	1522
Webber, Charles C. (See Sykes, Albert M., assignor.)						
Webber, Charles C., Springfield, Mass. Sectional steam-generator	451,094	Apr. 28	2239	{ 554 555 }	55	459
Webber, Edward B. (See Critcher and Webber.)						
Webber, Edward B., Collierville, Tenn. Muzzle	459,557	Sept. 15	1600	{ 400 401 }	56	1391
Webber, George S., Chicago, Ill. Shoe-fastening	450,205	Apr. 14	823	266	55	166
Webber, Harold A., Passaic, N. J. Trolley-wheel support for electric cars	450,853	Apr. 21	1880	460	55	381
Webber, John T. (See Patten and Webber.)						
Webber, Joseph L., Detroit, Mich. Preparing pepsin	449,639	Apr. 7	302	-----	55	59
Webber, Joseph L., Detroit, Mich. Pepsin	454,575	June 23	2101	-----	55	1572

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Webber, Josiah A., Brooklyn, N. Y. Corn-husking and fodder-cutting machine.	446,747	Feb. 17	2015	{ 502 503 504 527 }	54	923
Webber, Josiah A., Brooklyn, N. Y. Car-wheel	461,859	Oct. 27	2139	527	57	432
Webber, Sophia G. (See Blanchard, George W., assignor.)						
Webber, Thomas E., Randolph, Me. Suspenders.	465,790	Dec. 22	2537	727	57	1705
Webber, Wesley, Pittsburg, Pa. Well-drilling apparatus.	446,588	Feb. 17	1770	437	54	876
Webber, Wesley, Pittsburg, Pa. Deep-well-drilling apparatus.	463,830	Nov. 24	2651	691	57	1086
Webber, William A., Meriden, Conn., assignor to Aeolian Organ and Music Company, New York, N. Y. Music-sheet for mechanical musical instruments.	452,203	May 12	1228	310	55	813
Webber, William F., Hornellsville, N. Y. Wire fence.	460,316	Sept. 29	2788	695	56	1632
Webber, William J., San Francisco, Cal. Horse-collar-stuffing machine.	465,302	Dec. 15	2062	527	57	1545
Webber, William O., Erie, Pa. Journal-box for steam-engines.	449,840	Apr. 7	303	79	55	59
Weber, Albert R., Brooklyn, N. Y. Street-sweeping machine.	454,533	June 23	2044	529	55	1561
Weber, Charles E., Springfield, Ill., assignor of one-half to J. Schneider. Combination bolt and washer.	462,752	Nov. 10	836	219	57	721
Weber, Charles S., San José, Cal. Stringed instrument.	462,645	Nov. 3	666	168	57	679
Weber, Frank, Louisville, Ky. Dumping-cart.	449,720	Apr. 7	116	30	55	25
Weber, Frederick, Philadelphia, Pa. Sounding-post setter for stringed instruments.	455,822	July 14	866	227	56	174
Weber, George J., Kansas City, Mo. Gas-engine and ignitor therefor.	444,031	Jan. 6	78	20, 21	54	19
Weber, George J., Kansas City, Mo. Gas-engine.	449,507	Mar. 31	3643	917	54	1843
Weber, Henri C. (See Jones and Weber.)						
Weber, Henry, New Bedford, Mass. Nail brush and polisher.	445,683	Feb. 3	281	75	54	568
Weber, Henry, New Bedford, Mass. Cradle.	454,191	June 16	1515	397	55	1452
Weber, Hugo J., et al. (See Collins, William G., assignor.)						
Weber, John, Hamilton, Ohio. Center-grinder for lathes.	457,389	Aug. 11	782	201	56	685
Weber, Matthew G. (See Myers, Frank., assignor.)						
Weber, Moritz, assignor to G. J. Kobusch, St. Louis, Mo. Ratchet-handle for car-brakes.	459,101	Sept. 8	879	212	56	1244
Weber, Moritz, assignor to G. J. Kobusch, St. Louis, Mo. Car-truck.	463,738	Nov. 24	2429	{ 636 637 }	57	1045
Weber, Robert. (See Beutelspacher, Henry, assignor.)						
Weber, Theodore A. (See Schultz and Weber.)						
Webster, Albert L., New Brighton, N. Y. Machine for opening and closing barriers controlling openings.	464,597	Dec. 8	902	222	57	1317
Webster, Camp & Lane Machine Company. (See Haberlin, Herman, assignor.)						
Webster, Camp & Lane Machine Company. (See Pitkin, Stephen H., assignor.)						
Webster, Charles F., Shelbyville, Ind. Counting-machine.	452,860	May 26	2280	572	55	1032
Webster, Edson, Cannonsville, N. Y. Moving and reaping machine.	450,546	Apr. 14	1356	334	55	267
Webster, Ella S., et al. (See Putnam, Theodore A. B., assignor.)						
Webster, Harold A., Haverhill, assignor, by mesne assignments, to G. H. P. Flagg, Boston, Mass. Machine for cleaning shoe-uppers.	445,359	Jan. 27	2201	571	54	456
Webster, Harold A., Haverhill, assignor to G. H. P. Flagg, Boston, Mass. Cleaning and polishing brush.	449,239	Mar. 31	3173	801	54	1757
Webster, Harold A., Haverhill, assignor to G. H. P. Flagg, Boston, Mass. Rotary brush.	461,655	Oct. 20	1812	447	57	360
Webster, Harry E., et al. (See Dustin, Frank J., assignor.)						
Webster, Jerome J., Somerville, Mass., assignor to Boston Cash Indicator and Recorder Company, Bangor, Me. Cash register and indicator.	447,854	Mar. 10	954	{ 239 240 241 }	54	1306
Webster, Jerome J., and W. W. Drew, Somerville, Mass., assignors to Boston Cash Indicator and Recorder Company, Bangor, Me. Cash register and indicator.	447,264	Feb. 24	2909	{ 723 724 }	54	1103
Webster, Jerome J., Somerville, and K. Hyde, Lowell, Mass., assignors to Boston Cash Register Company. Cash register and indicator.	458,541	Aug. 25	2633	641	56	1054
Webster, Jonathan V., Creston, Cal. Cultivator.	455,914	July 14	991	{ 258 259 }	56	198
Webster, Joseph M., Liverpool, England. Apparatus for feeding nails to box-nailing machines.	451,349	Apr. 28	2658	658	55	540
Webster, Juliet K., Boston, Mass. Lamp-burner rest.	458,957	Sept. 1	635	156	56	1189
Webster, Ralph D., et al. (See Smith, George A., assignor.)						
Webster, Walter R., Pine Grove, Cal. Closing device for water-closet lids.	452,684	May 19	1999	500	55	969
Webster, Walter R., Pine Grove, Cal. Spring-hinge.	452,685	May 19	2001	500	55	969
Webster, Thomas J., Denver, Colo. Mechanical power.	460,297	Sept. 29	2758	687	56	1626
Webster, Warren, Philadelphia, Pa. Feed-water heater and purifier.	456,072	July 14	1222	321	56	240
Wechsler & Co., Levi. (See Ellenbogen, Mangold H., assignor.)						
Wedekind, Henry L. (See Jahr and Wedekind.)						
Wedlake, James. (See Jones and Wedlake.)						
Weed, Alfred, Tarrytown, N. Y. Manufacturing bullets.	444,474	Jan. 13	773	201	54	162
Weed, Alfred, Tarrytown, N. Y. Machine for cutting files or rasps.	460,543	Sept. 29	3149	786	56	1702
Weed, Alfred, Tarrytown, N. Y., assignor to Kearney & Foot Company, Paterson, N. J. Machine for cutting files and rasps.	460,355	Sept. 29	2855	711	56	1645
Weed, Alfred, and J. Rockwell, Tarrytown, N. Y. Device for raising and lowering propellers.	444,475	Jan. 13	774	201	54	162
Weed, Jacob K. (See Jesson and Weed.)						
Weeden, Charles L., assignor of five-sixths to A. B. and J. A. McMurray, J. H. Vaughan, E. Molloy, and P. Dwyer, Marion, Ohio. Portable boiler.	461,788	Oct. 20	2027	500	57	401
Weeden, Henry C., Quincy, Mass. Refrigerating device.	455,522	July 7	349	90	56	69
Weegmann, Frederick. (See Nagler, Robert, assignor.)						
Weeks, C. E., et al. (See Sogga, Henry and C., assignor.)						
Weeks, Charles A. (See Foehl and Weeks.)						
Weeks, Charles A., and C. Foehl, Philadelphia, Pa. Lock for revolvers.	447,219	Feb. 24	2834	703	54	1088
Weeks, Charles D., Akron, Ohio. Wrought-metal pulley.	466,204	Dec. 29	3526	{ 901 902 }	57	1846
Weeks, Charles D., Akron, Ohio. Wrought-metal split pulley.	466,205	Dec. 29	3526	902	57	1846
Weeks, Clayton, and J. E. Bush, Hobart, N. Y. Car-coupling.	447,035	Feb. 24	2505	622	54	1025
Weeks, Curran C., Oskaloosa, Iowa. Glove-receptacle.	457,390	Aug. 11	784	201	56	686
Weeks, Francis W. (See Johnson Fred A., assignor.)						
Weeks, George, East Oakland, Cal. Railway-rail-joint coupling.	463,258	Nov. 17	1651	{ 429 430 }	57	888
Weeks, Horace, Boston, Mass., assignor, by mesne assignments, to Consolidated Metallic Fastening Company, Portland, Me. Reel for nailing-machines.	464,234	Dec. 1	359	87	57	1201
Weeks, John. (See Dudgeon and Weeks.)						
Weeks, Martin L., Yantic, Conn. Attachment for lathes.	458,084	Aug. 18	1882	490	56	905
Weeks, Nelson, Jr., Long Island City, N. Y. Trolley-wire support.	460,735	Oct. 6	324	79	57	64
Weeks, Thomas C., Baltimore, Md. Medicine-dropper.	446,574	Feb. 17	1752	431	54	872
Weems, David G., Baltimore, Md., assignor to Weems Electric Railway System, of West Virginia. Electric-railway system.	452,741	May 19	2097	527	55	988

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Weems Electric Railway System. (See Weems, David G., assignor.)						
Wegmann, Edward, Jr., New York, N. Y., and C. J. Bates, Englewood, N. J. Railway	446,106	Feb. 10	971	238	54	708
Wegner, Herman. (See Wendel and Wegner.)						
Wegner, Herman, Groton, S. D. Combined drill, reamer, and pipe-puller	465,103	Dec. 15	1745	442	57	1486
Wehmann, Hermann. (See Heymeier and Wehmann.)						
Wehner, Christian, Buffalo, N. Y. Gage for sawing-machines	462,419	Nov. 3	326	80	57	612
Wehrstedt, Alfred von, Vienna, Austria-Hungary. Cleaning-rod for fire-arms	464,099	Dec. 1	140	34	57	1163
Wehrstedt, Alfred von, Vienna, Austria-Hungary. Cartridge-holder	464,971	Dec. 15	1492	374	57	1440
Weicher, John H., assignor of one-half to G. W. Clark, Penfield, N. Y. Bob-sled	464,927	Dec. 8	1400	353	57	1412
Weichhart, John, San Francisco, Cal. Machine for forming sheet-metal lathing	446,939	Feb. 24	2345	583	54	985
Weidemann, Theodore R., Philadelphia, Pa. Pocket-book frame	453,823	June 9	1006	262	55	1347
Weidenbusch, Adolf, Darmstadt, Germany. Mechanism for separating sheets of material						
Weidenhamer, Georg M., Aglasterhausen, Germany. Manufacture of whips	450,854	Apr. 21	1881	460	55	381
Weidman, Charles O., Montville, Ohio. Windmill	464,210	Dec. 1	320	78	57	1194
Weidmann, Peter W., Saline, Mich. Fence	446,307	Feb. 10	1335	325	54	776
Weidmann, Peter W., Saline, Mich. Fence	458,028	Aug. 18	1811	472	56	896
Weies, Jean, and P. Gassen, Cologne, Germany. Apparatus for producing plastic ornaments on profiled borders, &c.	452,204	May 12	1230	311	55	814
Weigand, Adam. (See Murphy and Mixer, assignors.)						
Weigand, Alfred, Sheboygan, Wis. Umbrella	445,707	Feb. 3	317	84	54	575
Weigelin, Gustav, Stuttgart, Germany. Drying-room	460,298	Sept. 29	2760	687	56	1627
Weightman, David B., Grand Rapids, Mich. Cut-off box	458,768	Sept. 1	329	80	56	1128
Weigle, Carl G., Stuttgart, Germany. Wind-chest for organs	457,686	Aug. 11	1232	316	56	772
Weil, George L. (See Hewett, Ernest M. G., assignor.)						
Weil, Josef, Weinhaus, near Vienna, Austria-Hungary. Machine for uniting the sides of card-board boxes	451,585	May 5	211	51	55	619
Weil, Josef, Weinhaus, near Vienna, Austria-Hungary. Machine for fastening corners of pasteboard boxes with metal clips	458,510	Aug. 25	2592	631	56	1045
Weiland, Henry L. (See Klippert, Vogt, and Weiland.)						
Weiler, Robert. (See Just, Weiler, and Heidepriem.)						
Weimer, Asa A. (See Weimer, Peter L. and A. A.)						
Weimer, Frank A., Stanberry, Mo. Electric-light hanger	457,687	Aug. 11	1233	317	56	772
Weimer, Peter L. and A. A., Lebanon, Pa. Counterbalanced jib-crane	446,043	Feb. 10	873	212	54	690
Weimer, Peter L. and A. A., Lebanon, Pa. Hoisting-drum for elevators	446,044	Feb. 10	875	213	54	690
Weimer, William G., et al. (See Brown, Junius W., assignor.)						
Wein, Karl, Kesmark, Austria-Hungary. Shedding mechanism for looms	460,414	Sept. 29	2929	732	56	1658
Weinberg, Arthur, assignor to L. Cassella & Co., Frankfort-on-the-Main, Germany. Violet dye	464,538	Dec. 8	821	213	57	1301
Weinhold, Charles. (See Stützel and Weinhold.)						
Weingaertner, Albert, St. Louis, Mo. Combined balance and swinging sash	462,609	Nov. 3	610	152	57	668
Weinland, Charles W. (See Reader and Weinland.)						
Weinman, Christian J., et al. (See Euchenhofer, Edward E., assignor.)						
Weinman, Christian J., E. E. Euchenhofer, and W. M. Kinnard, Dayton, Ohio; said Weinman and Euchenhofer assignors to said Kinnard. Autographic register	455,445	July 7	233	60	56	47
Weinmann, Gustav, New York, N. Y. Smoking-pipe	451,313	Apr. 28	2610	644	55	530
Weinrich, Moriz, St. Louis, Mo. Purification and manufacture of sugar	455,675	July 7	604	56	56	118
Weinsbank, Frank A., Los Angeles, Cal. Sanitary plumbing	452,818	May 26	2218	556	55	1020
Weir, Andrew H., Los Angeles, assignor of one-half to J. O'Bannon, San Gabriel, Cal. Car-coupling	461,527	Oct. 20	1612	394	57	323
Weir, Fredric C. (See Ramsey, Harden, and Wilder, assignors.)						
Weir, Fredric C. (See Walsh, Michael, assignor.)						
Weir, Fredric C., and N. O. Goldsmith, assignors to Weir Frog Company, Cincinnati, Ohio. Switch	458,436	Aug. 25	2471	601	56	1022
Weir Frog Company. (See Goldsmith, Nathaniel O., assignor.)						
Weir Frog Company. (See Partington and Harden, assignors.)						
Weir Frog Company. (See Weir and Goldsmith, assignors.)						
Weir, Robert M., Boone, Iowa. Furnace	450,892	Sept. 22	2142	538	56	1502
Weir, Thomas, Dublin, Ireland. Wheel for velocipedes	460,243	Sept. 29	2668	665	56	1609
Weiss, Charles J., Frankfort, Kans. Horse-collar fastener	453,789	June 9	966	251	55	1339
Weiss, Henry, Burlington, Iowa. Cell-case	452,115	May 12	1083	275	55	786
Weissbaum, Edward, et al. (See Allen, Benjamin B., assignor.)						
Weissell, David D. (See Biddle, Thomas M., assignor.)						
Weiser, John N., Wichita, Kans. Sash-balance	452,249	May 12	1304	326	55	830
Weishan, Louis, and F. Jaster, Milwaukee, Wis. Combined vegetable slicer and grater	461,656	Oct. 20	1813	447	57	361
Weishan, Louis, F. Jaster, and H. P. Bohmann, Milwaukee, Wis. Hitching device	463,398	Nov. 17	1891	492	57	933
Weiss, Alexander, and E. F. W. Kunze, St. Louis, Mo. Show-case and ice-box	455,915	July 14	993	259	56	199
Weiss, Carl W. (See Kruse and Weiss.)						
Weiss, Carl W., Brooklyn, N. Y. Locking device for indicating, registering, and adding mechanisms	456,177	July 21	1377	366	56	281
Weiss, Carl W., Brooklyn, N. Y. Check printing and adding machine	457,140	Aug. 4	313	82	56	593
Weiss, Carl W., Brooklyn, N. Y. Device for cooling liquids	458,607	Sept. 1	92	21	56	1084
Weiss, Carl W., assignor of one-half to C. Kruse, New York, N. Y. Cash indicating, recording, and registering machine	447,036	Feb. 24	2505	623	54	1025
Weiss, Carl W., Brooklyn, assignor to Kruse Cash Register Company, New York, N. Y. Check-printing and adding machine	458,203	Aug. 25	2072	536	56	948
Weiss, Julius, Kiel, Germany. Fastening for tool-handles	447,707	Mar. 3	687	170	54	1248
Weiss, Louis T., Brooklyn, assignor to Murtha & Burns, New York, N. Y. Cash indicator and register	449,393	Mar. 31	3459	870	54	1807
Weisser, Theodor, Vöhrenbach, Germany. Control apparatus for the position of signal-disks	461,657	Oct. 20	1815	448	57	361
Weisser, Theodor, Vöhrenbach, assignor to Firm of G. Hettich Sohn, Furtwangen, Germany. Cuckoo-clock	465,441	Dec. 15	2287	449	57	1390
Weisz, Albert R., Brooklyn, assignor to Biddle & Westermann, New York, N. Y. Mechanical movement	461,723	Oct. 20	1920	475	57	381
Weitmyer, William F., assignor of two-thirds to A. S. Harbolt and M. D. Jenkins, Harrisburg, Pa. Device for seaming roofing plates	465,906	Dec. 29	3037	777	57	1753
Weitzell, William H., et al. (See Egan, Charles E., assignor.)						
Welch, Abram T., assignor of one-half to R. Allison, E. F. Knittle, C. R. Allison, and W. W. Turner, Port Carbon, Pa. Pump for gas machines or plants	452,116	May 12	1084	275	55	786
Welch, Alonzo T. (See Lawson, Samuel, assignor.)						
Welch, David, assignor of one-half to E. L. Parrish, Buffalo, N. Y. Steering-gear for vessels	452,742	May 19	2099	528	55	928

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Welch, E. B., <i>et al.</i> (See Robinson and Stephenson, assignors.)						
Welch, Everett C. (See Dickey, Shaver, Stahl, and Welch.)						
Welch, Frank E., Trinity College, N. C. Bedstead-brace	462,853	Nov. 10	1011	261	57	756
Welch, George A. (See Starr and Hollingsworth, assignors.)						
Welch, Henry T., San José, Cal. Veterinary inhaler	451,655	May 5	324	79	55	640
Welch, Howard F., Richfield Springs, assignor to M. H. Chase, New York, N. Y. Shaft-support for vehicles	453,728	June 9	865	224	55	1319
Welch, James F., assignor to Glen Cove Machine Company, Limited, Brooklyn, N. Y. Feed mechanism for wood-planing machines	461,557	Oct. 20	1657	405	57	332
Welch, James F., assignor to Glen Cove Machine Company, Limited, Brooklyn, N. Y. Flooring-gage	465,121	Dec. 15	1779	149	57	1492
Welch, James L., assignor of two-thirds to J. O. Wright and C. B. Gifford, Birmingham, Ala. Car-coupling attachment	459,187	Sept. 8	1009	247	56	1268
Welch, John. (See Paine, Harry G., assignor.)						
Welch, Reuel H., St. Louis, Mo. Advertising or other article	459,150	Sept. 8	953	230	56	1258
Welch, Samuel, assignor of one-half to T. Ballentyne, Chicago, Ill. Combination household utensil	449,147	Mar. 31	3034	767	54	1731
Welch, William E., Bushton, Ill. Dumping-wagon	446,308	Feb. 10	1336	325	54	776
Weld, George A., Winchester, Mass. Shoe-fastening	452,403	May 19	1563	388	55	887
Weld, George A., Winchester, Mass. Fastening device	450,059	Sept. 8	805	195	56	1229
Weldon, John D. (See Strang, Lew K., assignor.)						
Weldon, Leonard, Amsterdam, N. Y. Yarn-dyeing machine	464,337	Dec. 1	520	{ 126 127 }	57	1233
Weldon, Leonard, Cohoes, N. Y., assignor to Klander-Weldon Dyeing Machine Company, Philadelphia, Pa. Yarn-dyeing machine	466,285	Dec. 29	3657	935	57	1871
Weldon, Leonard, Amsterdam, N. Y., assignor to Klander-Weldon Dyeing Machine Company, Philadelphia, Pa. Yarn-dyeing machine	466,286	Dec. 29	3659	{ 935 936 }	57	1872
Weldon, William E., San Francisco, Cal. Vaginal atomizer	445,579	Feb. 3	91	22	54	529
Weldon, William E., San Francisco, Cal. Vaginal syringe	457,176	Aug. 4	376	96	56	605
Welin, Axel, London, England. Breech mechanism for guns	451,865	May 5	634	158	55	699
Wellivar, George F., Milton, Pa. Driving-gear for planers	444,309	Jan. 6	514	131	54	103
Wellbrock, August H. (See Campbell, Michael, assignor.)						
Wellcome, Frank O., Portland, Me. Tuning-slide for musical instruments	448,307	Mar. 17	1709	433	54	1462
Wellens, Joseph, <i>et al.</i> (See Shiring, Joseph L., assignor.)						
Wellens, Robert, <i>et al.</i> (See Shiring, Joseph L., assignor.)						
Weller, Abraham. (See Sellers, John C., assignor.)						
Weller, Franklin A., assignor to W. S. Hadaway, Jr., trustee, Boston, Mass. Electric-motor switch	445,741	Feb. 3	369	95	54	585
Weller, Franklin A., assignor to W. S. Hadaway, Jr., trustee, Boston, Mass. Incandescent-electric-lamp socket	449,604	Mar. 31	3792	952	54	1870
Weller, Giles W., Baker City, Oreg. Car-coupling	446,240	Feb. 10	1228	300	54	755
Weller, Warrington S., and E. B. Mann, Delaware, N. J. Rail-splice and bolt for railways	451,350	Apr. 28	2661	659	55	541
Weller, William H., <i>et al.</i> (See Pulliam, Luther, assignor.)						
Welles, Fred A., Milwaukee, Wis. Surface-gage	444,685	Jan. 20	1428	372	54	295
Welles, John C. (See Eggleston and Welles.)						
Welles, Matthias H., Elmira, N. Y. Bath-tub attachment	466,206	Dec. 29	3527	902	57	1847
Welling, Frank, Fort Wayne, Ind. Hammock-support and canopy-holder	460,804	Oct. 6	422	105	57	84
Wellington, Frank O., Braintree, assignor to J. W. Hart, Weymouth, Mass. Channeling-machine	454,631	June 23	2215	570	55	1590
Wellington Manufacturing Company. (See Flick, Otis C., assignor.)						
Wellman Sole Cutting Machine Company. (See Stickney, Allison M., assignor.)						
Wellman, William H. (See Allen and Wellman.)						
Wellock, William, Salt Lake City, Utah Ter. Shoe-lace fastener	454,314	June 16	1695	443	55	1488
Wells, Albert, Saranac, Mich. Washing-machine	459,775	Sept. 22	1951	492	56	1465
Wells, Alonzo R. (See Prescott, Samuel A., assignor.)						
Wells, Arthur C., <i>et al.</i> (See Craig, Robert P., assignor.)						
Wells, Charles E., and B. K. Lewis, Lynn, Mass. Shutter-worker	449,508	Mar. 31	3646	917	54	1844
Wells, Charles S., assignor to H. W. Garland, Bay City, Mich. Conveyer. (Reissue)	11,206	Dec. 1	736	180	57	1275
Wells, Edward B., New Castle, Ky. Corn-planter	462,223	Oct. 27	2717	684	57	542
Wells, Elias B., Cox's Creek, Ky. Sleigh-knee	456,262	July 21	1520	403	56	308
Wells, Frank A., Passaic, N. J. Water-closet-tank valve	456,178	July 21	1379	366	56	281
Wells, Gardner F. (See Miller and Wells.)						
Wells, George A., Oskaloosa, Iowa. Hot-air furnace	453,454	June 2	445	114	55	1232
Wells, George F., San Francisco, Cal. Automatic organ	462,460	Nov. 3	384	94, 95	57	623
Wells, George H., Jr., assignor of one-half to S. Bloch, Lake Charles, La. Mole-trap	462,342	Nov. 3	192	49	57	587
Wells, George H., Jr., assignor of one-half to S. Bloch, Lake Charles, La. Animal-trap	462,343	Nov. 3	193	49	57	587
Wells, George W., Worcester, Mass. Railway-chair	449,867	Apr. 7	338	86	55	67
Wells, Harlan P., Amesbury, Mass. Carriage	449,841	Apr. 7	304	79	55	60
Wells, Harlan P., and O. Morrill, Amesbury, Mass. Carriage-seat	447,591	Mar. 3	524	128	54	1216
Wells, J. W. (See Brown, Junius W., assignor.)						
Wells, James E., Auburn, N. Y. Mail-pouch	458,955	Sept. 1	629	155	56	1188
Wells, James E., assignor of one-half to H. Millan and F. W. Beal, Lynn, Mass. Cash-register	466,280	Dec. 29	3644	932	57	1869
Wells, James M., Peoria, Ill. Filter	458,204	Aug. 25	2076	537	56	948
Wells, James W., <i>et al.</i> (See Brown, Junius W., assignor.)						
Wells, John L., New York, N. Y. Radiator	447,990	Mar. 10	1191	302	54	1351
Wells, Lewis S. (See Brott, George F., assignor.)						
Wells, Philip F., Milford, Mich. Cultivator	455,372	July 7	111	31	56	25
Wells, Philip R. (See Duvall, Grafton H., assignor.)						
Wells, Ruth H., Utica, N. Y. Baking-tin	457,542	Aug. 11	1017	261	56	730
Wells, Sherman, Manawa, Wis. Potato-planter	466,207	Dec. 29	3528	902	57	1847
Wells, Willet C., Fostoria, Ohio. Chain-wheel temper	451,146	Apr. 28	2327	577	55	476
Wells, William, and J. Vowles; said Wells assignor to F. Orris and M. Vowles, Milford, Mich. Scoop	448,393	Mar. 17	1853	466	54	1489
Wells, William H., Jr. (See Forslund and Wells.)						
Wells, William H., Jr., <i>et al.</i> (See Forslund, Hugo W., assignor.)						
Wells, William H., Jr., assignor of one-half to Standard Elevator Company, Chicago, Ill. Device for controlling elevators	457,844	Aug. 18	1499	390	56	832
Wells, William H., Jr., assignor of one-half to Standard Elevator Company, Chicago, Ill. Device for controlling elevators	457,845	Aug. 18	1500	390	56	833
Wells, William T., <i>et al.</i> (See Bold, William M., assignor.)						
Wells, William W., Litchfield, Minn. Feed-water heater	452,049	May 12	955	243	55	766
Welsbach, Carl A. von, Vienna, Austria-Hungary, assignor to Welsbach Incandescent Gas Light Company, of New Jersey. Strengthening mantles for transportation	463,470	Nov. 17	1991		57	954

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Welsbach Incandescent Gas Light Company. (See Welsbach, Carl A. von, assignor.)						
Welsh, Alexander A., Allegheny, Pa. Carpenter's gage	445,646	Feb. 3	206	55	54	553
Welsh, Forbes C. (See Gates and Welsh.)						
Welsh, Pierre V. W., et al. (See Martin, Frank, assignor.)						
Welsh, Pierre V. W., assignor of one-half to W. F. Freeman, New York, N. Y. Coin-operated photograph-machine	465,740	Dec. 22	2759	{ 704 705 706 }	57	1690
Welsh, Roland A. (See Nutting, Samuel E., assignor.)						
Welsh, Thomas W., Wilmerding, Pa. Casting-plant	453,056	May 26	2607	659	55	1095
Welsh, Thomas W., Wilmerding, assignor to Westinghouse Air Brake Company, Pittsburgh, Pa. Pipe-coupling	458,542	Aug. 25	2635	641	56	1055
Welsh, William. (See Eagleston, Joseph, assignor.)						
Welter, Isaac C., Luzerne, Pa. Hoisting device	451,716	May 5	413	101	55	657
Welteroth, Henry J. and J. H., Williamsport, Pa. Metal joint-fastener	461,154	Oct. 13	928	240	57	185
Welteroth, John H. (See Welteroth, Henry J. and J. H.)						
Welton, Edwin D., assignor to Scovill Manufacturing Company, Waterbury, Conn. Lac-ing-stud-setting machine	455,552	July 7	406	{ 107 108 631 632 }	56	79
Welton, Frank T., assignor of one-half to L. Kraus, Birmingham, Conn. Sowing-machine	465,547	Dec. 22	2476	{ 631 632 }	57	1635
Welton, James T., E. B. Andrus, and J. M. Pine, Evanston, Ill. Plumb and level	464,598	Dec. 8	904	222	57	1317
Welty, Henry M., Farmington, Mo. Wagon-brake	464,404	Dec. 1	617	152	57	1251
Welly, Jacob, and A. A. Leach, assignors of one-third to H. Butcher, Hayesville, Ohio. Clover-seed recleaner	447,801	Mar. 10	872	217	54	1290
Wemp, Charles P., et al. (See Grant, Daniel, assignor.)						
Wemple, George W., Boston, Mass. Attaching toe-weights to horseshoes	451,647	May 5	311	76	55	638
Wemple, George W., Boston, Mass. Horseshoe-calk	465,620	Dec. 22	2593	658	57	1656
Wendel, Carl, Groton, S. D. Winnowing-mill	460,274	Sept. 29	2726	679	56	1620
Wendel, Carl, and H. Wegner, Groton, S. D. Tire-tightener	460,275	Sept. 29	2728	679	56	1620
Wendel, Gustav O. (See Wilkinson and Wendel.)						
Wendel, Jacob H. R., Harrisburg, Pa. Carrier and cleaner	447,173	Feb. 21	2753	681	54	1071
Wendler, Alexander, Watertown, N. Y. Machine for testing paper, thread, yarn, &c.	464,766	Dec. 8	1179	293	57	1368
Wendler, Alexander, and J. Spiro, Watertown, N. Y. Apparatus for making sulphite lye	464,652	Feb. 17	1869	464	54	895
Wenger, Abraham R. (See Siple and Wenger.)						
Wenker, Raymond J., Watertown, Wis. Dental plate	444,622	Jan. 13	1001	261	54	207
Wennberg, Gustaf E. (See Hallqvist and Wennberg.)						
Wenning, Edward. (See Bartholomew, George E., assignor.)						
Wenstrom Consolidated Dynamo and Motor Company of Baltimore City. (See Parshall, Horace F., assignor.)						
Wenström, Jonas, Orebro, Sweden, assignor of two-thirds to O. Wenström and W. W. Manning, Marquette, Mich. Electro-magnetic ore-separator	455,808	July 14	840	221	56	169
Wenström, Jonas, Orebro, Sweden, assignor of two-thirds to O. Wenström and W. W. Manning, Marquette, Mich. Magnetic separator	455,809	July 14	843	222	56	170
Wenström, Olof, et al. (See Wenström, Jonas, assignor.)						
Wenstrom, Wilhelm, Orebro, Sweden. Railway chair and tie	458,988	Sept. 1	685	167	56	1199
Wentworth, Barton M. (See Hobbs and Wentworth.)						
Wentworth, Charles A., Hyde Park, Mass. Sole-machine	447,389	Mar. 3	186	49	54	1153
Wentz, Charles H., South Charleston, Ohio. Sweat-pad fastener	445,590	Feb. 3	114	29	54	533
Wenzel, Adam, Dakota, Nebr. Corn-planter	465,402	Dec. 15	2231	572	57	1578
Werel, John. (See Pelzer and Werel.)						
Werner, Charles. (See Schmidt, Merunka, and Werner.)						
Werner, Charles J. (See Schmidt, Merunka, and Werner.)						
Werner, Emil, Philadelphia, Pa. Apparatus for cable-crossings	449,985	Apr. 7	504	126	55	98
Werner, Fred P., assignor of one-half to F. E. Augustin, Chicago, Ill. Valve for steam and basin cocks	459,728	Sept. 15	1879	473	56	1444
Werner, Frederic C., Watertown, Wis. Twine-reel	444,866	Jan. 20	1430	372	54	295
Werner, Frederick W. (See Titus and Werner.)						
Werner, John Brooklyn, N. Y. Stove	451,284	Apr. 28	2571	634	55	523
Werner, John A., Chicago, Ill. Scale attachment	449,986	Apr. 7	506	126	55	98
Werner, John C., Baldwin, assignor of two-thirds to T. B. McKaig and J. M. Patterson, Pittsburgh, Pa. Mining-machine	465,150	Dec. 15	1826	463	57	1500
Werner, John H., and S. Flory, Bangor, Pa. Pressure-regulator	465,956	Dec. 29	3115	797	57	1767
Werner, Louis G., assignor of three-fifths to M. C. Fullenwider and J. W. Chase, Des Moines, Iowa. Clipping-shears	448,170	Mar. 10	1449	370	54	1403
Wert, Henry J. F., Auburn, Nebr. Hand-stamp	458,085	Aug. 18	1883	491	56	906
Wertheimer, Bernhard, Karlsruhe, Germany. Cigar-bunching machine	460,415	Sept. 29	2931	{ 733 734 }	56	1659
Wertz, John W., et al. (See Croft, David B., assignor.)						
Wertz, Xavier, New York, N. Y. Electric-arc lamp	457,141	Aug. 4	319	82	56	594
Wescott, Dayn E., et al. (See Crabtree, Leonard T., assignor.)						
Weser, Calvin L., New York, N. Y. Pedal-action for piano-fortes	448,308	Mar. 17	1710	{ 433 434 613 614 }	54	1462
Weser, Calvin L., New York, N. Y. Tone-regulator for piano-fortes	465,505	Dec. 22	2396	{ 613 614 }	57	1619
Weser, Calvin L., New York, N. Y. Upright piano	465,506	Dec. 22	2401	614	57	1620
Wesler, Henry H., Newark, N. J. Toy detonator	450,345	Apr. 14	1062	261	55	210
Wessel, Ferdinand A., Brooklyn, N. Y. Electro-magnet	449,358	Mar. 31	3394	854	54	1794
Wessel, Ferdinand A., assignor of one-half to A. Giese, Brooklyn, N. Y. Mechanism for carrying wires through conduits	450,206	Apr. 14	823	{ 207 208 }	55	166
Wessel, Ferdinand A., Brooklyn, assignor to Excelsior Electric Company, New York, N. Y. Dynamo-electric machine or motor	452,420	May 19	1581	392	55	890
Wessel, Ferdinand A., Brooklyn, assignor to Excelsior Electric Company, New York, N. Y. Switch for electric motors	453,318	June 2	216	57	55	1188
Wessel, Ferdinand A., Brooklyn, assignor to Excelsior Electric Company, New York, N. Y. Automatic starting switch for electric motors	453,319	June 2	217	57	55	1189
Wessel, Ferdinand A., Brooklyn, assignor to Excelsior Electric Company, New York, N. Y. Automatic starting switch for electric motors	453,320	June 2	219	57	55	1189
Wessel, Ferdinand A., Brooklyn, assignor to Excelsior Electric Company, New York, N. Y. Armature for dynamos or motors and winding the same	457,065	Aug. 4	211	{ 51 52 }	56	573
Wessel, Julius. (See Russ, Alfred, assignor.)						
Wesson, Daniel B., Springfield, Mass. Safety-lock mechanism for fire-arms. (Reissue)	11,191	Sept. 15	1887	475	56	1446
Wesson, Daniel B., Springfield, Mass. Safety-lock mechanism for fire-arms. (Reissue)	11,192	Sept. 15	1888	475	56	1446
Wesson, Joseph H. (See Cranston and Wesson.)						
Wesson, Joseph H., Springfield, Mass. Barrel-catch for revolvers	456,179	July 21	1382	366	56	282
Wesson, Wiley B., Fort Worth, Tex. Letter-box	455,373	July 7	113	32	56	26

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West, Adoniram J., Chicago, Ill. Feeder for charging liquid with chemicals	452,172	May 12	1187	300	55	805
West, Charles F., Pioneer, Ohio. Pumping attachment for windmills	464,446	Dec. 1	673	165	57	1263
West, Charles F., Alvordton, assignor of one-half to L. E. Connell, Pioneer, Ohio. Pipe-wrench	448,619	Mar. 17	2203	551	54	1556
West, Charles W., Grain Valley, Mo. Wire-stretcher	457,943	Aug. 18	1677	439	56	865
West, Derrick S., Auburn, Me. Wheel	454,315	June 16	1696	443	55	1488
West, Elbridge G., assignor of one-half to A. C. Robison, Canandaigua, N. Y. Conductor cut-off	445,516	Jan. 27	2426	633	54	498
West, Elbridge G., assignor of one-half to A. C. Robison, Canandaigua, N. Y. Stove-pipe thimble	449,060	Mar. 24	2894	734	54	1696
West, Eugene B., <i>et al.</i> , executors. (See West, Larkin N.)						
West, F. B., <i>et al.</i> (See Waterman, John, assignor.)						
West, George M., Monmouth, Ill. Combined harrow and roller	454,098	June 16	1380	360	55	1436
West, Isaac N., Bloomington, Ill. Whiffletree attachment for vehicles	460,356	Sept. 29	2857	712	56	1645
West, James, assignor of one-half to S. Cupples, St. Louis, Mo. Apparatus for delivering paper articles	448,285	Mar. 17	1672	424	54	1455
West, James, assignor of one-half to S. Cupples, St. Louis, Mo. Machine for making paper bags	461,599	Oct. 20	1718	{ 420 421 }	{ 57 57 }	{ 344 344 }
West, James, assignor of one-half to S. Cupples, St. Louis, Mo. Cutter-roll	461,600	Oct. 20	1720	421	57	344
West, James, assignor of one-half to S. Cupples, St. Louis, Mo. Envelope	461,724	Oct. 20	1921	475	57	381
West, James R., Evansville, Wis. Card holder or slide	447,708	Mar. 3	687	171	54	1248
West, Jay H., Chicago, Ill. Knife and pencil sharpener	445,212	Jan. 27	1985	512	54	412
West, John, <i>et al.</i> (See Allen, Albert F., assignor.)						
West, John C., assignor of one-half to J. Peachey, Simcoe, Canada. Steam warping-scow	454,632	June 23	2217	571	55	1591
West, John P., Osgood, Mo. Weighing-scale	446,309	Feb. 10	1337	325	54	777
West, Jonathan B., Rochester, N. Y. Gage for tire-setters	444,165	Jan. 6	307	74	54	62
West, Jonathan B., Rochester, N. Y. Tire-setting machine	444,166	Jan. 6	309	74	54	63
West, Jonathan B., Rochester, N. Y. Machine for setting tires	444,175	Jan. 6	324	79	54	66
West, Jonathan B., Rochester, N. Y. Vehicle-wheel	463,181	Nov. 17	1533	400	57	865
West, Josiah E. (See Laraway, George W., assignor.)						
West, Larkin N., deceased; E. B. West, Leesville, and W. D. Finney, Wrightsborough, Tex., executors. Window-curtain holder	448,565	Mar. 17	2109	528	54	1538
West, Marshall O., Port Chester, N. Y. Drawers	453,874	June 9	1069	279	55	1359
West, Mary, <i>et al.</i> (See West, William, assignor.) (Reissue.)						
West, Mary E. (See Kimball and West.)						
West, Noah D., Middleburg, N. Y. Queen-cell protector and queen-cage	465,010	Dec. 15	1578	403	57	1456
West, William, assignor of one-half to J. E. Clemmons, Denver, Colo. Treating zinc ores	444,997	Jan. 20	1649	422	54	338
West, William, assignor of one-half to J. E. Clemmons, Denver, Colo. Hearth-furnace for treating zinc ores	445,124	Jan. 20	1837	476	54	374
West, William, assignor to J. E. Clemmons and M. West, Denver, Colo. Treating zinc ores. (Reissue)	11,188	Sept. 8	1325	332	56	1332
Westaway, Walter C., Decorah, Iowa. Pipe-coupling	454,690	June 23	2297	588	55	1607
Westaway, Walter C., Decorah, Iowa. Gearing for windmills	455,423	July 7	203	52	56	42
Westaway, Walter C., Decorah, Iowa. Metal tower	455,424	July 7	204	52	56	42
Westaway, Walter C., Decorah, Iowa. Mandrel for casting chilled pipes	465,035	Dec. 15	1623	413	57	1464
Westaway, Walter C., assignor of one-half to H. C. Goddard and G. I. Leonard, Decorah, Iowa. Eyeglasses	449,605	Mar. 31	3793	952	54	1871
Westaway, Walter C., and L. W. Beard, Decorah, Iowa. Joint-connection for metal framework	454,691	June 23	2298	589	55	1607
Westaway, Walter C., and G. I. Leonard, Decorah, Iowa. Speed-indicator	456,919	July 28	2617	687	56	521
Westbrook, Frank A., Port Jervis, and W. S. Cook, Otisville, N. Y. Car-coupling	456,509	July 21	1919	507	56	382
Westbrook, Frank A., Port Jervis, and W. S. Cook, Otisville, N. Y. Car-coupling	457,468	Aug. 11	898	232	56	706
Westbrook, Henry, and R. Burns, Woodstock, Canada. Screw-cutting device	451,790	May 5	530	130	55	679
Westerfield, George W., Jr., assignor to F. W. Devoe & Company, New York, N. Y. Easel attachment	462,420	Nov. 3	327	80	57	613
Westerfield, Newton C., assignor to himself, F. W. Stahler, and W. B. Drummond, Hastings, Minn. Scalper and grader	458,246	Aug. 25	2148	526	56	962
Westermann, George. (See Kiekenapp, Frederick H., assignor.)						
Westermann, William, assignor to Louisville Chair Company, Louisville, Ky. Seat-spring for cushioned seats	447,142	Feb. 24	2704	670	54	1062
Western Electric Company. (See Goodridge, William M., assignor.)						
Western Electric Company. (See Haskins, Charles D., assignor.)						
Western Electric Company. (See McKivitt, William E., assignor.)						
Western Electric Company. (See O'Connell, Joseph J., assignor.)						
Western Electric Company. (See Patterson, William R., assignor.)						
Western Electric Company. (See Scribner, Charles E., assignor.)						
Western Electric Company. (See Thompson, William C., assignor.)						
Western Electric Company. (See Warner, Ernest P., assignor.)						
Western Iron Works <i>et al.</i> (See Clark, Edward W., assignor.)						
Western Mineral Wool and Insulating Fibre Company. (See Rockwell, Charles H., assignor.)						
Western Planter Manufacturing Company. (See Tyden and Dover, assignors.)						
Western Smoke Preventer Company. (See Smith, Robert D., assignor.)						
Western Union Telegraph Company. (See Edison, Thomas A., assignor.)						
Westervelt, Benjamin J., assignor to Buda Iron Works, Buda, Ill. Car-wheel	462,872	Nov. 10	1040	269	57	761
Westervelt, Edmund C. (See Clapp and Westervelt.)						
Westervelt, Edmund C., and C. W. Clapp, South Bend, Ind. Plow-colter	458,086	Aug. 18	1884	491	56	906
Westfall, Columbus J. (See Ennis and Westfall.)						
Westinghouse Air Brake Company. (See Bayley, Richard W., assignor.) (Reissue.)						
Westinghouse Air Brake Company. (See Clark, Francis L., assignor.)						
Westinghouse Air Brake Company. (See Hogan, Thomas J., assignor.)						
Westinghouse Air Brake Company. (See Moore, Frank, assignor.)						
Westinghouse Air Brake Company. (See Welsh, Thomas W., assignor.)						
Westinghouse Air Brake Company. (See Westinghouse and Bayley, assignors.)						
Westinghouse, Church, Kerr & Company. (See Longwell, Henry E., assignor.)						
Westinghouse Electric and Manufacturing Company. (See Hopkinson, John, assignor.)						
Westinghouse Electric and Manufacturing Company. (See Lange, Philip, assignor.)						
Westinghouse Electric and Manufacturing Company. (See Reimann, Albert L., assignor.)						
Westinghouse Electric and Manufacturing Company. (See Shallenberger, Oliver B., assignor.)						
Westinghouse Electric and Manufacturing Company. (See Stanley, William, Jr., assignor.)						
Westinghouse Electric and Manufacturing Company. (See Wurts, Alexander, assignor.)						
Westinghouse, George, Jr., Pittsburgh, Pa. Air-brake	448,827	Mar. 24	2539	637	54	1627

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Westinghouse, George, Jr., Pittsburg, Pa. Electric locomotor.....	450,652	Apr. 21	1567	376	55	322
Westinghouse, George, Jr., Pittsburg, Pa. Pipe-coupling	454,129	June 16	1420	371 372	55	1434
Westinghouse, George, Jr., Pittsburg, Pa. Rotary engine.....	455,028	June 30	2901	737 738	55	1728
Westinghouse, George, Jr., Pittsburg, Pa. Piston.....	455,029	June 30	2905	738 739	55	1729
Westinghouse, George, Jr., and J. G. Schrender, Pittsburg, Pa. Switch and signal apparatus.....	446,159	Feb. 10	1065	262 263 264	54	725
Westinghouse, Henry H., and R. W. Bayley, assignors to Westinghouse Air-Brake Company, Pittsburg, Pa. Air-brake for cars.....	461,779	Oct. 20	2014	496 497	57	399
Westman, George L., and J. Delarue, Richmond, Va. Cigar-bunching machine.....	446,989	Feb. 24	2419	601 602	54	1010
Weston, Austin M. (See Weston, James A. and A. M.)						
Weston, Charles H., Yarmouthville, Me. Press.....	458,650	Sept. 1	163	38	56	1097
Weston & Co., William H. (See Castor, Lewis D., assignor.)						
Weston, David M., deceased; A. Rnss and M. J. Weston, Boston, Mass., executors. Creaming-machine.....	446,210	Feb. 10	1156	283 284	54	740
Weston, Edward, Newark, N. J. Potential indicator.....	444,803	Jan. 13	1286	334	54	259
Weston, Edward, Newark, N. J. Electrical measuring-instrument.....	444,804	Jan. 13	1289	334 335	54	260
Weston, Edward, Newark, N. J. Electric measuring-instrument.....	444,805	Jan. 13	1291	335	54	261
Weston, Edward, Newark, N. J. Rheostat.....	446,490	Feb. 17	1624	398	54	848
Weston, Edward, Newark, N. J. Electrical measuring-instrument.....	446,491	Feb. 17	1626	398	54	848
Weston, Edward, Newark, N. J. Electrical measuring-instrument.....	446,492	Feb. 17	1627	398	54	848
Weston, Edward, Newark, N. J. Electrical measuring-instrument.....	446,493	Feb. 17	1629	399 400	54	849
Weston, Edward, Newark, N. J. Electrical measuring-instrument.....	446,494	Feb. 17	1632	400	54	850
Weston, Edward, Newark, N. J. Electrical measuring-instrument.....	452,326	May 12	1431	353 354	55	851
Weston, Edward, Newark, N. J. Electrical indicating-instrument.....	465,442	Dec. 15	2288	587	57	1590
Weston, Edward, Newark, N. J. Temperature-regulating device for electrical circuits.....	466,087	Dec. 29	3348	855	57	1813
Weston, Edward, assignor to Weston Electrical Instrument Company, Newark, N. J. Electrical measuring-instrument.....	446,489	Feb. 17	1622	397	54	847
Weston Electrical Instrument Company. (See Weston, Edward, assignor.)						
Weston Engine Company. (See Longenecker, Charles K., assignor.)						
Weston, Erastus D., Wakefield, Mass. Hot-water heater or boiler.....	456,747	July 28	2329	614	56	469
Weston, George H., Boston, Mass. Rotary engine.....	449,148	Mar. 31	3036	768	54	1731
Weston, James A. and A. M., Frankfort, Kans. Washing-machine.....	464,181	Dec. 1	260	64	57	1185
Weston, Mary J., et al., executors. (See Weston, David M.)						
Westphal, Henry, Chicago, Ill. Screw-case.....	465,621	Dec. 22	2594	659	57	1656
Westphal, Paul, Potsdam, near Berlin, Germany. Cash drawer and recorder.....	450,439	Apr. 14	1210	295	55	237
Westwood, Amos, and P. L. Mallon, Oakland, Cal.; said Westwood assignor to said Mallon. Decorating glass and porcelain.....	447,991	Mar. 10	1192		54	1351
Wetherbee, Frank W., Waltham, Mass., assignor to American Waltham Watch Company, of Massachusetts. Apparatus for enameling dials.....	452,150	May 12	1140	289	55	796
Wetherbee, George C. (See Strickel, Louis, assignor.)						
Wetherell, Herman O. (See Dyson, John H., assignor.)						
Wetmore, Jean A., Brooklyn, N. Y. Trolley-wheel for electric railways.....	459,848	Sept. 22	2066	519	56	1488
Wetter, Joseph. (See Geary, Thomas F., assignor.)						
Wetter, Joseph. (See Hammer, Reinhold, assignor.)						
Wetz, Carrie A., Dayton, Ohio. Music-book holder.....	445,591	Feb. 3	115	29	54	533
Wenste, Christian, Duisburg, Germany. Electric contact apparatus.....	459,323	Sept. 8	1209	295 296	56	1309
Wever, Fritz, Chemnitz, Germany. Apparatus for drying wool or other fibrous material.....	462,184	Oct. 27	2651	663 664	57	530
Wever, Sebern J., Irvington, Ill. Wrench.....	462,421	Nov. 3	328	80	57	613
Wexler, George. (See Clark and Wexler.)						
Wexler, George, New York, N. Y. Clock-case.....	462,344	Nov. 3	194	49	57	588
Weyandt, Fred, Jr., Dunmore, Pa. Road-cart.....	446,310	Feb. 10	1338	326	54	777
Weyer, Jules A., deceased, Celina, Ohio; L. J. King administrator. Glass-furnace.....	452,462	May 19	1667	417 418	55	905
Weymouth Lock Company. (See Weymouth, Sanford K., assignor.)						
Weymouth, Sanford K., assignor to Weymouth Lock Company, Gardiner, Me. Combination-lock.....	450,207	Apr. 14	826	208	55	167
Whaite, George M. (See Swan and Whaite.)						
Whaley, Frank T. (See Lewis and Whaley.)						
Whaley, Moss T., Hawley, Minn. Ox-collar.....	464,539	Dec. 8	822	202	57	1301
Wham, Steuben D., Salem, Ill. Car-coupling.....	459,030	Sept. 1	760	185	56	1121
Wharton and Company, William, Jr. (See Angerer, Victor, assignor.)						
Wharton, Bloomfield, assignor of one-third to G. Hall, Lima, Ohio. Attachment for anvils.....	465,208	Dec. 29	3529	903	57	1847
Wharton, E. P., et al. (See Rothrock, Charles N., assignor.)						
Wharton, Richard, assignor of five-eighths to J. B. Patterson, Philadelphia, Pa. Donp-heddle for looms.....	456,180	July 21	1384	367	56	282
Wharton, Samuel C., South Bend, Ind. Sully.....	455,781	July 14	791	207	56	161
Whayne, Mercer W. (See Reno and Whayne.)						
Whealen, Charles. (See Seybold and Whealen.)						
Wheatland Iron Company. (See Maddock, William H., assignor.)						
Wheatley, Samuel E., and J. W. Schlosser, assignors to Wheelless Electric Railway Company, Washington, D. C. Electric railway.....	457,240	Aug. 4	485	128 129	56	624
Wheatley, Samuel E., and J. W. Schlosser, assignors to Wheelless Electric Railway Company, Washington, D. C. Electric-railway system.....	457,944	Aug. 18	1672	439 440	56	865
Wheatly, George W., Harrodsburg, Ky. Washing-machine.....	446,906	Feb. 24	2298	572	54	927
Wheelan, Fairfax H., Santa Barbara, Cal. Separator.....	448,394	Mar. 17	1854	466	54	1489
Wheeler, Cephas E., Hopkinton, Mass., assignor to Campbell Machine Company, Pawtucket, R. I. Sewing-machine.....	446,398	Feb. 10	1467	361	54	804
Wheeler, Clarence L., assignor of one-half to J. W. Clark, Marion, Ind. Car-seal.....	446,107	Feb. 10	972	239	54	708
Wheeler, Clarence L., assignor of one-half to J. W. Clark, Marion, Ind. Car-seal.....	446,653	Feb. 17	1870	464	54	895
Wheeler, Cyrenus, Jr. (See Miller, Charles, assignor.)						
Wheeler, Cyrenus, Jr., Auburn, N. Y. Clothes-wringer.....	459,244	Sept. 8	1096	267 268	56	1285
Wheeler, Cyrenus, Jr., Auburn, N. Y. Clothes-wringer.....	459,339	Sept. 8	1243	306	56	1315
Wheeler, Cyrenus, Jr., Auburn, N. Y. Clothes-wringer.....	459,340	Sept. 8	1246	307	56	1315

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Wheeler, Cyrenus, Jr., Auburn, N. Y. Clothes-wringer.....	459,343	Sept. 8	1251	308	56	1316
Wheeler, E. G. (See Anderson, Charles C., assignor.)						
Wheeler, E. G. (See Clawson, Linus G., assignor.)						
Wheeler, Earl A., Sharon, Pa. Boiler-furnace.....	465,303	Dec. 15	2064	528	57	1546
Wheeler, Earl A., Sharon, Pa. Boiler-furnace.....	465,304	Dec. 15	2065	528	57	1546
Wheeler, Elono S., Jr., Sangatuck, Conn. Car-seal.....	460,766	Oct. 6	368	91	57	72
Wheeler, Eugene J., Millington, Tenn. Knife-grinding machine.....	463,017	Nov. 10	1258	326 327	57	804
Wheeler, Frank, Meriden, Conn. Electric conductor.....	453,225	June 2	66	17	55	1161
Wheeler, Frank C., et al. (See Van Stone, Edwin D., assignor.)						
Wheeler, Frank E., et al. (See Van Stone, Edwin D., assignor.)						
Wheeler, Frederick G., New York, N. Y. System of street-car propulsion.....	453,525	June 2	543	139 140	55	1250
Wheeler, Frederick G., New York, N. Y. System of street-car propulsion. (Reissue)....	11,211	Dec. 22	2892	739 740	57	1716
Wheeler, Frederick G., New York, assignor to A. H. Dailey, Brooklyn, N. Y. Steam-gen- erator for street-cars. (Reissue).....	11,212	Dec. 22	2893	740 741	57	1717
Wheeler, George K., Chicago, Ill. Insulator.....	448,395	Mar. 17	1856	466	54	1489
Wheeler, George K., Chicago, Ill. Support for trolley-wires.....	453,070	May 26	2632	664	55	1099
Wheeler, George K., Chicago, Ill., assignor to Thomson-Houston Electric Company, of Connecticut. Electric connector.....	449,721	Apr. 7	117	30	55	25
Wheeler, George K., Chicago, Ill., assignor to Thomson-Houston Electric Company, of Connecticut. Multiple-fuse cut-out.....	463,764	Nov. 24	2466	644	57	1051
Wheeler, Henry C., and C. O. Salathie, South Bend, Ind. Adjustable platform for chairs.....	464,618	Dec. 8	937	221	57	1324
Wheeler, Henry F., Boston, Mass. Cylinder-stop for revolvers.....	458,687	Sept. 1	220	51	56	1108
Wheeler, Henry T., Lowell, Mass. Cutting and draining board.....	454,552	June 23	2063	534	55	1565
Wheeler, John M., Toledo, Ohio. Blacking-case.....	450,440	Apr. 14	1212	295	55	237
Wheeler, John M., Toledo, Ohio. Puzzle.....	450,653	Apr. 21	1568	377	55	323
Wheeler, L. J., et al. (See Wheeler, Richard, assignor.)						
Wheeler, Morris J., Bridgeport, Conn. Machine for sharpening saws.....	458,205	Aug. 25	2078	537 538	56	948
Wheeler, Nathan A., Alpowa, Wash. Calendar.....	445,484	Jan. 27	2379	619	54	489
Wheeler, Nathan A., Alpowa, Wash. Scissors.....	456,870	July 28	2528	664	56	505
Wheeler Novelty Company. (See Wheeler, Orrin A., assignor.)						
Wheeler, Orrin A., Chicago, Ill. Vending-machine.....	466,313	Dec. 29	3702	944 945	57	1880
Wheeler, Orrin A., assignor to American Cigar Vender Company, Chicago, Ill. Vending- machine.....	447,037	Feb. 24	2510	623 624	54	1026
Wheeler, Orrin A., assignor to Wheeler Novelty Company, Chicago, Ill. Castanet.....	464,684	Dec. 8	1048	262	57	1344
Wheeler, Paris H., Washington, D. C. Puzzle.....	447,418	Mar. 3	238	61	54	1162
Wheeler, Richard, assignor to L. J. Wheeler and E. H. Gould, San Francisco, Cal. In- secticide.....	460,227	Sept. 29	2646		56	1605
Wheeler, Robinson H., Saugatuck, Conn. Button-setting machine.....	455,553	July 7	411	109	56	80
Wheeler, Robinson H., Saugatuck, Conn. Button fastener.....	462,023	Oct. 27	2102	596	57	483
Wheeler, Roscoe B. (See Collins, George, assignor.)						
Wheeler, Roscoe B. (See Wright, William R., assignor.)						
Wheeler, Russell, et al. (See Van Stone, Edwin D., assignor.)						
Wheeler, Schuyler S., New York, N. Y. Automatic cut-out for electric motors.....	464,948	Dec. 8	1445	363	57	1422
Wheeler, Schuyler S., assignor to Crocker-Wheeler Electric Motor Company, New York, N. Y. Electric motor or dynamo-electric machine.....	451,884	May 5	664	168	55	705
Wheeler, Schuyler S., assignor to Crocker-Wheeler Electric Motor Company, New York, N. Y. Constructing field-magnets of electric motors.....	451,885	May 5	665	169	55	705
Wheeler, Schuyler S., assignor to Crocker-Wheeler Electric Motor Company, New York, N. Y. Automatic regulator for electric motors or dynamo-electric machines.....	455,267	June 30	3294	834 835	55	1804
Wheeler, Schuyler S., assignor to Crocker-Wheeler Electric Motor Company, New York, N. Y. Controlling-switch for electric motors.....	460,076	Sept. 22	2412	603 604	56	1552
Wheeler, Schuyler S., and C. S. Bradley, New York, N. Y., assignors to said Wheeler, trustee. Electric transportation system.....	448,598	Mar. 17	2167	541 542	54	1548
Wheeler, Seth, Albany, N. Y. Toilet-paper fixture.....	445,436	Jan. 27	2311	600	54	477
Wheeler, Seth, Albany, N. Y. Toilet-paper fixture.....	447,419	Mar. 3	239	61	54	1162
Wheeler, Seth, Albany, N. Y. Wrapping or toilet paper roll.....	454,316	June 16	1697	443	55	1489
Wheeler, Seth, Albany, N. Y. Toilet-paper fixture.....	454,317	June 16	1698	444	55	1489
Wheeler, Seth, Albany, N. Y. Wrapping or toilet paper roll.....	459,516	Sept. 15	1532	383	56	1378
Wheeler, Seth, Albany, N. Y. Toilet-paper roll.....	465,588	Dec. 22	2543	648	57	1647
Wheeler, Talton E., Garrard County, Ky. Truss.....	444,899	Jan. 20	1479	382	54	305
Wheeler, William, Terrell, Tex. Pedal attachment for velocipedes.....	458,608	Sept. 1	93	21	56	1084
Wheeler, William E. (See White, Alexander, assignor.)						
Wheeler, William H., Sciotoville, Ohio. Dredging-machine.....	445,268	Jan. 27	2075	535	54	429
Wheeler, William H., assignor of one-third to W. Wight, Cleveland, Ohio. Device for operating gates to elevator-wells.....	460,788	Oct. 6	405	98	57	80
Wheeler, Willis A., Marlborough, Mass. Throat-plate for sewing-machines.....	452,819	May 26	2219	556	55	1020
Wheeler & Wilson Manufacturing Company. (See Dial, Wilbur F., assignor.)						
Wheeler & Wilson Manufacturing Company. (See Dimond, George H., assignor.)						
Wheeler & Wilson Manufacturing Company. (See Hill, George S., assignor.)						
Wheeler & Wilson Manufacturing Company. (See Laubscher, Alexander, assignor.)						
Wheeler & Wilson Manufacturing Company. (See Ostrom, Freeland W., assignor.)						
Wheeling Corrugating Company. (See Ewing, Edwin C., assignor.)						
Wheeling Corrugating Company. (See Ewing, John H., assignor.)						
Wheelock, Aaron L., Buffalo, N. Y. Vegetable-cleaner.....	465,036	Dec. 15	1624	413	57	1464
Wheelock, Jerome, Worcester, Mass. Metallic ring-packing.....	452,900	May 26	2350	595	55	1014
Wheelock, Jerome, Worcester, Mass. Valve and seat for steam-engines.....	455,810	July 14	846	232	56	170
Wheelwright, Frederick D., Washington, D. C., assignor of one-half to T. S. Wheelwright, Richmond, Va. Coffee or tea pot.....	450,208	Apr. 14	829	208	55	167
Wheelwright, Thomas S. (See Wheelwright, Frederick D., assignor.)						
Whelan, Andrew, South Orange, N. J. Indicating-funnel.....	454,240	June 16	1583	417	55	1467
Whelan, Charles A., Aspen, Colo. Letter-box.....	449,149	Mar. 31	3037	768	54	1731
Wheelless Electric Railway Company. (See Wheatley and Schlosser, assignors.)						
Whiddit, William W., Newburg, N. Y. Filter.....	444,623	Jan. 13	1002	261	54	207
Whiddit, William W., Newburg, N. Y. Recarbonizer for filters.....	450,209	Apr. 14	830	209	55	168
Whiddit, William W., Newburg, N. Y. Filter.....	461,004	Oct. 13	716	185	57	146
Whiffen-Lake Lasting Machine Company. (See Lake, David, assignor.)						
Whiles, Marian, assignor of one-half to J. D. Switzer, Woodville, Mo. Hay-rack.....	461,947	Oct. 27	2291	567	57	462
Whinery, Samuel, Cincinnati, Ohio. Portable paving plant.....	451,989	May 12	847	216 217	55	747

Alphabetical list of patentees—Continued.

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Whipple, Caroline A., London, England. Felting-machine	460,805	Oct. 6	423	105	57	84
Whipple, Charles E., Severy, Kans. Sash-balance	452,297	May 12	1368	341	55	841
Whipple, Chauncey F., Nevinville, Iowa. Well-boring machine	447,592	Mar. 3	525	129	54	1216
Whipple, Effinger E., St. John's, Mich. Tooth-seat	445,104	Jan. 20	1810	467	54	369
Whipple, Effinger E., St. John's, Mich. Harrow	452,724	May 19	2068	521	55	982
Whipple, Effinger E., St. John's, Mich. Harrow	464,345	Dec. 1	534	130	57	1235
Whipple, Eugene D. (See Igoo and Whipple.)	464,346	Dec. 1	537	131	57	1236
Whipple, Fenner E., Philadelphia, assignor to T. H. and G. A. Dallett, Cheyney, Pa. Automatic switch for electric motors	450,441	Apr. 14	1213	296	55	237
Whipple, George E., assignor of one-half to J. Noble, Jr., Westfield, Mass. Whip	452,327	May 12	1433	354	55	852
Whipple, William N., Dresden, N. Y. Rotary steam-engine	465,907	Dec. 29	3038	778	57	1753
Whitaker, Albert S., <i>et al.</i> (See Davis, Hiram B., assignor.)						
Whitaker, Channing. (See Canning and Whitaker.)						
Whitaker, Channing, Tyngsborough, assignor to Lowell Machine Shop, Lowell, Mass. Card-ing-engine	451,351	Apr. 28	2662	659 660	55	541
Whitaker, David L. (See McLaurin and Whitaker.)						
Whitaker, Edward N., Anderson, Ind. Valve	463,431	Nov. 17	1932	504	57	941
Whitaker, Henry B. (See Matteson, James A., assignor.)						
Whitaker, John H., Davenport, Iowa. Horse-training harness	444,032	Jan. 6	81	21	54	19
Whitaker, John H., Davenport, Iowa. Road-cart	444,033	Jan. 6	82	21, 22	54	20
Whitaker, John H., Davenport, Iowa. Harness	461,210	Oct. 13	1031	261	57	204
Whitaker, John H., Davenport, Iowa. Harness	466,109	Dec. 29	3376	862	57	1818
Whitaker, John H., Davenport, Iowa. Road-cart	466,110	Dec. 29	3377	863	57	1818
Whitby, William H., San Marcos, Tex. Snap-hook	463,928	Nov. 24	2730	708	57	1101
Whitcher, Charles F. (See Schoonover, James S., assignor.)						
Whitcher, Frank W., Boston, Mass. Lasting-pinchers	455,892	July 14	959	251	56	193
Whitcomb Envelope Company. (See Dennis, Metcalfe, and Sherman, assignors.)						
Whitcomb, Joseph S., San Francisco, Cal. Excavating apparatus	452,492	May 19	1703	429	55	911
Whitcomb, Josiah T. (See Taylor, Carlo R., assignor.)						
Whitcomb, Truman H., <i>et al.</i> (See June, Marcus M., assignor.)						
White, Albert, Lowell, Mass. Egg-beater	449,187	Mar. 31	3100	782	54	1743
White, Albert M. (See Pomeroy and White.)						
White, Albert P., assignor of one-half to J. H. Lowe, New Bedford, Mass. Window-ventilator	462,368	Nov. 3	241	59	57	596
White, Alexander, Geneseo, assignor of one-half to W. E. Wheeler, Chicago, Ill. Portable heat-generator	463,559	Nov. 17	2128	562	57	980
White, Alfred L., and D. M. Miller, Suisun, Cal. Automatic pumping apparatus	452,628	May 19	1916	481	55	952
White, Anthony C. (See Hayes and White.)						
White, Anthony C., assignor to American Bell Telephone Company, Boston, Mass. Trans-mitter-circuit	447,220	Feb. 24	2835	703	54	1088
White, Archibald W., San José, Cal. Pump	459,529	Sept. 15	1556	387 388	56	1383
White, Bruce C., assignor of two-thirds to S. S. Chisholm and J. A. Boyd, Chicago, Ill. Brick-making machine	455,374	July 7	115	32, 33	56	26
White, C. T., <i>et al.</i> (See Dunn, John P., assignor.)						
White, Cassius A. (See Wardwell and White.)						
White, Cassius A., Jamaica, Vt. Mop-wringer	456,666	July 28	2184	579	56	442
White, Charles A., Ossipee, N. H. Liquid-measuring vessel	455,554	July 7	412	109	56	80
White, Charles E., Burlington, Wis. Horse-collar fastener	458,824	Sept. 22	2032	509	56	1481
White, Charles H., New York, N. Y. Gong	466,129	Dec. 29	3418	875	57	1826
White, Charles R., assignor of one-half to I. Crocker, Portland, Me. Fish-basket	454,241	June 16	1584	417	55	1467
White, Charles W., New York, N. Y. Fire-proof partition	449,019	Mar. 24	2829	717	54	1683
White, Clarence O., and M. B. Lloyd, assignors to Woven Wire Machinery Company, Minneapolis, Minn. Apparatus for weaving coiled-wire fabrics	461,695	Oct. 20	1878	465 466	57	373
White, Cullen D., assignor of one-half to B. W. Etheridge, Dresden, Tenn. Agricultural machine	455,676	July 7	606	159	56	118
White, Daniel J., <i>et al.</i> (See Guess, Carl H., assignor.)						
White, David S., Northfield, Minn. Hoisting apparatus	461,005	Oct. 13	717	185	57	146
White, Eli, Sodun, N. Y. Folding hay-rack	461,227	Oct. 13	1064	269	57	212
White, Ernest. (See Sporton and White.)						
White, F. H., <i>et al.</i> (See Parker, James, assignor.)						
White, F. K., <i>et al.</i> (See Parker, James, assignor.)						
White, F. R., <i>et al.</i> (See Kimpton, Charles A., assignor.)						
White, Ferris M. (See Brice, Alfred L., assignor.)						
White, Frank, Pomona, Cal. Snap-hook	451,314	Apr. 28	2610	644	55	531
White, Frank P., Shalotte, N. C. Mop-head	447,650	Mar. 3	611	151	54	1233
White, Frank R. (See Platt and White.)						
White, Franklin R., assignor to Patent Button Company, Waterbury, Conn. Button	459,483	Sept. 15	1481	372	56	1369
White, Frederick L., <i>et al.</i> (See Bennett, Josiah C., assignor.)						
White, George, Rock Island, Ill. Vehicle-pole	456,181	July 21	1385	367	56	282
White, George, assignor to C. L. Rowland, trustee, Brooklyn, N. Y. Engine	454,192	June 16	1516	398	55	1453
White, George A., Boston, Mass. Stocking	450,654	Apr. 21	1568	377	55	323
White, George A., Boston, Mass. Stocking	450,655	Apr. 21	1570	377	55	323
White, George W., Fort Worth, Tex. Medical compound	460,611	Oct. 6	102		57	22
White, Henry A. (See Merrill, Isaac C., assignor.)						
White, Henry C., New York, N. Y. Valve-gear for compound engines	463,182	Nov. 17	1534	400 401	57	865
White, Hugh. (See Wickham, Charles L., assignor.)						
White, Hyman, New York, N. Y. Riding-skirt	457,142	Aug. 4	320	83	56	594
White, James. (See Begg, James W., assignor.)						
White, James, Chicago, Ill. Multicolor chart	459,060	Sept. 8	807	195	56	1229
White, James, assignor to National Safe and Lock Company, Cleveland, Ohio. Safe	447,709	Mar. 3	688	171	54	1248
White, James, assignor to National Safe and Lock Company, Cleveland, Ohio. Time-lock	459,618	Sept. 15	1703	426	56	1410
White, James F., Columbus, Ohio. Ironing-board	450,210	Apr. 14	832	209	55	168
White, James G., <i>et al.</i> (See Waring, Edward M., assignor.)						
White, James H. (See Ricketts, James R., assignor.)						
White, James H., assignor to Manhattan Brass Company, New York, N. Y. Argand lamp	444,867	Jan. 20	1432	372	54	296
White, James H., assignor to Manhattan Brass Company, New York, N. Y. Lamp-box for cars	448,899	Mar. 24	2656	667	54	1649
White, James H., assignor to Manhattan Brass Company, New York, N. Y. Wick-tube for lamp-stoves	452,927	May 26	2393	605	55	1052

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White, James H., assignor to Manhattan Brass Company, New York, N. Y. Argand lamp	457,571	Aug. 11	1064	271	56	740
White, James L., Beeville, Tex. Car-replacer	459,086	Sept. 8	843	204	56	1235
White, Jarvis B., Millbury, Mass. Sifter or screen	449,342	Mar. 31	3367	849	54	1789
White, Jeremiah R., Midway, Miss. Cotton-scraper	445,827	Feb. 3	527	128	54	614
White, John. (See Jarboe, Seibert, and White.)						
White, John, <i>et al.</i> (See Seibert, William P., assignor.)						
White, John, Memphis, Tenn. Reservoir cooking-stove	461,538	Oct. 20	1630	398	57	326
White, John A. (See Cushman, Abe L., assignor.)						
White, John E., Syracuse, N. Y. Push-button	460,416	Sept. 29	2934	734	56	1659
White, John P. (See Funk and White.)						
White, John S. (See Conway and White.)						
White, Joseph J., New Lisbon, N. J. Journal-box lubricator	458,816	Sept. 1	411	98	56	1144
White, Le Roy S., assignor to Electrical Appliance Manufacturing Company, Waterbury, Conn. Electric switch	451,190	Apr. 28	2418	597	55	493
White, Le Roy S., assignor to Electrical Appliance Manufacturing Company, Waterbury, Conn. Electric-lamp socket	453,455	June 2	446	114	55	1232
White, Le Roy S., assignor to himself and S. A. Chapman, Waterbury, Conn. Electrically-controlled cutting device	460,695	Oct. 6	269	65	57	53
White, Louis H., St. Augustine, assignor of one-fourth to A. Meyerson, Jacksonville, Fla. Fire-escape	453,951	June 9	1169	305	55	1379
White, Lynch, Jr., W. Y. Baker, and C. J. Watts, London, England. Horizontal tubular boiler	458,277	Aug. 25	2217	543	56	975
White, Patrick F., Western Port, Md. Railway-car brake	451,095	Apr. 28	2241	555	55	460
White, Patrick F., assignor of one-half to J. S. Jamesson and W. F. Mansfield, Western-port, Md. Variable exhaust mechanism for locomotives	457,930	Aug. 18	1656	433	56	861
White, Peter, St. Louis, Mo. Hydrant	455,782	July 14	792	208	56	161
White, Peter, St. Louis, Mo. Urinal-washout	456,073	July 14	1223	{ 321 322 }	{ 56 241 }	
White, Ormond S., and J. P. Lewis, Wilkes-Barré, Pa.; said Lewis assignor to said White. House letter-box	464,928	Dec. 8	1401	{ 353 354 }	{ 57 1412 }	
White, Otis C., Worcester, Mass. Electric-arc lamp	445,724	Feb. 3	341	90	54	580
White, Otis C., Worcester, Mass. Adjustable chair	461,928	Oct. 27	2264	560	57	457
White, Roger S. (See Pilkington and White.)						
White, Rollin, Lowell, assignor to W. F. Draper, Hopedale, Mass. Support for spinning-spindles	446,999	Feb. 24	2433	605	54	1012
White, Royal P., Littleton, N. H. Water-heating device	449,509	Mar. 31	3647	917	51	1844
White, Samuel K., Chicago, Ill. Clutch mechanism	447,019	Feb. 24	2472	{ 615 616 }	{ 54 1019 }	
White, Samuel K., Chicago, Ill. Paging-machine	449,304	Mar. 31	3281	{ 831 832 }	{ 54 1776 }	
White, Stewart, Greensburg, Pa. Double-acting pump	445,915	Feb. 3	652	159	51	640
White, Thomas H. (See Clyne, James B., assignor.)						
White, Thomas M., assignor of three-fourths to Arkansas Democrat Company, Little Rock, Ark. Blank book	464,310	Dec. 1	485	116	57	1226
White, Thomas R., Fincastle, Va. Nut-lock	451,717	May 5	415	101	55	658
White, Uriah M., Cincinnati, Ohio. Cabinet for holding time-cards, &c.	450,271	Apr. 14	936	232	55	186
White, W. W. (See Barron, Miles K., assignor.)						
White, William, London, England. Electric switch	449,188	Mar. 31	3101	782	54	1743
White, William A., Staatsburg, N. Y. Blancher for celery, &c.	459,804	Sept. 22	1995	501	56	1473
White, William H., Topeka, Kans. Grave-annunciator	455,446	July 7	235	60, 61	56	48
White, William H., Topeka, Kans. Annunciator for the supposed dead	465,548	Dec. 22	2478	632	57	1635
White, William M. (See Haden, Thomas J., assignor.)						
White, William P., Voluntown, Conn. Belt-coupling	450,901	Apr. 21	1948	478	55	393
White, William R., Bloomington, Ill. Gate	446,605	Feb. 17	1790	443	54	880
White, William R., Bloomington, Ill. Gate	456,974	Aug. 4	81	20	56	549
White, William R., Bloomington, Ill. Swinging gate	461,061	Oct. 13	798	204	57	160
White, William R., Bloomington, Ill. Gate	463,324	Nov. 17	1757	460	57	908
White, William R., Bloomington, Ill. Sliding gate	464,235	Dec. 1	360	87	57	1201
Whitehead, Charles, <i>et al.</i> (See Firth and Robertshaw, assignors.)						
Whitehead, Henry W., <i>et al.</i> (See Firth and Robertshaw, assignors.)						
Whitehead, Henry W. (See Smith and Whitehead.)						
Whitehead, James, Leicester, England. Spinning-frame	453,271	June 2	143	40	55	1175
Whitehead, John H., <i>et al.</i> (See Firth and Robertshaw, assignors.)						
Whitehead, William T. (See Mason and Whitehead.)						
Whitehall, Nicholas, Newtown, Ind. Cultivator	459,451	Sept. 15	1432	359	56	1360
Whitehouse, Alonzo E., Boston, assignor of two-thirds to G. L. Hender, Weymouth, Mass., and R. A. Tilton, Salem, N. H. Plant-stand	462,674	Nov. 3	712	183	57	688
Whitehurst, George R. (See Godden and Whitehurst.)						
Whitehurst, Robert W., assignor of one-half to M. L. Wrenn, Norfolk, Va. Ice-cream freezer	461,397	Oct. 13	1340	338	57	267
Whitelaw, Henry W., San Francisco, Cal. Breech-loading gun	449,988	Apr. 7	508	127	55	99
Whiteley, Edward. (See Whiteley, Joe B. and E.)						
Whiteley, Joe B. and E., Huddersfield, England. Machinery for drying yarn in hanks	465,086	Dec. 15	1710	{ 435 436 }	{ 57 1480 }	
Whiteside, John S., Jetmore, Kans. Plow attachment	462,287	Nov. 3	108	26	57	572
Whiteside, Sidney B., San Francisco, Cal. Mailing-machine	446,495	Feb. 17	1634	400	54	850
Whiteside, Sidney B., San Francisco, Cal., assignor to Postage Stamp Service Machine Company, New York, N. Y. Stamp-selling and change-returning machine	461,461	Oct. 20	1446	364	57	294
Whiteside, Sidney B., assignor to Postage Stamp Service Machine Company, New York, N. Y. Vending apparatus	465,908	Dec. 29	3041	779	57	1754
Whitfield, William H., and M. McCormick, Ponn Yan, N. Y. Road-cart	461,462	Oct. 20	1447	364	57	294
Whithorn, George P., Emporia, Kans. Churn	464,236	Dec. 1	361	87	57	1202
Whitin Machine Works. (See Prest, John E., assignor.)						
Whiting, F. C. (See Waters, Samuel H., assignor.)						
Whiting, Horace H. (See Whiting, Lewis S., assignor.)						
Whiting, James R., New York, N. Y. Waste and water pipe valve and connection of wash-basins and the like	449,989	Apr. 7	509	127	55	99
Whiting, James R., New York, and W. R. Lawrence, Waterville, N. Y. Recovering vaporized solvents	450,501	Apr. 14	1299	318	55	256
Whiting, John S., Little Rock, Ark. Bank teller's cash-book	452,404	May 19	1564	388	55	887
Whiting, Lewis S., Ashland, assignor of one-half to H. H. Whiting, Canton, Ohio. Clover-huller	447,743	Mar. 3	749	187	54	1260
Whiting, Nathaniel T., San Francisco, Cal. Device for supplying water to vessels	456,320	July 21	1611	426	56	324

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Whiting & Son, John L. (See Wolcott, Arthur H., assignor.)						
Whiting, William F. (See Howard, Parks, and Whiting.)						
Whiting, William F., assignor to H. and S. C. Howard, Providence, R. I. Separable button	447,855	Mar. 10	958	240	54	1306
Whiting, William S., Camden, N. J., assignor to T. D. Richardson, F. E. and C. F. De Long, Philadelphia, Pa. Garment-hook	455,080	June 30	3000	762	55	1748
Whiting, William S., Camden, N. J., assignor to T. D. Richardson, F. E. and C. F. De Long, Philadelphia, Pa. Hook	456,786	July 28	2387	628	56	479
Whitley, Albert, Woodville, Miss. Cotton chopper and scraper	459,324	Sept. 8	1211	296	56	1309
Whitlock, Edward, Richmond, Va. Indicator for elevators	416,907	Feb. 24	2299	572	54	988
Whitlock Machine Company. (See Whitlock, Sturges, assignor.)						
Whitlock, Philip. (See Streat, Thomas, assignor.)						
Whitlock, Sturges, Shelton, Conn. Ink-fount for printing-machines	466,314	Dec. 29	3703	{ 945 946 }	57	1880
Whitlock, Sturges, assignor to Whitlock Machine Company, Shelton, Conn. Sheet-guide for printing-machines	466,055	Dec. 29	3303	{ 843 844 }	57	1804
Whitman, Charles E., St. Louis, Mo. Baling-press	453,098	May 26	2685	{ 676 677 }	55	1110
Whitman, Charles E., St. Louis, Mo. Baling-press	463,929	Nov. 24	2730	{ 708 709 }	57	1101
Whitman, Henry L., St. Louis, Mo. Baling-press	446,311	Feb. 10	1339	{ 326 327 }	54	777
Whitman, Orrin M., Boston, Mass. Refrigerator	461,006	Oct. 13	720	{ 185 186 }	57	147
Whitmore, Edwin B., Three Rivers, Mich. Middlings-purifier	458,511	Aug. 25	2593	{ 631 632 }	56	1046
Whitmore, George A., Fellows, Wis. Transplanter	456,209	July 21	1427	{ 378 379 }	56	290
Whitmarsh, William W. (See Hitchcock and Gooding, assignors.)						
Whitner, William C., Rock Hill, S. C. Railway-car	454,099	June 16	1380	{ 360 361 }	55	1426
Whitney, Amos, et al. (See Furlong and Tucker, assignors.)						
Whitney, Baxter D., Winchendon, Mass. Feed-roller	459,325	Sept. 8	1212	{ 296 297 }	56	1309
Whitney, Benjamin P., assignor of one-half to W. F. Wickenden, Los Alamos, Cal. Cultivator	447,992	Mar. 10	1193	{ 302 303 }	54	1351
Whitney, Charles, Chicago, Ill. Photographic camera	446,368	Feb. 10	1417	{ 349 350 }	54	793
Whitney, Charles, Chicago, Ill. Photographic camera	446,369	Feb. 10	1419	{ 349 350 }	54	794
Whitney, Charles, Chicago, Ill. Photographic-plate holder	446,370	Feb. 10	1421	{ 349 350 }	54	794
Whitney, Charles, Chicago, Ill. Photographic-plate holder	446,371	Feb. 10	1423	{ 349 350 }	54	795
Whitney, Charles, Chicago, Ill. Photographic camera	446,372	Feb. 10	1424	{ 350 351 }	54	795
Whitney, Charles, Chicago, Ill. Supply-case for roll-holders in photographic cameras	446,373	Feb. 10	1425	{ 350 351 }	54	795
Whitney, Charles, Chicago, Ill. Photographic camera	446,374	Feb. 10	1427	{ 351 352 }	54	795
Whitney, Christopher, Franklinville, N. Y. Coal-sentle	459,619	Sept. 15	1705	{ 426 427 }	56	1410
Whitney Coupling Company. (See Whitney, Daniel D., assignor.)						
Whitney, Daniel D., Cornwall, N. Y., assignor to Whitney Coupling Company, Whitinsville, Mass. Strap-loop for carriages	445,105	Jan. 20	1812	{ 468 469 }	54	369
Whitney, Edward H., and J. L. Kirby, Cambridge, assignors to Dover Stamping Company, Boston, Mass. Egg-beater	463,818	Nov. 24	2539	{ 602 603 }	57	1066
Whitney, Edwin H., East Providence, R. I. Combined ship's windlass and capstan	446,825	Feb. 17	2134	{ 530 531 }	54	949
Whitney, Edwin H., assignor to American Ship Windlass Company, East Providence, R. I. Ship-windlass	448,898	Mar. 24	2541	{ 638 639 }	54	1627
Whitney, Edwin R., assignor to Electrical Supply Manufacturing Company, Manchester, N. H. Electric-wire support and cut-out	448,468	Mar. 17	1965	{ 494 495 }	54	1510
Whitney, Frank, Chicago, Ill. Photographic camera	446,045	Feb. 10	876	{ 213 214 }	54	690
Whitney, Harry O., assignor to Winchester Repeating Arms Company, New Haven, Conn. Tube-cutting machine	460,317	Sept. 29	2789	{ 695 696 }	56	1632
Whitney, Robert W. (See Bichet and Whitney.)						
Whitney, Ruel W., San Francisco, Cal. Type-writing machine	445,213	Jan. 27	1986	{ 512 513 }	54	412
Whitney Safety Fire-Arms Company. (See Whitney, William H., assignor.)						
Whitney, William B., assignor to W. S. Reed Toy Company, Leominster, Mass. Registering toy bank	465,226	Dec. 15	1935	{ 492 493 }	57	1522
Whitney, William H., assignor to Whitney Safety Fire-Arms Company, Florence, Mass. Safety-lock for fire-arms	451,191	Apr. 28	2419	{ 598 599 }	55	493
Whitney, Willie D., Clarendon, N. Y. Fence	447,420	Mar. 3	240	{ 61 62 }	54	1162
Whiton, Mary B. (See Bangs, Lois A., assignor.)						
Whitsitt, Samuel H., et al. (See Dougherty, George C., assignor.)						
Whitson, Peter E. (See Nosker and Whitson.)						
Whittaker, David, and L. H. Hamilton, assignors to Whittaker Stone Separator Company, Milwaukee, Wis. Stone-separator	455,375	July 7	123	{ 33 34 }	56	27
Whittaker, Edward W., New York, N. Y. Tennis-sash	449,020	Mar. 24	2830	{ 717 718 }	54	1683
Whittaker, Edward W., New York, N. Y. Tennis-belt	450,050	Apr. 7	592	{ 147 148 }	55	114
Whittaker, George E. (See Knight and Whittaker.)						
Whittaker, George E., assignor of one-half to H. C. and J. N. Tower, Hndson, Mass. Hose-nozzle	457,874	Aug. 18	1554	{ 404 405 }	56	842
Whittaker Stone Separator Company. (See Whittaker and Hamilton, assignors.)						
Whittaker, Willis W., and W. A. Hoke, Springfield, Mo. Buggy-top	455,433	July 7	218	{ 56 57 }	56	44
Whittemore, James, assignor to T. S. Sprague & Son, Detroit, Mich. Store-service apparatus	444,680	Jan. 13	1094	{ 283 284 }	54	224
Whittemore, James, Detroit, Mich., assignor to National Surface Guard Company, Chicago, Ill. Cattle-guard	460,318	Sept. 29	2793	{ 695 696 }	56	1633
Whittemore, John Q. A. (See Fahney, William J., assignor.)						
Whittemore, John Q. A. (See Fahney and Taylor, assignors.)						
Whittemore, Lonis D., Jr., Boston, Mass. Tire for bicycles	447,993	Mar. 10	1194	{ 302 303 }	54	1351
Whitten, Alonzo H., et al. (See Sampson, Winslow F., assignor.)						
Whitten, Neri H., Columbus, Ohio. Book-supporting attachment for furniture	454,553	June 23	2064	{ 534 535 }	55	1565
Whittier, Abel C., Boston, Mass. Wrench	449,722	Apr. 7	118	{ 31 32 }	55	25
Whittier, Abel C., Boston, Mass. Chain-wrench	464,167	Dec. 1	241	{ 60 61 }	57	1181
Whittier, Abel C., Boston, Mass. Pipe-wrench	464,168	Dec. 1	243	{ 60 61 }	57	1182
Whittier, Alcibiades J., Chelsea, assignor to himself, J. M. Gove, and R. C. Fanning, East Boston, Mass. Street-sweeper	446,046	Feb. 10	877	{ 214 215 }	54	691
Whittier, Edwin R., Somerville, Mass. Fire-escape	448,101	Mar. 10	1347	{ 344 345 }	54	1382
Whittier Machine Company. (See Clark, John H., assignor.)						
Whittier, Phineas W., North Andover, assignor to A. H. Plummer, Auburndale, Mass. Machine for whitening and softening leather	451,096	Apr. 28	2243	{ 555 556 }	55	460

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Whittingham, Charles, <i>et al.</i> (See Whittingham, David L., assignor.)						
Whittingham, David L., assignor to C. Whittingham and F. A. Johnson, Detroit, Mich.						
Wick-tube for lamps or oil-stoves	445,789	Feb. 3	454	113	54	600
Whittingham, George H., Baltimore, Md. Thermal cut-out	452,152	May 12	1147	290	55	797
Whittingham, George H., assignor to Automatic Switch Company, Baltimore, Md. Self-controlled motor-switch	452,151	May 12	1144	290	55	797
Whittinghill, J. W. (See Tapp, Lacy, L., assignor.)						
Whittington, Joseph H., Buffalo, N. Y. Extension-ladder	457,805	Aug. 18	1437	372	56	821
Whittington, Joseph H., Jr., assignor to himself and T. S. Belden, Buffalo, N. Y. Self-closing railway-switch	460,516	Sept. 29	3101	776	56	1692
Whittington, Joseph, assignor of three-fourths to T. S. Belden, Buffalo, N. Y. Combination-lock	463,128	Nov. 10	1449	374	57	841
Whitworth, Albert J. (See Ford and Whitworth.)						
Whitworth, Thomas S. (See Lord and Whitworth.)						
Whyte, John D., Manchester, England. Machine for winding yarn into cops	458,927	Sept. 1	594	146	56	1180
Wiard, George, assignor to Wiard Plow Company, Batavia, N. Y. Horse hay-rake	457,485	Aug. 11	936	238	56	714
Wiard, George, assignor to Wiard Plow Company, Batavia, N. Y. Horse hay-rake	460,612	Oct. 6	102	28	57	22
Wiard Plow Company. (See Wiard, George, assignor.)						
Wichler, Adam, assignor of one-half to J. Sacker, Monroe, Wis. Car-coupling	458,437	Aug. 25	2472	602	56	1022
Wickenden, W. F. (See Whitney, Benjamin P., assignor.)						
Wicker, John T., Sprague, Wash. Railway-rail coupling	451,544	May 5	149	37	55	608
Wickers, George O., Lawrence, and J. H. Stone, assignors to Davis & Furber Machine Company, North Andover, Mass. Yarn-spooler	444,562	Jan. 13	921	240	54	191
Wickersham, William, Worcester, Mass. Printer's quoin	451,990	May 12	848	217	55	747
Wickersham, William, Worcester, Mass. Printer's quoin	453,226	June 2	68	18	55	1161
Wickersham, William, Worcester, Mass. Printer's quoin	456,245	July 21	1494	397	56	302
Wickes, Edward N., East Saginaw, Mich. Winding-drum	448,868	Mar. 24	2613	656	54	1641
Wickes, Robert O., Troy, N. Y. Telegraph-relay	450,272	Apr. 14	938	232	55	187
Wickey, Andrew, Chicago, Ill. Baling press	449,189	Mar. 31	3102	782	54	1743
Wickey, Andrew, Chicago, Ill. Baling press	455,503	Sept. 15	1509	378	56	1374
Wickey, Andrew, Chicago, Ill. Baling press	459,504	Sept. 15	1511	378	56	1375
Wickey, Andrew, Chicago, Ill. Baling press	463,673	Nov. 24	2325	610	57	1025
Wickey, Andrew, Quincy, Ill. Corn-harvester	461,539	Oct. 20	1621	398	57	327
Wickey, Edward W., Chicago, Ill. Manufacturing metal wheels	451,545	May 5	149	37	55	608
Wickey, Edward W., Chicago, Ill. Letter-copier	455,821	July 14	867	227	56	174
Wickham, Albert W. (See Kassebaum and Darr, assignors.)						
Wickham, Charles L., assignor of one-half to H. White, Utica, N. Y. Vending-machine	446,047	Feb. 10	878	214	54	691
Wickham, Russell, Canaan, N. Y. Draft-equalizer	463,772	Nov. 24	2175	646	57	1053
Wickliffe, Nathaniel, New Orleans, La. Billiard-cue attachment	453,797	June 9	976	254	55	1341
Wicks, Albert E., Brooklyn, N. Y. Inserting gores in shoes	445,580	Feb. 3	93	22	54	529
Wicks, George, Ayton, Scotland, assignor to L. N. Fort, Nashville, Tenn. Window	450,752	Apr. 21	1705	413	55	349
Wicks, John O., Truxton, N. Y. Stanchion	456,871	July 28	2530	665	56	505
Wicks, Powers, Muskegon, Mich. Combined dresser and wash-stand	459,079	Sept. 8	834	202	56	1234
Wicks, Thomas H., Chicago, Ill. Engraving-block	465,688	Dec. 22	2694	687	57	1676
Wickstrum, P. M. (See Lind and Anderson, assignors.)						
Wickwire, B. Franklin. (See Ward and Wickwire.)						
Widdows, Henry, Newman, Ill. Tire-tightener	447,390	Mar. 3	189	50	54	1154
Widell, Erik P. T., Albina, Oreg. Picture-canvas stretcher	455,523	July 7	350	90	56	69
Widmann, Charles F., Cincinnati, Ohio. Pocket match-safe	464,405	Dec. 1	618	152	57	1251
Widmann, Louis W. (See Seemüller, Otto, assignor.)						
Wiederer, Peter, Stapleton, N. Y. Glass-beveling machine	446,196	Feb. 10	1131	277	54	735
Wiederer, Peter, Stapleton, N. Y. Glass-beveling machine	458,799	Sept. 1	375	90	56	1137
Wiedersheim, John A. (See Kenderdine, William J., assignor.)						
Wiedrich, Charles L., assignor to Pratt & Letchworth, Buffalo, N. Y. Wheeled toy	463,783	Nov. 24	2488	649	57	1056
Wiegand, S. Lloyd. (See Mason and Wiegand.)						
Wiegand, S. Lloyd, Philadelphia, Pa. Method of and apparatus for electric welding	456,541	July 21	1976	521	56	393
Wiegand, S. Lloyd, Philadelphia, Pa. Mechanical selector and recorder	461,970	Oct. 27	2324	576	57	468
Wieland, Ludwig. (See Hagen and Wieland.)						
Wiemann, William P., Allegheny, Pa. Dynamo-electric machine	465,104	Dec. 15	1748	432	57	1487
Wies, Charles, assignor to J. M. Lockey, Faulkton, S. D. Vise	460,613	Oct. 6	104	28	57	23
Wiesebeck, Frederick W., Chicago, Ill. Apparatus for treating liquids	455,893	July 14	960	251	56	193
Wiesebeck, Frederick W., New York, N. Y. Manufacturing malt	456,872	July 28	2531	665	56	505
Wiesebeck, Frederick W., New York, N. Y. Filter-press	459,326	Sept. 8	1214	297	56	1310
Wiesemann, Wilhelm, St. Louis, Mo. Bread-mixing stand	458,878	Sept. 1	526	128	56	1165
Wier, Marshall A., London, England. Device for forming and deciphering secret communications	449,723	Apr. 7	120	31	55	26
Wies, Charles, assignor of one-half to J. M. Lockey, Faulkton, S. D. Vise	449,987	Apr. 7	507	127	55	98
Wies, Charles, assignor to J. M. Lockey, Faulkton, S. D. Vise	454,693	June 23	2304	591	55	1609
Wiesebeck, Frederick W., assignor of one-half to R. M. Bruno, New York, N. Y. Thermometer	455,268	June 30	3297	835	55	1805
Wiesinger, Henry J., Soudan, Minn. Core-lifter for diamond drills	465,305	Dec. 15	2066	528	57	1547
Wigand, John, Cleveland, Ohio. Wagon	462,288	Nov. 3	108	27	57	572
Wiget, Dominic, St. Louis, Mo. Ammunition-charger	466,209	Dec. 29	3530	903	57	1847
Wigg, Walter J., Frodsam, assignor to Hull and Liverpool Red Oxide Company, Limited, Kingston-upon-Hull, England. Manufacture of Venetian red	464,917	Dec. 8	1388	350	57	1409
Wigger, John, Rich Hill, Mo. Animal-trap	463,238	Nov. 17	1618	422	57	882
Wigger, William T. (See Gragg and Wigger.)						
Wiggers, Albert, West Hoboken, N. J. Tray	447,221	Feb. 24	2838	703	54	1088
Wiggers, Henry H., Cincinnati, Ohio. Folding table	459,427	Sept. 15	1399	349	56	1354
Wiggin, Frank L., Lowell, Mass. Presser-wheel for knitting-machines	464,907	Dec. 8	1377	346	57	1407
Wiggin, Joseph N., Orange, N. J., and J. E. Rathbun, Brooklyn, N. Y., assignors to said Wiggin. Machinery for handling printed shade fabrics	449,305	Mar. 31	3292	832	54	1777
Wiggin, Joseph N., Orange, N. J., C. A. Collard, New York, and J. E. Rathbun, Brooklyn, N. Y., assignors to said Wiggin. Mechanism for handling and conveying printed shade fabrics, &c.	453,419	June 2	384	100	55	1219
Wiggins, Charles P., Memphis, Tenn., and J. M. Pollard, Washington, D. C. Baling-press	462,753	Nov. 10	836	220	57	721
Wiggins, Clarence S., Hornellsville, N. Y. Artificial tooth-crown	452,533	May 19	1768	445	55	923
Wigington, John R., assignor of one-half to W. R. H. Alexander, Washington, D. C. Automatic railway-switch	448,171	Mar. 10	1450	370	54	1403

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Wigham, Thomas A. (See Jones, John A., assignor.)						
Wight, Henry F. (See Wight, Ronell L. and H. F.)						
Wight, Ronell L., Bridgton, Me., and H. F. Wight, Malden, assignors of two-thirds to W. M. McDonald, Somerville, Mass. Can-labeling machine	463,607	Nov. 17	2214	{ 583 584 }	57	996
Wight, William. (See Wheeler, William H., assignor.)						
Wightman, Benjamin E., Oskaloosa, Iowa. Coal-elevator	455,139	June 30	3096	{ 787 788 }	55	1767
Wightman, David H., St. Louis, Mo., assignor to Simmons Hardware Company, of Missouri. Show-case	459,981	Sept. 22	9268	569	56	1525
Wightman Electric Manufacturing Company. (See Wightman, Merle J., assignor.)						
Wightman, George F., Traer, Iowa. Pump-motor	458,928	Sept. 1	506	146	56	1181
Wightman, Merle J. (See Deacon and Wightman.)						
Wightman, Merle J. (See Lemp and Wightman.)						
Wightman, Merle J., Scranton, Pa. Regulating the speed of electric motors	460,614	Oct. 6	105	28, 29	57	23
Wightman, Merle J., Scranton, Pa. Rail connection for electric railways	460,615	Oct. 6	109	29	57	24
Wightman, Merle J., Scranton, Pa., assignor to Thomson-Houston Electric Company, of Connecticut. Regulating apparatus for electric motors	444,900	Jan. 20	1481	{ 382 383 }	54	305
Wightman, Merle J., assignor to Wightman Electric Manufacturing Company, Scranton, Pa. Trolley for electric railways	448,172	Mar. 10	1452	371	54	1403
Wightman, Merle J., assignor to Wightman Electric Manufacturing Company, Scranton, Pa. Trolley for electric railways	448,173	Mar. 10	1457	372	54	1405
Wightman, Richard, Jr., New York, N. Y. Buoyant bathing-suit	454,193	June 16	1518	{ 398 399 }	55	1453
Wightman, William, Pulaski, N. Y. Milk-cooler	448,869	Mar. 24	2614	657	54	1641
Wike, Johan J., West Hohenok, N. J., assignor to J. K. Krieg, New York, N. Y. Pegging-jack	446,312	Feb. 10	1342	327	54	778
Wiklund, Anders O., Chicago, Ill. Window	452,557	May 19	1806	454	55	931
Wilber, Frank P., Clyde, Ohio. Automatic wagon-brake	462,461	Nov. 3	387	95	57	624
Wilbur, Alfred, assignor to B. H. Lightfoot, Pittsburg, Pa. Reservoir for gas-distributing systems	455,081	June 30	3000	763	55	1748
Wilburn, Hewitt H., Ritzville, Wash. Spring-motor	450,455	July 21	1835	487	56	366
Wilcomb, Frank, Providence, assignor to W. H. Haskell, Pawtucket, R. I. Straight-knitting machine	463,560	Nov. 17	2130	{ 562 563 }	57	980
Wilcomb, Frank, Providence, assignor to W. H. Haskell, Pawtucket, R. I. Knit fabric and making the same	463,561	Nov. 17	2133	563	57	981
Wilcomb, Frank, Providence, assignor to W. H. Haskell, Pawtucket, R. I. Stop-motion for knitting-machines	463,562	Nov. 17	2135	564	57	981
Wilcox, Amos A., Cleveland, assignor to A. P. Gould, J. C. Skelton, and A. Hoeffer, Canton, Ohio. Dental engine	459,428	Sept. 15	1400	349	56	1354
Wilcox, Amos A., Cleveland, assignor to A. P. Gould, J. C. Skelton, and A. Hoeffer, Canton, Ohio. Dental engine	459,429	Sept. 15	1401	350	56	1354
Wilcox, Curtis N., Brooklyn, N. Y. Pulley-fastening	463,960	Nov. 24	2772	719	57	1110
Wilcox, Edson D., Clarkville, Iowa. Cooler for butter-workers	451,352	Apr. 28	2665	660	55	541
Wilcox, Edward J. (See Pennock, William D., assignor.)						
Wilcox, Edward M., Kansas City, Mo. Corn-harvester	456,229	July 21	1468	{ 390 391 }	56	297
Wilcox, Frank F., assignor to Studebaker Brothers, South Bend, Ind. Water-tank	448,870	Mar. 24	2615	657	54	1641
Wilcox, Frederic P., Clifton Springs, N. Y. Instrument for forcing air into the lungs	459,898	Sept. 22	2152	541	56	1504
Wilcox, John F., et al. (See Osborn, Luke W., assignor.)						
Wilcox, Lewis T., Jackson, Mich. Oil-stove	449,343	Mar. 31	3368	849	54	1790
Wilcox, Lewis T., Jackson, Mich. Oil-stove	451,964	May 12	805	{ 204 205 }	55	739
Wilcox, Lewis T., Jackson, Mich. Device for heating and lighting	458,669	Sept. 1	192	45	56	1102
Wilcox Manufacturing Company. (See Richards, Marcus C., assignor.)						
Wilcox, Samuel P., Elkhart, Ind., and J. D. Partello, Rochester, Mich. Electric-railway system	455,956	July 14	1057	{ 277 278 }	56	209
Wilcox Silver Plate Company. (See Babbitt, Seth W., assignor.)						
Wilcox, Stephen, Brooklyn, N. Y. Compound engine	445,386	Jan. 27	2233	579	54	462
Wilcox, Stephen C., assignor to W. L. Seeburger, Des Moines, Iowa. Attachment for jewelers' lathe-chucks	460,077	Sept. 22	2413	604	56	1552
Wilcox, William R., Ridgway, Colo. Wagon-brake	462,754	Nov. 10	839	220	57	722
Wilcoxon, M. H., et al. (See Redlinger, Michael, assignor.)						
Wild, Fred, Denver, Colo. Upright boiler	453,766	June 9	927	241	55	1331
Wilder, Charles H. (See Prosser and Wilder.)						
Wilder, Charles H., et al. (See Swett, Greenleaf L., assignor.)						
Wilder, Charles M. (See Ramsey, Harden, and Wilder.)						
Wilder Duplex Electric Burglar Alarm and Messenger Company. (See Wilder, Edmund R., assignor.)						
Wilder, Edward B., St. Louis, Mo. Fancet	444,323	Jan. 6	535	139	54	107
Wilder, Edmund R., Kansas City, Mo. Central-station apparatus for call-boxes	460,767	Oct. 6	369	91	57	72
Wilder, Edmund R., Kansas City, Mo., assignor to Wilder Duplex Electric Burglar Alarm and Messenger Company, of West Virginia. Call-box	462,785	Nov. 10	891	234	57	732
Wilder, Edmund R., Kansas City, Mo., assignor to Wilder Duplex Electric Burglar Alarm and Messenger Company, of West Virginia. Fire-alarm box	462,786	Nov. 10	894	234	57	732
Wilder, Elihu, Newton, Mass. Thrill-coupling	458,310	Aug. 25	2265	553	56	983
Wilder, Frank E., Salem, assignor to O. M. Angier, Boston, Mass. Type-writing machine	447,720	Mar. 3	709	{ 177 178 }	54	1252
Wilder, Frank E., Salem, assignor to O. M. Angier, Boston, Mass. Baby-jumper	458,136	Aug. 18	1964	509	56	921
Wilder, Luke A., et al. (See Prosser and Wilder, assignors.)						
Wilder, Luke A., et al. (See Swett, Greenleaf L., assignor.)						
Wilder, Rufus A., Cressona, Pa. Electric apparatus for use on railway-trains	464,090	Dec. 1	127	32	57	1161
Wilder, William D., and W. Cobb, Jr., Brockton, Mass. Time-registering device for electrical currents	464,540	Dec. 8	823	202	57	1301
Wilder, William H. (See Thissell and Wilder.)						
Wilder, William H., Boston, Mass. Oil stove or lamp	450,547	Apr. 14	1357	334	55	268
Wilder, William H., Northampton, Mass. Oil-stove	462,936	Nov. 10	1152	299	57	782
Wilder, William H., Florence, Mass. Vapor-burner	465,227	Dec. 15	1937	433	57	1523
Wilde, George D. (See Messinger, William T., assignor.)						
Wildhack, Louis A., Leadville, Colo. Crutch	444,189	Jan. 6	347	85	54	70
Wildman, Andrew and R., Saginaw, Mich. Feed-water heater for steam-boilers	451,546	May 5	151	37	55	608
Wildman, Frank B. (See McMichael and Wildman.)						
Wildman, Robert. (See Wildman, Andrew and R.)						
Wile, Sol. (See La Casse and Wile.)						
Wiles, Robert H., assignor to Freeport Hardware Manufacturing Company, Freeport, Ill. Spring-hinge	464,406	Dec. 1	619	153	57	1251

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Wiles, Thomas S., Albany, N. Y. Magazine-camera	464,783	Dec. 8	1204	{ 290 300 }	57	1373
Wiles, Thomas S., Albany, and A. G. Goldthwait, Troy, N. Y. House-door letter-box	455,783	July 14	793	208	56	161
Wiley, Abram S., Detroit, Mich. Electric lock	456,182	July 21	1387	367	56	282
Wiley, Edgar C., Bristol, Tenn. Electric signal system for railways	446,313	Feb. 10	1343	327	54	778
Wiley, Edgar C., assignor of two-thirds to J. A. Dickey, Bristol, Tenn., and N. B. Ainsworth, McAlester, Ind. Ter. Electric signal for railways	445,106	Jan. 20	1813	468	54	369
Wiley, Harvey W., Washington, D. C. Pneumatic railway	454,318	June 16	1701	{ 441 445 }	55	1489
Wiley, John M., Bonham, Tex. Rail-joint	461,088	Oct. 13	837	216	57	168
Wiley, Josiah. (See Bradshaw, Joseph H., assignor.)						
Wiley & Russell Manufacturing Company. (See Smart, Albert J., assignor.)						
Wilfong, Joseph, assignor of one-half to S. B. Diller, Lancaster, Pa. Liniment	445,592	Feb. 3	116	.....	54	534
Wilhelm, Calvin W., Mauch Chunk, Pa. Automatic railway-signal	449,990	Apr. 7	510	{ 127 128 }	55	99
Wilhelm, John R., Addison, N. Y. Bee-hive	457,550	Aug. 11	1029	{ 264 265 }	56	733
Wilhelm, Peter, Portland, Oreg. Burglar-proof safe	450,956	Apr. 21	2033	502	55	410
Wilhelmi, Valentin, Paterson, N. J. Range-boiler	465,228	Dec. 15	1938	493	57	1523
Wilhite, Edmund S., West Salem, Ill. Band-cutter and feeder	448,102	Mar. 10	1348	345	54	1383
Wilhite, Willie A. (See Huntington, Harry G., assignor.)						
Wilke, August, Brunswick, Germany. Car-starter	446,725	Feb. 17	1982	{ 494 495 }	54	916
Wilkening, Gottlieb, Dayton, Ohio. Disk harrow	448,396	Mar. 17	1856	467	54	1489
Wilkening, Gottlieb, Dayton, Ohio. Display-rod	457,977	Aug. 18	1731	454	56	875
Wilkeson, John E., et al. (See House, Luke, assignor.)						
Wilkie, Warren. (See Reese, John H., assignor.)						
Wilkin, Theodore S., Milwaukee, Wis. Gang-saw mill	444,965	Jan. 20	1603	{ 400 410 }	54	328
Wilkin, Theodore S., Milwaukee, Wis. Gang-saw mill	446,197	Feb. 10	1133	278	54	736
Wilkin, Theodore S., Milwaukee, Wis. Gang-saw mill	447,092	Feb. 24	2593	643	51	1042
Wilkins, Harry, Philadelphia, assignor of fifty-one one-hundredths to M. H. Evans, Mount Carmel, Pa. Metal-worker's tongs	461,759	Dec. 8	1168	291	57	1366
Wilkins, John R., Oxford, England. Leaf-holder for music-stands	458,438	Aug. 25	2474	602	56	1023
Wilkins, Monroe P., New York, N. Y. Lock-washer	456,296	July 21	1577	417	56	318
Wilkinson, Albert M. (See Witham, Horace L., assignor.)						
Wilkinson, Charles E., and G. O. Wendel, Broken Bow, Nebr. Marble-shooter	464,407	Dec. 1	621	153	57	1252
Wilkinson, David A., St. Louis, Mo. Egg-beater	454,194	June 16	1519	399	55	1453
Wilkinson, David A., St. Louis, Mo. Combined bin and sifter	458,670	Sept. 1	193	45	56	1102
Wilkinson, Fred. (See Kay, Wilkinson, and Fisher.)						
Wilkinson, Jonathan. (See Kaiser and Wilkinson.)						
Wilkinson, Walter S., Baltimore, Md. Street-pavement	465,650	Dec. 22	2636	673	57	1665
Wilkinson, Walter, assignor to Gorham Manufacturing Company, Providence, R. I. Combined bottle and drinking-glass holder	451,097	Apr. 28	2244	555	55	460
Wilkinson, Walter, assignor to Gorham Manufacturing Company, Providence, R. I. Cork-screw	458,087	Aug. 18	1885	491	56	906
Wilks, Frank H., Newport, R. I. Breech-loading ordnance	446,496	Feb. 17	1636	401	54	850
Wilks, John A., Springdale, Ark. Lifting-jack	459,805	Sept. 22	1995	502	56	1473
Will, William R., Baltimore, Md. Discount and interest calendar	447,856	Mar. 10	950	{ 240 241 }	54	1306
Willans, Peter W., London, England. Steam-engine	452,551	May 19	1798	452	55	929
Willard, Charles, Newport, assignor of one-half to W. Saulsbury, Jr., Wilmington, Del. Grinding-mill	450,689	Apr. 21	1623	{ 389 396 }	55	333
Willard, Herbert J., et al. (See Pratt, Ransom D., assignor.)						
Willard, Hiram P., Tustin, Cal. Car-axle	458,671	Sept. 1	195	45	56	1102
Willcock, Stephen, assignor to S. Davison, Toronto, Canada. Clock-chimes mechanism	451,353	Apr. 28	2666	{ 660 661 }	55	541
Willcox, Alfred B., Chicago, Ill. Mechanical movement	458,347	Aug. 25	2327	508	56	996
Willcox & Gibbs Sewing Machine Company. (See Borton, Christina P., assignor.)						
Willers, George E. (See Cook and Willers.)						
Willershausen, Siegfried, assignor to F. Rhoner & Co., New York, N. Y. Table	458,962	Sept. 1	643	157	56	1191
Willets, Edward F. (See Beebe, Oscar, assignor.)						
Willetts, George, Englewood, Ill. Electric car-motor	461,228	Oct. 13	1066	{ 269 270 }	57	212
Willetts, Samuel J., et al. (See Newman, Nelson, assignor.)						
Willey, Alson F., Bluff City, Tenn. Lumber-boom	445,107	Jan. 20	1815	468	54	370
Willford, Henry. (See Kindermann, Oskar, assignor.)						
William Deering & Company. (See Rand, Charles A. A., assignor.)						
William Sellers & Company. (See Bancroft, John S., assignor.)						
William Sellers & Company. (See Lewis, Wilfred, assignor.)						
William Wharton, Jr., and Company. (See Samuel, Edward, assignor.)						
Williams, Aloinza D. (See Ripple and Williams.)						
Williams, Arthur B. (See Ennis, Henry J., assignor.)						
Williams, Carlotta B. (See Williams, Dyer, assignor.)						
Williams, Carpenter, Kentland, Ind. Disk harrow	462,289	Nov. 3	111	27	57	572
Williams, Charles D., Silver Lake, Kans. Electric belt	452,250	May 12	1305	327	55	830
Williams, Charles H., Cleveland, Ohio. Turn-buckle	445,625	Feb. 3	168	44	54	515
Williams, Charles H., and T. M. Lash, Sacramento, Cal. Mechanical movement	460,736	Oct. 6	325	80	57	64
Williams, Charley M., Milan, Tex. Combination cotton-plow	464,541	Dec. 8	825	203	57	1301
Williams Company, John R. (See Williams, John R., assignor.)						
Williams, Dyer, assignor to C. B. Williams, Cedar Rapids, Iowa. Car-coupling	462,915	Nov. 10	1108	289	57	774
Williams, Edwin, Kansas City, Mo. Automatic floating minnow-bucket	458,529	Aug. 25	2619	637	56	1050
Williams, Farmer R., Beloit, Wis., assignor to W. Deering & Company, Chicago, Ill. Twine for grain-binding harvesters	451,791	May 5	531	130	55	679
Williams, Farmer R., and G. H. Cram, Beloit, Wis. Twine	448,174	Mar. 10	1460	372	54	1405
Williams, Fitzallan B., Chicago, Ill. Leg attachment for folding bedsteads	463,411	Nov. 17	1908	498	57	936
Williams, Fitzallan B., Chicago, Ill. Wardrobe or folding bed	463,655	Nov. 24	2301	604	57	1021
Williams, Francis M., assignor of one-half to R. R. and W. H. Bulger, Brownsville, Pa. Safe-bolt-retracting device	446,940	Feb. 24	2347	583	54	995
Williams, Francis M., assignor of one-half to R. R. and W. H. Bulger, Brownsville, Pa. Armor for safes	446,941	Feb. 24	2348	583	54	996
Williams, Frank, Cisco, Ill. Gate	449,456	Mar. 31	3570	{ 892 900 }	54	1829
Williams, Frank B., Burlington, Iowa. Saw-mill feed	456,456	July 21	1836	{ 487 488 }	56	367

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Williams, Frank E., New York, N. Y., assignor of one-half to Horton, Angell & Co., Attleborough, Mass. Button	450,273	Apr. 14	939	233	55	187
Williams, Frank E., New York, N. Y., assignor of one-half to Horton, Angell & Co., Attleborough, Mass. Button	456,246	July 21	1495	397	56	302
Williams, Frank E., New York, assignor of one-half to J. E. Hills, Brooklyn, N. Y. Button	453,570	June 2	612	157	55	1263
Williams, Frank E., New York, assignor of one-half to J. E. Hills, Brooklyn, N. Y. Button	453,974	June 9	1199	313	55	1385
Williams, Frank E., New York, assignor to J. E. Hills, Brooklyn, N. Y. Button or stud.	462,831	Nov. 10	973	252	57	748
Williams, Frank K. (See Hurd, James C., assignor.)						
Williams, Frederick W., Minneapolis, Minn. Device for setting engine-valves	448,490	Mar. 17	2001	501	54	1517
Williams, George, Winnipeg, Canada. Manufacturing cement	449,510	Mar. 31	3648		54	1845
Williams, George A., Hopkinton, Mass. Box stripping or surfacing machine	458,651	Sept. 1	165	38, 39	56	1097
Williams, George A., San Diego, Cal. Hair-working machine	465,741	Dec. 22	2765	{ 706 707 }	57	1691
Williams, George A., assignor of one-half to F. Jones, San Francisco, Cal. Coffee-pot	444,572	Jan. 13	938	243	54	194
Williams, George A., assignor of one-half to F. Jones, San Francisco, Cal. Heating attachment for gas-burners	457,543	Aug. 11	1018	261	56	731
Williams, George B., Portland, Oreg. Air signaling apparatus	446,275	Feb. 10	1282	314	54	765
Williams, George M. D., McKinney, Tex. Attachment for plows	465,706	Dec. 22	2713	692	57	1680
Williams, George T., Rockford, Ohio. Combined sand-band and thill-coupling	456,389	July 21	1730	457	56	347
Williams, Gideon A. (See Strong and Williams.)						
Williams, Harry A., Penacook, N. H. Picker-stick check for looms	448,309	Mar. 17	1713	434	54	1463
Williams, Harry J., assignor of one-half to C. L. Lyon, Meriden, Conn. Device for removing corks from bottles	450,957	Apr. 21	2034	502	55	410
Williams, Henry A., Taunton, Mass. Rolling wire	446,497	Feb. 17	1637	401	54	851
Williams, Henry A., Taunton, Mass. Roll for rolling wire	446,498	Feb. 17	1640	401	54	851
Williams, Henry B., assignor of one-half to L. A. Jeffreys, Rochester, N. Y. Draftsman's curve	447,593	Mar. 3	527	129	54	1216
Williams, Henry B., assignor of one-half to L. A. Jeffreys, Rochester, N. Y. Recording mechanism for water-meters	447,594	Mar. 3	528	130	54	1216
Williams, Henry B., assignor of one-half to L. A. Jeffreys, Rochester, N. Y. Water-meter	447,595	Mar. 3	529	130	54	1217
Williams, Henry B., assignor of one-half to L. A. Jeffreys, Rochester, N. Y. Drafting and designing apparatus	461,625	Oct. 20	1766	{ 435 436 }	57	352
Williams, Henry B., assignor of one-half to L. A. Jeffreys, Rochester, N. Y. Car-truck	461,658	Oct. 20	1816	449	57	361
Williams, Henry F., San Francisco, Cal. Compound for paving, roofing, and building purposes	446,654	Feb. 17	1872		54	896
Williams, Henry J., assignor to H. J. Davidson, New York, N. Y. Button-hole sewing-machine	448,397	Mar. 17	1857	467	54	1490
Williams, Henry S., Boston, Mass. Reciprocating grate	456,457	July 21	1839	488	56	367
Williams, Homer K., assignor of one-half to J. S. Campbell, Jamison City, Pa. Washing-machine	461,301	Oct. 13	1172	298	57	234
Williams, Horace G., Lykens, Pa. Direct-acting engine	460,616	Oct. 6	112	29	57	24
Williams, Horace G., Lykens, Pa. Direct-acting engine	460,617	Oct. 6	114	30	57	25
Williams, Hubbard D. B., Mansfield, Ohio. Store-service apparatus	461,398	Oct. 13	1341	338	57	267
Williams, Hubbard D. B., Mansfield, Ohio, assignor of one-third to J. P. Rummel and W. H. Gurney. Store-service apparatus	459,261	Sept. 8	1117	273	56	1290
Williams, Hugh, Stockport, England. Gas-motor engine	457,020	Aug. 4	134	33	56	559
Williams, Irvin, Bonham, Tex. Plow	447,802	Mar. 10	873	217	54	1200
Williams, Irving E., <i>et al.</i> (See Claffin, Frank O., assignor.)						
Williams, Irving E., <i>et al.</i> (See Merry, George G., assignor.)						
Williams, Isaac T., assignor of one-half to M. A. Shumway, Syracuse, N. Y. Steak-ten-deyer	457,551	Aug. 11	1031	265	56	733
Williams, J. D. (See Reed, Francis O., assignor.)						
Williams, James, Portland, Oreg. Row-lock for boats	449,787	Apr. 7	221	56	55	45
Williams, James, assignor to Patent Waterproof Paper and Canvas Company, Limited, Willesden Junction, England. Producing cellulose films	444,515	Jan. 13	845	{ 219 220 }	54	176
Williams, James B., Oakland, Cal. Insulated electric conductor	451,586	May 5	214	51	55	620
Williams, James B., Oakland, Cal. Insulated electric conductor	451,587	May 5	217	51	55	620
Williams, James B., Oakland, Cal. Treating conductors	452,091	May 12	1039	263	55	778
Williams, James B., Oakland, Cal. Insulated electric conductor	452,510	May 19	1732	436	55	916
Williams, James B., Oakland, Cal. Insulated electric conductor	452,725	May 19	2071	521	55	983
Williams, James D. (See Pederson, Ole, assignor.)						
Williams, James L. (See Beahm, Horace S., assignor.)						
Williams, James L., and L. W. Bennett, Pilot Point, Tex. Device for handling cotton	463,708	Nov. 24	2387	626	57	1037
Williams, John M. (See Bodfish, William H., assignor.)						
Williams, John R., Newark, N. J., assignor to J. K. Williams Company, New York, N. Y. Tobacco stripping and hooking machine	449,394	Mar. 31	3461	{ 871 872 }	54	1808
Williams, John T., Mount Vernon, assignor to International Porfelectric Company, New York, N. Y. Core for electric solenoids	460,926	Oct. 6	603	153	57	117
Williams, John W., Portsmouth, assignor of one-half to A. Mercer, Brambleton, Va. Propelling and steering boats	464,408	Dec. 1	622	153	57	1252
Williams, Joseph A., Cleveland, Ohio. Electric-current regulator	450,985	Apr. 21	2083	514	55	420
Williams, Joseph C. (See Barton and Williams.)						
Williams, Kit, <i>et al.</i> (See Carpenter, James H., assignor.)						
Williams, Louis N. D. (See Scott and Williams.)						
Williams, Martin C., Minneapolis, Minn. Burial-casket	453,684	June 9	800	205	55	1308
Williams, Oliver W. (See Kenyon and Williams.)						
Williams, Percy G., Brooklyn, N. Y. Galvanic apparatus for the human body	447,857	Mar. 10	961	241	54	1307
Williams, Richard R., Syracuse, N. Y. Elevator	465,229	Dec. 15	1939	{ 493 494 }	57	1523
Williams, Robert. (See Bowker and Williams.)						
Williams, Samuel D., <i>et al.</i> (See Grant, Daniel, assignor.)						
Williams, Stephen E., Lexington, N. C. Bed-brace	457,688	Aug. 11	1235	317	56	772
Williams, Stephen P., Calloway, Tex. Step	448,566	Mar. 17	2110	528	54	1538
Williams, Thomas D., <i>et al.</i> (See Robison, Charles W. and S. D., assignors.)						
Williams, Thomas H., Brooklyn, N. Y. Bin	464,409	Dec. 1	624	153	57	1252
Williams, Thomas L., West Quincy, Mass. Stone-cutter's spectacles	451,230	Apr. 28	2477	612	55	503
Williams, Thomas W. (See Edwards, Thomas M., assignor.)						
Williams, Virgil L. (See Landauer, Sigmond, assignor.)						
Williams, Virgil L., Clarkston, Ga. Excelsior-machine	449,097	Mar. 24	2949	747	54	1706
Williams, Virgil L., Clarkston, Ga. Combination implement	458,122	Aug. 18	1943	505	56	917
Williams, Virgil L., Clarkston, assignor of one-half to S. Landauer, Atlanta, Ga. Plow	462,787	Nov. 10	897	235	57	733
Williams, William. (See Mendenhall, John C., assignor.)						
Williams, William, assignor of one-half to J. C. Mendenhall, Indianapolis, Ind. Collar-pad fastener	451,965	May 12	806	205	55	739

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Williams, William H., <i>et al.</i> (See MacKenzie, George W., assignor.)						
Williams, William H., Manchester, England, assignor, by mesne assignments, to Lamson Consolidated Store Service Company, Boston, Mass. Cash-carrier	452,469	May 19	1677	422	55	906
Williamson, Andrew M. (See Nichols, Axtil B., assignor.)						
Williamson, Cornelius T., Newark, N. J. Door-stop	465,707	Dec. 22	2714	{ 692 693	57	1681
Williamson, Daniel, Sunbury, Pa. Ice-cutter	464,542	Dec. 8	836	203	57	1301
Williamson, Dwight W. (See Allgire and Williamson.)						
Williamson, James M., New Brighton, Pa. Type and holder for the same	456,873	July 28	2534	666	56	506
Williamson, Joseph K. (See Wyatt and Williamson.)						
Williamson, Robert C., Toronto, Canada. Trace-coupling	460,806	Oct. 6	425	105	57	85
Williamson, Samuel S. (See Smith and Williamson.)						
Williamson, Samuel S., Bridgeport, Conn. Bank-check punch	462,290	Nov. 3	112	28	57	572
Williamson, Samuel S., Bridgeport, Conn. Check-punch	465,549	Dec. 22	2480	{ 632 633	57	1635
Williamson, Semen A., <i>et al.</i> (See Hughes, John E., assignor.)						
Williamson, Theodore S. (See Morris, Joseph B., assignor.)						
Williamson, Wallace W., Syracuse, N. Y. Dental engine	454,242	June 16	1585	417	55	1467
Williamson, William F., Newport News, Va. Combined tongs and pinchers	463,563	Nov. 17	2136	564	57	982
Willard, J. C. (See Neff, Elijah, assignor.)						
Willamantic Linen Company. (See Palmer, Maro V., assignor.)						
Willis, Achille M., Rediviva, Va. Artificial oyster-bed	456,390	July 21	1731	457	56	347
Willis, Charles, assignor to J. H. Hopkins & Sons, Limited, Birmingham, England. Machine for cutting sheet metal	446,241	Feb. 10	1230	{ 300 301	54	755
Willis, Charles E., Oyster Bay, assignor of one-half to R. L. Curran, New York, N. Y. Combination paper-cutter	451,217	Apr. 28	2452	606	55	499
Willis, Eben, Colton, N. Y. Sap-spout	455,784	July 14	795	208	56	162
Willis, Ernest J., London, England. Velocipede-saddle	458,609	Sept. 1	95	21	56	1084
Willis, Henry M., East Williston, N. Y. Road-cart	447,391	Mar. 3	190	50	54	1154
Willis, Samuel E. (See Blair, Joseph F., assignor.)						
Willis, William B., assignor of one-half to J. F. Kelly, Waco, Tex. Horse-power press	461,463	Oct. 20	1449	365	57	294
Williston, Jonathan B. (See Johnson and Williston.)						
Willits, Harry, New Boston, Ill. Corn-cutting machine	463,930	Nov. 24	2731	709	57	1101
Willits, Rachael C. (See Darling, Bernard P., assignor.)						
Willmott, Charles, assignor of one-fourth to C. B. Ketley, Birmingham, England. Tool or apparatus for ornamenting metallic tubes	465,957	Dec. 29	3116	{ 798 799	57	1767
Willms, Charles, Baltimore, Md. Galvanic battery	450,840	Apr. 21	1856	452	55	375
Willoughby, Annie, Philadelphia, Pa. Catamenial sack and supporter	463,819	Nov. 24	2541	663	57	1067
Wills, Henry H., Bristol, England. Cigarette-case	460,244	Sept. 29	2669	665	56	1609
Wills, William, Brooklyn, assignor of one-half to A. W. Butterworth, New York, N. Y. Oil or gas burner	466,144	Dec. 29	3441	880	57	1831
Wilson, George V. (See Smith, Ephraim, assignor.)						
Wilson, Henry F., Elyria, assignor of one-half to J. M. Kinnard, Cleveland, Ohio. Base-delivery caddy and scoop	465,090	Dec. 15	1717	437	57	1481
Wilson, Thomas A., Reading, Pa. Spectacles	452,008	May 12	875	223	55	752
Wilson, Thomas A., Reading, Pa. Spectacles	452,009	May 12	876	223	55	752
Wilson, Walter V. H., Troy, assignor of one-half to H. F. Ashton, West Troy, N. Y. Sand-box for cars	444,014	Jan. 6	84	22	54	20
Wily, August P., <i>et al.</i> (See Brittain, James A., assignor.)						
Wilmot, Albert E. (See Woolcott and Wilmot.)						
Wilmot, Frank A. (See Wilmot, Samuel R. and F. A.)						
Wilmot, Frank A., assignor to Wilmot & Hobbs Manufacturing Company, Bridgeport, Conn. Cop-spring for loom-shuttles	459,849	Sept. 22	2068	520	56	1488
Wilmot & Hobbs Manufacturing Company. (See Wilmot, Frank A., assignor.)						
Wilmot, Samuel R. and F. A., Bridgeport, Conn. Seamless sheet-metal knob or handle	447,265	Feb. 24	2914	724	54	1104
Wilmot, Samuel R. and F. A., Bridgeport, Conn. Attaching knobs or handles	447,266	Feb. 24	2916	{ 724 725	54	1104
Wilmott, James W., Fort Meade, Fla. Driver	464,784	Dec. 8	1209	301	57	1374
Wilson, Albert B., Lowell, Mass. Printer's quoin	457,501	Aug. 11	961	243	56	719
Wilson, Archibald. (See Church, William H., assignor.)						
Wilson, Arthur G. (See Troxler, Barney C., assignor.)						
Wilson, Cassius M., Fairchild, Wis. Ledger leaf or sheet	445,417	Jan. 27	2282	592	54	472
Wilson, Cassius M., Fairchild, Wis. Compartment-case for sheets, cards, or tickets	459,061	Sept. 8	809	{ 195 196	56	1230
Wilson, Charles D. (See Thacher and Wilson.)						
Wilson, Charles E., Chicago, Ill. Electric switch	444,374	Jan. 6	611	157	54	121
Wilson, Charles E., Thomasville, Tenn. Plow attachment, &c.	451,966	May 12	807	205	55	739
Wilson, Charles G., New York, N. Y. Eight-day watch-movement	453,952	June 9	1171	{ 305 306	55	1380
Wilson, Charles H., Chicago, Ill. Laying electric cables	446,214	Feb. 10	1164	285	54	742
Wilson, David H., Normal, assignor to American Electric Fence Company, Chicago, Ill. Switch-board for electric-fence stations	455,696	July 7	640	169	56	124
Wilson, David H., Normal, assignor to American Electric Fence Company, Chicago, Ill. Electric-fence-station device	457,246	Aug. 4	585	{ 154 155	56	641
Wilson, David J. (See Fraser, Gilliland, and Wilson.)						
Wilson, David, <i>et al.</i> (See Magney, Joseph P., assignor.)						
Wilson, David Y., Gunn Tree, Pa. Railway-tie	445,325	Jan. 27	2149	{ 556 557	54	445
Wilson, David Y., Gunn Tree, Pa. Railway-tie and fastener	445,326	Jan. 27	2151	557	54	445
Wilson, Ed. G. (See Wright, Thomas F., assignor.)						
Wilson, Edgar W., <i>et al.</i> (See Hoskins, Silas E., assignor.)						
Wilson, Edgar W., assignor of two-thirds to W. Z. Bills, Denver, Colo. Combination-lock	448,175	Mar. 10	1461	372	54	1405
Wilson, Edward B., Central City, Nebr. Windmill-regulator	459,982	Sept. 22	2269	570	56	1525
Wilson, Edwin A. (See Watts, Julius R., assignor.)						
Wilson, Francis T. (See McAuley, Robert G., assignor.)						
Wilson, Frank S., New York, N. Y. Station-indicator	446,120	Feb. 10	992	{ 244 245	54	712
Wilson, Frank T., Stillwater, Minn. Solar camera	460,417	Sept. 29	2936	734	56	1650
Wilson, Frederick M., Port Jefferson, N. Y. Rigging for sails	455,030	June 30	2907	739	55	1729
Wilson, George H., New York, N. Y. Lamp-wick adjuster	451,718	May 5	416	101	55	658
Wilson, George H., St. Louis, Mo. Cot	459,983	Sept. 22	2271	570	56	1525
Wilson, George M. S., Toronto, Canada. Apparatus for the manufacture of gas	463,799	Nov. 24	2510	{ 655 656	57	1060
Wilson, George R., Finsbury, England. Apparatus for preparing infusions of coffee, &c.	452,405	May 19	1565	388	55	887

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Wilson, George R., Jr., assignor to J. W. Ross, trustee, Washington, D. C. Projectile with irangible cap	465,230	Dec. 15	1941	494	57	1524
Wilson, Grove H. (See Pullman, Herbert S., assignor.)						
Wilson, Hamberry, Zanesville, Ohio, assignor to Wilson Manufacturing Company. Fire-escape	447,501	Mar. 3	392	95	54	1191
Wilson, Hardin, Buchanan, Tenn. Combined wagon-bed lifter and wire-stretcher	445,437	Jan. 27	2312	600	54	473
Wilson, Henry F., assignor to Crane Company, Chicago, Ill. Locking stop-cock	448,702	Mar. 24	2343	588	54	1590
Wilson, Henry L., Terre Haute, Ind. Oscillating steam-engine	452,298	May 12	1369	341	55	841
Wilson, Henry U., assignor to Wade, Davis & Co., Wrentham, Mass. Link for jewelry, &c.	462,916	Nov. 10	1110	289	57	774
Wilson, Henry U., assignor to Wade, Davis & Co., Wrentham, Mass. Bracelet	462,917	Nov. 10	1111	289	57	775
Wilson, Homer T., Harrodsburg, Ky. Burglar-alarm	459,984	Sept. 22	2271	570	56	1525
Wilson, Homer T., New Albany, Ind. Roller-tablet	466,067	Dec. 29	3318	847	57	1807
Wilson, Horace M., Cambridge, assignor of one-half to W. B. H. Dowse, Newton, Mass. Coin-operated perfuming apparatus	446,639	Feb. 17	1848	458	54	891
Wilson, Horace M., Cambridge, assignor of one-third to W. B. H. Dowse, Newton, Mass. Coin-operated opera-glasses	461,558	Oct. 20	1658	405	57	332
Wilson, James, Merrittton, Canada. Wire-rope machine	447,392	Mar. 3	192	50	54	1154
Wilson, James, Liscard, England. Bin	455,082	June 30	3001	763	55	1749
Wilson, James, Liscard, England. Construction of walls for bins, &c.	459,806	Sept. 22	1996	{ 502 503 }	{ 56 56 }	1473
Wilson, James C., Saugus, assignor of one-half to W. C. Edson, East Braintree, Mass. Sash-fastener	457,066	Aug. 4	214	52	56	574
Wilson, James D., and W. J. Delano, Edwardsville, Ill., assignors to N. O. Nelson Manufacturing Company, St. Louis, Mo. Sand-polishing machine	462,185	Oct. 27	2653	664	57	530
Wilson, James G., New York, N. Y. Venetian-blind pulley	450,392	Apr. 14	1136	278	55	224
Wilson, James G., New York, N. Y. Chair	454,100	June 16	1381	361	55	1427
Wilson, James H., Chicago, Ill. Gyroscope or revolving toy	461,948	Oct. 27	2292	568	57	462
Wilson, James R., Columbus, Ohio. Metallic ceiling	450,274	Apr. 14	940	233	55	187
Wilson, Jesse H., Lilac, Tex. Wire-stretcher	465,105	Dec. 15	1750	443	57	1487
Wilson, John. (See Watkins, James E., assignor.)						
Wilson, John, Bartlett, Ohio. Window	458,929	Sept. 1	598	146	56	1181
Wilson, John B., Wapella, Ill. Coverer for planters	457,945	Aug. 18	1680	440	56	866
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portland, Me. Signal-box	444,144	Jan. 6	273	65, 66	54	56
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portland, Me. Signal-box	448,398	Mar. 17	1859	467	54	1490
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portland, Me. Signal-box	448,399	Mar. 17	1860	468	54	1490
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portland, Me. Signal-box	448,400	Mar. 17	1861	468	54	1491
Wilson, John D. (See Haven, George H., assignor.)						
Wilson, John H., assignor of one-half to J. J. Dales, Carmi, Ill. Animal-trap	455,243	June 30	3263	827	55	1799
Wilson, John P., et al. (See Franck, August H., assignor.)						
Wilson, John T., Pittsburg, Pa. Manufacture of draw-bars	454,101	June 16	1382	{ 361 362 }	{ 55 55 }	1427
Wilson, John T., San Francisco, Cal. Engineer's air-brake valve	461,725	Oct. 20	1921	{ 475 476 }	{ 57 57 }	381
Wilson, Jonathan, Kalamazoo, Mich. Celery-bleacher	446,499	Feb. 17	1642	401	54	851
Wilson, Joseph J., Coldwater, Miss. Apparatus for the manufacture of sugar sirups	463,564	Nov. 17	2137	565	57	982
Wilson, Joseph P., Glasgow, Ky. Churn	463,656	Nov. 24	2302	605	57	1021
Wilson, L. H. (See McDonnell, Patrick E., assignor.)						
Wilson, Lewis T., St. Louis, Mo. Rolling window-screen	446,242	Feb. 10	1232	301	54	756
Wilson Manufacturing Company. (See Baird, William C., assignor.)						
Wilson Manufacturing Company. (See Wilson, Hamberry, assignor.)						
Wilson, Matthew, Garrison, Iowa. Ditching-machine	444,118	Jan. 6	221	53, 54	54	45
Wilson, Matthew, Garrison, Iowa. Harvester cutting apparatus	448,567	Mar. 17	2111	529	54	1538
Wilson, Merrick F., Chicago, Ill. Machine for covering paper boxes	450,275	Apr. 14	941	233	55	187
Wilson, Merrick F., Chicago, Ill. Pasting or coating paper	453,394	June 2	328	85	55	1209
Wilson, Milford J., Painesville, Ohio. Wrench	463,263	Nov. 17	1664	435	57	891
Wilson, Nelson H. (See Judy and Wilson.)						
Wilson, Nicholas, Becket, Mass. Bating hides	444,771	Jan. 13	1243		54	251
Wilson, Oscar B., Collinsville, Ill. Loop for cow-bells	463,565	Nov. 17	2139	565	57	982
Wilson, Reginald C., Liverpool, England. Apparatus for the manufacture of salt from brine	466,210	Dec. 29	3531	{ 903 904 }	{ 57 57 }	1848
Wilson, Riley P., New York, N. Y. Making steel	453,227	June 2	69	18	55	1161
Wilson, Robert B., assignor of three-fourths to W. S. Johns and W. T. Judkins, Cincinnati, Ohio. Store-service apparatus	454,793	June 23	2448	{ 629 630 }	{ 55 55 }	1637
Wilson, Robert D., Boston, Mass. Gate for railway-cars	454,935	June 30	2729	696	55	1695
Wilson, Robert J., Pittsburg, Pa. Apparatus for ventilating railway-cars	448,401	Mar. 17	1862	468	54	1491
Wilson, Robert R., assignor of one-third to L. P. Fulda, New Orleans, La. Cane-cutter	447,994	Mar. 10	1195	303	54	1351
Wilson, Stephen, Philadelphia, Pa. Bicycle	459,569	Sept. 15	1617	406	56	1395
Wilson, Sylvanus S., et al. (See Dickey, George W., assignor.)						
Wilson, Thomas N., Hickman, assignor of one-half to A. J. Hall, Milford, Ill. Mortising-machine	452,820	May 26	2220	557	55	1020
Wilson, Thomas O., Tillar, Ark. Attachment for shingle-machines for edging shingles	459,031	Sept. 8	761	185	56	1921
Wilson, Thomas S., Chicago, Ill. Clamp-electrode for electrical dental apparatus	450,690	Apr. 21	1624	390	55	333
Wilson, Thorild, et al. (See Elgen, Magnus P., assignor.)						
Wilson, William, Pine Grove, Nev. Pick	463,239	Nov. 17	1621	422	57	893
Wilson, William, assignor of one-half to J. C. Ernst, Covington, Ky. Flesh-brush	456,230	July 21	1470	391	56	298
Wilson, William A., Nacogdoches, Tex. Rivet-set	446,048	Feb. 10	880	215	54	691
Wilson, William H., et al. (See Allen, Benjamin B., assignor.)						
Wilson, William H., Groesbeck, Tex. Plow	459,667	Sept. 15	1788	450	56	1426
Wilson, William H., Groesbeck, Tex. Cultivator-harrow	460,418	Sept. 29	2938	734	56	1660
Wilson, William T. (See Morris and Wilson.)						
Wilt, Charles T., Jr., Chicago, Ill. Fastening and protecting device for trunk-lids	459,505	Sept. 15	1512	378	56	1375
Wizin, Arthur, Middletown, Conn. Drop-hammer	447,093	Feb. 24	2593	643	54	1043
Winan, Erastus. (See Ross, Augustus S., assignor.)						
Wimmer, John, et al. (See Turner, John, assignor.)						
Wimmer, Louis, Elizabethport, N. J. Yarn-nipper for spinning-machines	463,589	Nov. 17	2180	576	57	989
Wimmer, Louis, Elizabethport, N. J., assignor of one-half to E. D. Smith, New York, N. Y. Yarn-nipper	463,566	Nov. 17	2140	565	57	982
Winand, Paul A. N. (See Billberg and Winand.)						
Winans, Thomas J., assignor to J. P. and J. K. Noyes, Binghamton, N. Y. Button	458,512	Aug. 25	2595	632	56	1046

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Winchell, James F., assignor to Foos Manufacturing Company and O. S. Kelly Company, Springfield, Ohio. Crushing and grinding mill.	461,789	Oct. 20	2029	501	57	402
Winchester Repeating Arms Company. (See Browning, John M. and M. S., assignors.)						
Winchester Repeating Arms Company. (See Gardner, John, assignor.)						
Winchester Repeating Arms Company. (See Griffith, Charles H., assignor.)						
Winchester Repeating Arms Company. (See Liddell, John, assignor.)						
Winchester Repeating Arms Company. (See Mason, William, assignor.)						
Winchester Repeating Arms Company. (See Whitney, Harry O., assignor.)						
Winder, John E., Pacific, Mo. Boiler feeder and meter	450,902	Apr. 21	1949	478	55	394
Winder, John E., St. Louis, Mo. Boiler-feeder	453,526	June 2	545	140	55	1250
Windham, Wesley W., Atlanta, Ga. Car-coupling	463,087	Nov. 10	1372	354	57	826
Windhausen, Franz, Berlin, Germany. Compressing apparatus	460,696	Oct. 6	270	65, 66	57	53
Windle, John E., North Grafton, Mass. Friction-clutch	451,238	Apr. 28	2493	615	55	507
Windle, John E., North Grafton, Mass. Cloth-stretching machine	459,235	Sept. 8	1078	263	56	1282
Windler, Henry L., assignor of one-half to A. Rassa, Waverly, Mo. Sieve attachment for thrashers	444,129	Jan. 6	252	60	54	52
Windoos, William, Chicago, Ill. Indoor base-ball	465,507	Dec. 22	2403	614	57	1620
Windus, Werner, Baltimore, Md. Toy fence	444,681	Jan. 13	1098	284	54	225
Winemiller, Jacob, Sheridan, Mo. Listed-corn cultivator	465,988	Dec. 29	3175	814	57	1779
Winfield Manufacturing Company. (See Winfield, William C., assignor.)						
Winfield, William C., assignor to Winfield Manufacturing Company, Warren, Ohio. Lantern	447,549	Mar. 3	462	113 114	54	1204
Winfield, William C., assignor to Winfield Manufacturing Company, Warren, Ohio. Oil-can	460,169	Sept. 29	2563	639	56	1589
Winfree, Alexander B. (See Burch and Winfree.)						
Wing, Chamcey, Greenfield, Mass. Tool-grinding machine	457,755	Aug. 11	1355	350	56	794
Wing, Herbert H., Buffalo, N. Y. Obtaining bromine and iodine	447,926	Mar. 10	1078	270	54	1329
Wing, Herbert H., Buffalo, N. Y. Manufacture of phosphorus	452,821	May 26	2223	558	55	1021
Wing, Herbert H., Buffalo, N. Y. Manufacture of cement	455,376	July 7	125	33	56	28
Wing, Herbert H., Buffalo, N. Y. Obtaining iodine	456,183	July 21	1389	367 368	56	283
Wing, Lingan C., Boston, Mass. Fruit seeder and clearer	453,685	June 9	801	205	55	1308
Winkler, Ehregott T., Philadelphia, Pa., assignor, by mesne assignments, to American Ice Machine Company. Oiling and cooling appliance for the piston-rods of pumps for ice-making apparatus	452,534	May 19	1770	445 446	55	924
Winkler, Ehregott T., Philadelphia, Pa., assignor, by mesne assignments, to American Ice Machine Company. Condenser-coil for ice-making machines	452,75	May 19	1771	446	55	924
Winkler, Ehregott T., Philadelphia, Pa., assignor, by mesne assignments, to American Ice Machine Company. Ice-making and refrigerating machine	452,536	May 19	1773	446 447	55	924
Winkler, Ehregott T., Philadelphia, Pa., assignor, by mesne assignments, to American Ice Machine Company. Compression-pump for ice-making machines	452,537	May 19	1775	447	55	924
Winkler, Rudolf, assignor of three-fifths to M. D. W. Loomis, Detroit, Mich. Oil-burner	460,902	Oct. 6	573	145	57	112
Winkley, Erastus E., Lynn, Mass. Speed-regulator for dynamo-electric machines	454,541	June 23	2053	531	55	1563
Winkley, Frank D., Brooklyn, Wis. Filling attachment	463,088	Nov. 10	1373	355	57	826
Winlow, Albert E., San José, Cal. Buckle	462,755	Nov. 10	841	221	57	722
Winlund, Nicholas J., Rockford, Ill. Circular-knitting machine	451,385	Apr. 28	2572	634	55	523
Winlund, Nicholas J., Rockford, Ill. Circular-knitting machine	451,286	Apr. 28	2573	635	55	524
Winlund, Nicholas J., and E. McSherry, Rockford, Ill. Mechanical movement	450,122	Apr. 7	696	176	55	136
Winlund, Nicholas J., and E. McSherry, assignors of one-third to H. W. Price, Rockford, Ill. Knitting machine	461,211	Oct. 13	1032	261 262	57	204
Winlund, Nicholas J., and E. McSherry, assignors of one-third to H. W. Price, Rockford, Ill. Knitting machine	461,212	Oct. 13	1034	262 263	57	205
Winn, George L., Jersey City, N. J. Check-book	463,567	Nov. 17	2141	565	57	982
Winn, William A., White Hall, Ill. Link valve-gear	463,018	Nov. 10	1260	327	57	804
Winship, George, and F. Garraux, assignors to Winship Machine Company, Atlanta, Ga. Saw cotton-gin	444,080	Jan. 6	158	39	54	34
Winship, Gustavus L., Fairlee, assignor to Opinion Manufacturing Company, Bradford, Vt. Caster	456,458	July 21	1841	488	56	368
Winship, Gustavus L., Fairlee, assignor to Opinion Manufacturing Company, Bradford, Vt. Folding-machine	458,008	Aug. 18	1782	465 466	56	885
Winship Machine Company. (See Winship and Garraux, assignors.)						
Winslow, George H., Pittsburg, Pa. Support for electric conductors	459,168	Sept. 8	985	240	56	1263
Winslow, Joshua B. (See Strange, John F., assignor.)						
Winsor, Clinton B., and G. W. Cummings, Jamestown, N. Y. Mail-bag catcher	447,094	Feb. 24	2596	644	54	1043
Winsor, Frank K., Petoskey, Mich. Machine for manufacturing butter-molds and vinegar-measures out of wood	455,862	July 14	913	239	56	184
Winter, Franz, Baltimore, Md. Dumping-wagon	460,258	Sept. 29	2686	669	56	1614
Winter, Fritz R., Knobnoster, Mo. Attachment for plows	457,689	Aug. 11	1236	317	56	772
Winter, Henry W., Boston, Mass. Heel-trimming machine	447,744	Mar. 3	750	188	54	1260
Winter, Henry W., Boston, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heel-trimming machine	448,310	Mar. 17	1714	434 435	54	1463
Winter, Hiram B., Tyronnall Mines, W. Va. Indicator for post-offices	447,803	Mar. 10	875	218	54	1290
Winterbotham, Joseph, Joliet, Ill. Hoop-guide for barrels	460,346	Sept. 29	2837	706	56	1612
Winterbottom, David. (See Bradbury and Winterbottom.)						
Winterhalter, Louis, Brooklyn, N. Y. Electric alarm-clock	458,206	Aug. 25	3079	538	56	949
Winters, Frank M., assignor of one-half to A. H. Baldwin, Chicago, Ill. Door-bell	465,909	Dec. 29	3044	780	57	1754
Winters, John C., Mount Morris, N. Y. Can-capping machine	450,276	Apr. 14	943	234 235	55	187
Winters, Robert P., Springfield, Ohio. Printing-press	455,377	July 7	126	33, 34	56	28
Winterweber, Heinrich, assignor to F. Flinsch Machine Building Co., Offenbach, near Frankfurt, Germany. Machine for cutting tobacco and other substances	47,095	Feb. 24	2597	644 645	54	1043
Winton, Alexander, Cleveland, Ohio. Bicycle	41,696	Oct. 20	1884	466	57	374
Winton, Charles H., and J. S. Lucock, Allegheny, Pa. Paper-feed device for type-writing machines	52,470	May 19	1678	422	55	906
Winton, Henry D., Wellesley, Mass. Insulator	445,790	Feb. 3	456	113	54	601
Wire Goods Company. (See Parmelee and Bement, assignors.)						
Wire Grip Fastening Company. (See Robinson, Stillman, assignor.)						
Wire Grip Fastening Company. (See Robinson and Watt, assignors.)						
Wirsching, Aloys, and R. Scheffbauer, New York, N. Y. Electric-arc lamp	461,659	Oct. 20	1817	449 450	57	361
Wirt, Charles, Orange, N. J. Electric indicator	444,966	Jan. 20	1604	410	54	329
Wirt, Charles, New York, N. Y. Electrical indicator	448,792	Mar. 24	2491	623	54	1618
Wirt, Charles, Chicago, Ill., assignor to Electrical Supply Company of Illinois. Electric switch	460,618	Oct. 6	116	30	57	25

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Wirt, Herbert C., Boston, Mass. Support for electric line-wires	448,703	Mar. 24	2345	588	54	1591
Wirt, Herbert C., Boston, Mass. Cut-out for incandescent lamps	465,508	Dec. 22	2404	615	57	1620
Wirt, Herbert C., assignor of one-half to J. L. Kimball, Boston, Mass. Detachable ceiling block or bracket for electric lamps	446,826	Feb. 17	2137	531	54	950
Wirth, Joseph, Washington, D. C. Propelling apparatus for vessels	448,810	Mar. 24	2515	630	54	1623
Wirths, Maurice, Jersey City, N. J. Picture-holder	464,053	Dec. 1	66	19	57	1150
Wirtz, Frederick M. and J., Columbus, Ohio. Wrench	451,792	May 5	532	131	55	680
Wirtz, John. (See Wirtz, Frederick M. and J.)						
Wisda, John. (See Wisda, Joseph J., assignor.)						
Wisda, Joseph J., assignor of one-half to J. Wisda, Defiance, Ohio. Car-coupling	462,832	Nov. 10	973	253	57	748
Wisdom, John, Chicago, Ill. Smoke-deflector	444,967	Jan. 20	1606	410	54	329
Wisdom, John, Chicago, Ill. Sectional fire-board and damper connection for fire-places	463,208	Nov. 17	1572	410	57	873
Wise, Benjamin F., assignor of one-half to S. T. Price, St. Louis, Mo. Garbage-receptacle	463,019	Nov. 10	1261	327	57	805
Wise, Cliff. (See Garland, Nathan M., assignor.)						
Wise, Jacob, Daretown, N. J. Corn-harvester	454,102	June 16	1383	362	55	1427
Wise, William B., Elba, Ala. Bridge	447,222	Feb. 24	2838	704	54	1089
Wise, William E., Williamsport, Pa. Game-board	451,354	Apr. 28	2668	661	55	542
Wiseloge, Christian D., assignor to Gale Manufacturing Company, Albion, Mich. Cultivator or harrow tooth	462,675	Nov. 3	714	184	57	688
Wiseloge, Frederick G., Indianapolis, Ind. Apparatus for washing and drying hair, feathers, &c.	465,306	Dec. 15	2067	528	57	1547
Wiseman, Arthur G., Webster Groves, Mo. Clock-synchronizer	452,299	May 12	1372	341	55	841
Wiskocil, Augustin V., Milwaukee, Wis. Carpet-fastener	446,198	Feb. 10	1134	278	54	736
Wisner, Andrew J., Philadelphia, Pa. Air-brake	446,908	Feb. 24	2301	572	54	988
Wissler, Adolph, St. Louis, Mo. Electric switch	458,979	Sept. 1	526	128	56	1166
Wissler, Adolph, St. Louis, Mo. Casing for electric switches	458,880	Sept. 1	528	128	56	1166
Wistar, Dillwyn. (See Ardrey, Robert, assignor.)						
Wiswall, William P. (See Cavert and Wiswall.)						
With, Victor, Horsens, Denmark. Cash-controlling apparatus	453,824	June 9	1008	263	55	1347
Witham, Horace L., assignor of one-half to A. M. Wilkinson, Peabody, Mass. Thill-coupling	454,243	June 16	1586	418	55	1467
Witherow, James P., Pittsburg, Pa. Process of and apparatus for vulcanizing wood	446,501	Feb. 17	1646	402	54	851
Witherow, James P., Pittsburg, and G. Curtis, Allegheny, Pa. Apparatus for vulcanizing wood	446,500	Feb. 17	1642	402	54	851
Withers, Albert Q., Victoria, Miss. Apparatus for strengthening dikes	445,028	Jan. 20	1686	433	54	343
Withey, Henry, Hastings, Mich. Farm-gate	459,472	Sept. 15	1461	368	56	1365
Withmar, Arnold, St. Louis, Mo. Wick-trimmer	458,439	Aug. 25	2475	602	56	1023
Wittenmann, Jacob F., New York, N. Y. Machine for making carbonated beverages	457,978	Aug. 18	1732	454	56	875
Wittenmann, Jacob F., New York, N. Y. Carbonic-acid-gas generator	465,796	Dec. 22	2844	728	57	1707
Witter, Ezra E., Milford Centre, Ohio. Machine for building picket fences	444,726	Jan. 13	1160	299	54	236
Witter, Ezra E., Milford Centre, Ohio. Corn-harvester	458,088	Aug. 18	1886	491	56	906
Wittershacen, Christ. (See Nettmann, Albrecht, assignor.)				492		
Wittig, Louis H., et al. (See Claussen, Edward E., assignor.)				493		
Wittkopf & Co., G. F. (See Thayer and Wittkopf, assignors.)						
Wittkopf, Gustave F. (See Thayer and Wittkopf.)						
Wittkowsky, Carl, Berlin, Germany. Manufacturing imitation of stamped leather-ware	461,062	Oct. 13	800	204	57	161
Wittmann, Ernst, St. Louis, Mo. Sieve or sifter	464,841	Dec. 8	1282	322	57	1389
Wittmann, Georg. (See Kohler and Wittmann.)						
Wittman, Noel E. (See Durfee and Wittman.)						
Wittnauer, Albert. (See Lanten, Edward A., assignor.)						
Witzell, Johan, New York, N. Y. Lamp-lighter	447,393	Mar. 3	194	50, 51	54	1155
Wleck, James, Chicago, Ill. Hydraulic air-pump	464,237	Dec. 1	362	88	57	1202
Wock, John, assignor of two-thirds to J. H. Eller, Canton, Ohio. Eaves-trough	453,989	June 9	1925	318	55	1390
Wock, John, assignor of two-thirds to J. H. Eller, Canton, Ohio. Eaves-trough hanger	453,989	June 9	1926	318	55	1390
Wockenfuss, Friedrich W. (See Berthing, Wockenfuss, and Meyer.)						
Woeffel, George J., Covington, Ky. Construction of iron inclosures	465,509	Dec. 22	2405	615	57	1621
Woerner, Leo, St. Louis, Mo. Steam-trap	451,547	May 5	153	38	55	609
Woesner, John. (See Eckler and Woesner.)						
Woesner, John, Dawson, N. D. Bucksaw	461,063	Oct. 13	801	205	57	161
Wogan, Michael, Chester, Pa. Boat-detaching apparatus	447,421	Mar. 3	241	61	54	1163
Wohlmann, Wilhelm, New York, N. Y. Ham-cover	465,742	Dec. 22	2773	707	57	1693
Wolcott, Arthur H., Winthrop, assignor to J. L. Whiting & Son, Boston, Mass. Brush and making the same	449,061	Mar. 24	2895	735	54	1696
Wolcott, Arthur H., Winthrop, assignor to J. L. Whiting & Son, Boston, Mass. Brush and making the same	450,090	Apr. 7	650	164	55	127
Wolf, Abraham N., Allentown, Pa. Combined dust-collector and aspirator	455,140	June 30	3097	788	55	1767
Wolf, Carl H., Zwickau, Germany. Automatic lighting device	453,456	June 2	449	115	55	1233
Wolf, Charles F. (See Smith, Joshua M., assignor.)						
Wolf, Edward, Baltimore, Md. Shoe-horn	455,083	June 30	3002	763	55	1749
Wolf, Frank M. (See Moore and Wolf.)						
Wolf, Frederick W., Chicago, Ill. Traveling crane	444,968	Jan. 20	1606	411	54	329
Wolf, Josef, Newark, N. J. Spring-hinge	461,908	Oct. 27	2329	551	57	450
Wolf, Josef, Newark, N. J. Spring-hinge	461,909	Oct. 27	2325	551	57	450
Wolf, Lorenz, Spielerville, Ark. Cultivator and seed-planter	452,822	May 26	2225	558	55	1021
Wolfe, Charles H. (See Doffmeyer and Wolfe.)						
Wolfe, Gurdon G., Troy, N. Y. Water-heating attachment for hot-air furnaces	451,793	May 5	533	131	55	680
Wolfe, Harvey R., assignor to Wolfe Manufacturing Company, Louisville, Ky. Street-cleaning machine	448,900	Mar. 24	2657	667	54	1649
Wolfe, Jacob C., New York, N. Y. Backing for electrotype or stereotype shells	447,626	Mar. 3	579	143	54	1227
Wolfe, Jacob C., New York, N. Y. Backing for electrotype or stereotype shells	447,627	Mar. 3	580	143	54	1227
Wolfe, Jacob C., New York, N. Y., assignor to Metal Base Electrotype Company. Railway-tie	464,054	Dec. 1	67	19	57	1150
Wolfe Manufacturing Company. (See Wolfe, Harvey R., assignor.)						
Wolfe, William, St. Louis, Mo. Sole-machine	460,494	Sept. 29	3051	766	56	1682
Wolfe, William, St. Louis, Mo. Heel-seat-beating machine	460,737	Oct. 6	327	80	57	6
Wolfe, Herman, Detroit, Mich. Metallic post	455,084	June 30	3004	763	55	1749

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Wolff, Charles W., Ansonia, Conn. Shedding mechanism for looms	445,791	Feb. 3	459	{ 113 114 }	{ 54 54 }	601
Wolff, David E., Hagerstown, Md. Liquid-measuring vessel	450,383	Apr. 14	1125	275	55	221
Wolff, Edward H. (See Friede, Samuel M., assignor.)						
Wolff, George S., Philadelphia, Pa. Brush or swab for liquid blacking	454,694	June 23	2305	591	55	1609
Wolff, Moritz, Berlin, Germany. Driving tunnels or sinking shafts	460,545	Sept. 29	3151	787	56	1703
Wolff, Rudolf G., Chicago, Ill. Tailor's measuring apparatus	456,184	July 21	1390	{ 368 369 }	{ 56 56 }	283
Wolford, Christopher H., Corry, Pa., assignor of one-half to J. A. Anderson, Bedford, Ohio. Coal-mining machine	444,476	Jan. 13	775	202	54	162
Wolhaupter, Benjamin, Fenton, Mich. Cattle guard for railways	447,394	Mar. 3	196	51	54	1155
Wolhaupter, David P. (See Powell, William H., assignor.)						
Wolke, Hermann, Orange, N. J. Figure toy	464,746	Dec. 8	1148	285	57	1362
Woll, Peter, Jr., Philadelphia, Pa. Manufacturing curled hair	458,721	Sept. 1	266	.....	56	1116
Wollensak, Andreas. (See Bausch, Hommel, and Wollensak.)						
Wollensak, John F. (See Earl, Frederick D., assignor.)						
Wollensak, John F., Chicago, Ill. Electric bell	445,295	Jan. 27	2105	545	54	435
Wollensak, John F., Chicago, Ill. Electric push	459,605	Sept. 15	1679	419	56	1406
Wollensak, John F., and W. E. Gill, Chicago, Ill. Open-circuit battery. (Reissue)	11,207	Dec. 1	738	180	57	1276
Wollman, Maurice, Council Bluffs, Iowa. Watch-maker's tool	456,975	Aug. 4	83	20	56	549
Wollmann, Carl T., Berlin, Germany. Wagon-wheel	462,387	Nov. 3	272	67	57	602
Wolpert, Heinrich, Nuremberg, Germany. Pocket apparatus for determining the amount of carbonic acid in mixtures of gases	464,543	Dec. 8	828	203	57	1302
Wolsey, Frederick Y., London, England. Holder for cutters and combs for sheep-shears, horse-clippers, and similar instruments	448,286	Mar. 17	1673	424	54	1455
Wolsiffer, Frederick T. (See Cornelius, John, assignor.)						
Wolstencroft, James. (See Pullman, Harry B., assignor.)						
Wolstencroft, James, and W. H. Soley, Philadelphia, Pa. Fire-extinguisher	461,089	Oct. 13	838	216	57	168
Womack, Lewis L., Zephyr, Tex. Cotton-stalk puller	446,276	Feb. 10	1285	314	54	766
Wommner, Louis, assignor of one-half to A. W. Paris, Minneapolis, Minn. Centrifugal cleaner	449,788	Apr. 7	222	56	55	45
Wonacott, John R., assignor of one-half to S. R. May, Mount Zion, Ill. Flood-fence	459,162	Sept. 8	971	236	56	1261
Woncher, Martin V., Brooklyn, assignor to J. Monds and J. Ryan, New York, N. Y. Candle-holder	450,277	Apr. 14	947	235	55	188
Wonders, Francis M., Alliance, Ohio. Molder's flask	456,185	July 21	1393	369	56	284
Wood, Albert A., assignor to Brosius Motor Sewing Machine Company, Atlanta, Ga. Spring-motor	458,123	Aug. 18	1944	{ 505 506 }	{ 56 56 }	917
Wood, Alexander, Philadelphia, Pa. Steno-telegraphic apparatus	460,619	Oct. 6	117	30, 31	57	25
Wood, Alfred, Detroit, Mich. Fire-escape	444,404	Jan. 6	661	{ 171 172 }	{ 54 54 }	131
Wood, Allen G., and F. E. Howarth, Utica, N. Y. Suppository-machine	460,620	Oct. 6	120	31	57	26
Wood, Anson B., Lynchburg, Va. Mail-bag catcher	452,300	May 12	1373	342	55	841
Wood, Arthur B., Troup, N. Y. Refrigerating attachment for water-mains	455,456	July 7	247	63	56	50
Wood, Charles. (See Evinger, Noah, assignor.)						
Wood, Charles, Boston, assignor of two-thirds to G. Hill, Newton, Mass. Machine for napping cloth	459,353	Sept. 8	1266	312	56	1320
Wood, Charles, Boston, assignor of two-thirds to G. Hill, Newton, Mass. Cloth-napping machine	459,354	Sept. 8	1267	{ 312 313 }	{ 56 56 }	1320
Wood, Charles E., Louisville, Ky. Combined stove and fire-place	465,910	Dec. 29	3045	780	57	1755
Wood, Charles W., Other, Ga. Guano-distributor and seed-planter	465,081	Dec. 15	1699	432	57	1478
Wood, Commodore R., Willow Point, Tex. Washing-machine	450,718	Apr. 21	1602	400	55	340
Wood, Edwin, Johnston, assignor to British Hosiery Company, Thornton, R. I. Guide for sewing-machines	455,378	July 7	129	34	56	29
Wood, Elbert E., Brooklyn, N. Y. Ironing-board	447,745	Mar. 3	752	188	54	1260
Wood, Eliza A., Easton, N. Y. Mop pad and wringer	446,909	Feb. 24	2303	573	54	988
Wood, Ferdinand E., San Jacinto, Cal. Table	458,930	Sept. 1	599	147	56	1181
Wood, Frances F., New York, N. Y. Agitator	459,668	Sept. 15	1789	450	56	1427
Wood, Frank B., New York, N. Y., assignor to Brewer & Smith Visual Signal Company, New Haven, Conn. Multiple call-box	446,199	Feb. 10	1135	278	54	736
Wood, Frank B., New York, N. Y., assignor to Brewer & Smith Visual Signal Company, New Haven, Conn. Electric signaling system	462,345	Nov. 3	195	49, 50	57	588
Wood, Frank B., assignor to T. W. Bayand, New York, N. Y. Hotel-indicator	454,924	June 30	2708	692	55	1691
Wood, Frank B., assignor to T. W. Bayand, New York, N. Y. Non-interfering successive signaling system and apparatus	461,464	Oct. 20	1450	365	57	295
Wood, Franklin B., Detroit, Mich. Game apparatus	459,952	Sept. 22	2229	560	56	1518
Wood, Franklin J., assignor of one-half to M. E. Blanchard, Newark, N. J. Coin-controlled vending-machine	447,267	Feb. 24	2919	725	54	1105
Wood, Franklin J., assignor of one-half to M. E. Blanchard, Newark, N. J. Vending apparatus	422,024	Oct. 27	2403	{ 506 507 }	{ 57 57 }	483
Wood, Fred W., and J. Fowler, Los Angeles, Cal. Guard for street-railway cars	445,236	Jan. 27	2021	521	54	419
Wood, Fred W., and J. Fowler, Los Angeles, Cal. Gripping-machine for cable roads	448,287	Mar. 17	1674	424	54	1455
Wood, Frederick W., Baltimore, Md. Metal-rolling mill	457,946	Aug. 18	1681	{ 440 441 }	{ 56 56 }	866
Wood, George E., Terre Haute, Ind. Canopy-top for vehicles	459,862	Sept. 22	2092	525	56	1493
Wood, George W., Philadelphia, Pa. Device for feeding boiler-furnaces	446,959	Feb. 24	2371	590	54	1000
Wood, George W., Philadelphia, Pa. Furnace	458,207	Aug. 25	2081	{ 538 539 }	{ 56 56 }	949
Wood, George W., Philadelphia, Pa. Furnace-grate	458,208	Aug. 25	2082	539	56	950
Wood, Harry C., New Brighton, Pa. Machine for polishing glassware	445,708	Feb. 3	318	24	54	575
Wood, Harry C., New Brighton, Pa., assignor of one-half to J. M. Wood, Bellaire, Ohio. Glass-finishing furnace	452,205	May 12	1231	311	55	814
Wood, Horace F., and J. F. Young, Indianapolis, Ind. Harness attachment	458,881	Sept. 1	528	129	56	1166
Wood, Horace O., and S. S. Smith, Vernon, Tex. Railway-gate	452,301	May 12	1375	342	55	841
Wood, James, Thornstown, Ind. Game-board	446,942	Feb. 24	2349	544	54	996
Wood, James J., Brooklyn, N. Y. Electric meter	455,524	July 7	351	{ 90 91 92 }	{ 56 56 56 }	70
Wood, James J., Brooklyn, N. Y. Lightning-arrester	460,289	Sept. 29	2747	{ 684 685 }	{ 56 56 }	1625
Wood, James J., Brooklyn, N. Y., assignor to Fort Wayne Electric Company, Fort Wayne, Ind. Carbon-holder for arc lamps	462,756	Nov. 10	841	221	57	722
Wood, James W., Poughkeepsie, N. Y. Inhaler and medicine-holder	466,130	Dec. 29	3419	875	57	1827
Wood, John G., Pillar Point, N. Y. Hame-fastener	451,098	Apr. 28	2244	556	55	461
Wood, John W., Philadelphia, Pa. Street-cleaning machine	452,153	May 12	1148	290	55	798

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Wood, Joseph, Red Bank, N. J. Lubricator.....	446,049	Feb. 10	882	215	54	692
Wood, Joseph M. (See Wood, Harry C., assignor.)						
Wood, Julian P., <i>et al.</i> (See Pratt, Ransom D., assignor.)						
Wood, Lizzie F., West Lebanon, N. H. Aerator for milk or other liquids.....	448,568	Mar. 17	2112	529	54	1539
Wood Machine Company, S. A. (See Thomas, John R., assignor.)						
Wood Mowing and Reaping Machine Company, Walter A. (See Howe, George H., assignor.)						
Wood, Nimrod P. (See Frick and Wood.)						
Wood, Philander, Belvidere, Ill. Gate.....	448,402	Mar. 17	1863	469	54	1491
Wood, Robert. (See Haire, William H., assignor.)						
Wood, Sylvester G., Providence, R. I. Ratchet check sorter and file.....	464,544	Dec. 8	828	203	57	1302
Wood, Walter. (See Graves, Erwin, assignor.)						
Wood, Walter. (See Hill, Samuel A., assignor.)						
Wood, Walter, Philadelphia, Pa. Traveling crane. (Reissne).....	11,142	Feb. 3	736	¹⁷⁹ 180	54	657
Wood, Walter, Philadelphia, Pa. Traveling crane.....	456,186	July 21	1394	³⁶⁹ 370	56	284
Wood, Walter, Philadelphia, Pa. Traveling crane.....	456,187	July 21	1396	370	56	284
Wood, Walter, Philadelphia, Pa. Traveling crane.....	456,188	July 21	1397	370	56	285
Wood, William A., Montreal, Canada. Thimble.....	464,545	Dec. 8	829	204	57	1302
Wood, William B. (See Hickox, Robert A., assignor.)						
Wood, William C., assignor to Lewis & Fowler Girder-Rail Company, Brooklyn, N. Y. Railway-chair spike.....	447,268	Feb. 24	2921	726	54	1105
Wood, William C., assignor to Lewis & Fowler Girder-Rail Company, Brooklyn, N. Y. Girder-rail and its fastening.....	450,594	Apr. 14	1427	351	55	280
Wood, William C., assignor to Lewis & Fowler Girder-Rail Company, Brooklyn, N. Y. Chair for girder-rails.....	459,717	Sept. 15	1861	467	56	1441
Wood, William C., assignor to Lewis & Fowler Girder-Rail Company, Brooklyn, N. Y. Chair for girder-rails.....	459,893	Sept. 22	2143	539	56	1503
Wood, William C., assignor to Lewis & Fowler Girder-Rail Company, Brooklyn, N. Y. Blank for girder-rail clamps.....	460,517	Sept. 29	3103	770	56	1693
Wood, William C., assignor to Lewis & Fowler Girder-Rail Company, Brooklyn, N. Y. Girder-rail track for street-railways.....	460,927	Oct. 6	604	¹⁵³ 154	57	118
Wood, William C., assignor to Lewis & Fowler Girder-Rail Company, Brooklyn, N. Y. Track for street-railways.....	461,090	Oct. 13	839	217	57	168
Wood, William C., Brooklyn, N. Y., and J. W. Watson, Chester, Pa., assignors to Lewis & Fowler Girder-Rail Company, Brooklyn, N. Y. Girder-rail rolls for rolling-mills.....	454,244	June 16	1588	418	55	1468
Wood, William D. (See Votey and Wood.)						
Wood, William E. (See Henry and Wood.)						
Wood, William G., deceased, (C. F. Conrad administrator,) assignor of three-fourths to T. A. Bourke, J. A. Smith, C. H. Delisle, and J. McArdle, Windsor, Canada. Manufacturing gas.....	454,925	June 30	2713	692	55	1692
Woodall, Charles Y., <i>et al.</i> (See Jordan, Henry, assignor.)						
Woodard, Alonzo B., Hornellsville, N. Y. Fencing-strand.....	447,927	Mar. 10	1179	270	54	1329
Woodard, Alonzo B., Hornellsville, N. Y. Fence-strand.....	462,887	Nov. 10	1063	275	57	766
Woodard, Edward C., Campello, Mass. Last for creasing boot or shoe uppers.....	415,360	Jan. 27	2203	571	54	456
Woodard, George B., Olean, N. Y. Heating-stove.....	462,186	Oct. 27	2654	665	57	530
Woodard, Lyman E., Owosso, Mich. Coffin-handle.....	453,527	June 2	546	140	55	1251
Woodbridge, Milton. (See Müller and Woodbridge.)						
Woodbury, Edward, assignor to American Playing Card Company, Kalamazoo, Mich. Game apparatus.....	464,469	Dec. 1	707	172	57	1270
Woodbury, F. E. (See Woodbury, Leander S., assignor.)						
Woodbury, George E., San Francisco, Cal. Ore-concentrating machine.....	465,979	Dec. 29	3156	⁸⁰⁸ 809	57	1775
Woodbury, Leander S., Detroit, Mich., assignor to F. E. Woodbury, Iron Mountain, Mich. Primer for fuses.....	457,391	Aug. 11	785	202	56	686
Woodbury, Stephen W., Winchester, N. H. Cotton-feeder.....	445,916	Feb. 3	653	160	54	610
Woodcock, John C., New Lexington, Ohio. Grinding-mill.....	447,596	Mar. 3	530	130	54	1217
Woodford, Romanta D., and G. C. Raymond, Binghamton, N. Y. Shaping-machine.....	445,617	Feb. 3	155	41	54	541
Woodhead, Frederick. (See Lord and Woodhead.)						
Woodhouse, Albert E., Amberley, New Zealand. Grain-binder.....	450,346	Apr. 14	1063	261	55	210
Woodhouse, Otway E. (See Cunynghame, Rawson, and Woodhouse.)						
Woodhouse & Rawson, United. (See Bryan, Frank, assignor.)						
Woodhull, Charles A., New York, N. Y. Banjo.....	450,442	Apr. 14	1215	296	55	238
Woodling, Reason L., Logansport, Ind. Check-row corn-planter.....	463,8-1	Nov. 24	2653	691	57	1087
Woodman, Frank B., Cedar Rapids, Iowa. Car-coupling.....	457,447	Aug. 11	866	225	56	702
Woodmancy, George B., Randolph, N. Y. Oil-cup attachment for journal-boxes.....	459,129	Sept. 8	922	222	56	1252
Woodmancy, Henry F., Whitinsville, Mass. Spindle-support for spinning and twisting machines.....	455,525	July 7	360	92	56	71
Woodruff, Alonzo, Auburn, N. Y. Type-writing machine.....	445,214	Jan. 27	1989	513	54	413
Woodruff, Alonzo, Auburn, N. Y. Inking-pail.....	456,607	July 28	2087	552	56	423
Woodruff, Frederick D., Maywood, Ill. Fire-place heater.....	448,103	Mar. 10	1350	³⁴⁵ 346	54	1383
Woods, Charles E., Chattanooga, Tenn. Door-hanger.....	465,307	Dec. 15	2069	529	57	1547
Woods, Edward P., <i>et al.</i> (See Jenne, Henry S., assignor.)						
Woods, George H., Hartford, Conn. Type-writing machine.....	461,790	Oct. 20	2030	501	57	402
Woods, Granville T., assignor to American Engineering Company, New York, N. Y. Electric-railway system.....	463,020	Nov. 10	1262	³²⁷ 328	57	805
Woods, James F. (See Scates and Woods.)						
Woods, Phidiller S. (See Bowman, Archibald G., assignor.)						
Woods, Richard, Boston, Mass. Railway-switch.....	453,825	June 9	1009	263	55	1347
Woods, Sherwood & Co. (See Devoll, Andrew J., assignor.)						
Woods, William A., Santa Cruz, Cal., assignor to Pacific Coast Gold-Saving Company, of California. Gold saver and concentrator.....	455,498	July 7	311	79, 80	56	63
Woods, William L. (See Kelley and Woods.)						
Woodstock, Henry C., Branford, assignor of one-half to E. Zacher, New Haven, Conn. Sash-fastener.....	455,085	June 30	3004	764	55	1749
Woodsum, Daniel R. and F. M., Harrison, Me., assignors of one-third to J. E. Robertson, Concord, N. H. Engine attachment.....	445,943	Feb. 3	698	170	54	649
Woodsum, Frank M. (See Woodsum, Daniel R. and F. M.)						
Woodward, Charles E., <i>et al.</i> (See Christian, Charles, assignor.)						
Woodward, Charles E. W., assignor to Overman Wheel Company, Chicopee Falls, Mass. Vehicle-wheel.....	464,767	Dec. 8	1180	293	57	1368
Woodward, Edward, Keith, Tex. Wire-stretcher.....	457,469	Aug. 11	899	232	56	707

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Woodward, Erastus, Somerville, Mass. Pegging-jack	462,937	Nov. 10	1153	299	57	782
Woodward, James K., <i>et al.</i> (See Christian, Charles, assignor.)						
Woodward, John H., Rochester, N. Y. Fruit-picker	460,903	Oct. 6	575	145	57	112
Woodward, John K., Riverside, Cal. Prop.	456,263	July 21	1321	404	56	308
Woodward, M. A., <i>et al.</i> (See Carnahan, Cyrus M., assignor.)						
Woodward, Russel G., Waukegan, assignor to Union Special Sewing Machine Company, Chicago, Ill. Presser-foot for sewing-machines	446,575	Feb. 17	1753	431	54	873
Woodward, Russel G., Waukegan, assignor to Union Special Sewing Machine Company, Chicago, Ill. Sewing-machine	465,743	Dec. 22	2774	708	57	1693
Woodward, Russel G., Waukegan, assignor to Union Special Sewing Machine Company, Chicago, Ill. Sewing-machine	466,264	Dec. 29	3619	926 927	57	1865
Woodward, Thomas A. (See Barton, Isaac T., assignor.)						
Woodward, Willis J. (See Barckdall, Daniel, assignor.)						
Woodworth, James E. (See Stager, Henry E., assignor.)						
Woodworth, Seibert, Ellinwood, Kans. Car-coupling	455,141	June 30	3098	788	55	1767
Woody, Sidney F. (See Cogswell and Woody.)						
Woolaston, Joseph H., assignor to Barnes Manufacturing Company, New Haven, Conn. Cylinder-lock	452,588	May 19	1851	465	55	939
Woolcott, Charles M., and A. E. Wilmot, assignors to T. W. Robertson and C. E. Ongley, New York, N. Y. Circuit-controller and alarm	445,306	Jan. 27	2119	548	54	438
Woolcott, Henry J., assignor of one-half to B. B. Stewart, Staten Island, N. Y. Milling machinery	456,231	July 21	1471	391	56	298
Wooldrige, Ezra, Long Lake, Ill. Potato-planter	453,228	June 2	71	18	55	1162
Woolley, George W., St. Paul, Minn., assignor, by mesne assignments, of one-half to J. Z. Roraback, Kansas City, Mo. Lock	446,375	Feb. 10	1429	351	54	796
Woolley, Leonidas G., Grand Rapids, Mich. Vaporizer for gas-engines	450,091	Apr. 7	651	164	55	127
Woolley, Leonidas G., Grand Rapids, Mich. Electro-magnetic apparatus	450,923	Apr. 21	1975	485	55	399
Woolley, Leonidas G., Grand Rapids, Mich. Magneto-electric ignitor for combustible-vapor engines	464,347	Dec. 1	539	131	57	1236
Woolf, Ellis J., assignor to Woolf Valve Gear Company, Minneapolis, Minn. Valve-gear for engines	444,563	Jan. 13	923	240 241	54	191
Woolf, Ellis J., and J. Peebles, assignors to Woolf Valve Gear Company, Minneapolis, Minn. Valve-gear for engines	455,872	July 14	929	243 244	56	187
Woolf Valve Gear Company. (See Woolf, Ellis J., assignor.)						
Woolf Valve Gear Company. (See Woolf and Peebles, assignors.)						
Woolfolk, Lucien B., Cincinnati, Ohio. Fountain-pen	457,470	Aug. 11	900	232	56	707
Woolgar, William, East Saginaw, Mich. Bolt-cutter	459,620	Sept. 15	1706	427	56	1410
Woolman, Augustus C., Bellefontaine, Ohio. Harness-loop press	446,804	Feb. 17	2104	523	54	943
Woolsey, Isaac C., Geneseo, Kans. Book-case	447,628	Mar. 3	582	144	54	1227
Woolridge, John, Chicago, Ill. Butter molding and measuring machine	461,559	Oct. 20	1659	406	57	333
Woolsey, John S., San José, Cal. Lawn-sprinkler	457,099	Aug. 4	259	67	56	583
Woolson, Egbert, Brooklyn, N. Y., assignor to A. Solmans, South Norwalk, Conn. Vehicle-wheel	446,910	Feb. 24	2304	573	54	988
Woolworth, Calvin C., <i>et al.</i> (See Bunce, William H., assignor.)						
Wooster, Charles I., Camden, N. J. Puzzle	466,124	Dec. 29	3406	872	57	1824
Wooster, Frederick J., and R. L. Andrus, Waterbury, Conn. Rack for molds	447,804	Mar. 10	876	218	54	1291
Worden, George W., Lewiston, N. Y. Crate	444,657	Jan. 13	1051	273	54	216
Work, Bertram G., <i>et al.</i> (See Krotz, Alvaro S., assignor.)						
Workman, Joseph H., Chicago, Ill. Binding books	455,894	July 14	962	251	56	193
Worley, Mary J., Shelbyville, Ill. Pencil-case	457,947	Aug. 18	1682	441	56	866
Worms, Eugène, and A. S. Zwierzchowski, Paris, France. Mechanism for converting motion	451,175	Apr. 28	2370	589	55	4-6
Worms, Eugène, and A. S. Zwierzchowski, Paris, France. Velocipede	451,588	May 5	219	52	55	621
Worrall, Thomas H. (See Lesperance, Alexander, assignor.)						
Worrall, Thomas H., Laconia, N. H. Circular plush-goods knitting-machine	459,902	Sept. 22	2166	544	56	1506
Worrall, Thomas H., and A. Lesperance, Laconia, N. H.; said Lesperance assignor to said Worrall. Clutch	463,820	Nov. 24	2541	663	57	1067
Worrell, Edwin C., Murfreesborough, N. C. Combined cultivator, planter, and fertilizer-distributor	451,099	Apr. 28	2245	556	55	461
Worsell, John H., Clinton, Canada. Bed-pan	466,068	Dec. 29	3319	848	57	1807
Worsley, Samuel L., Taunton, Mass., assignor to Brown & Sharpe Manufacturing Company, Providence, R. I. Tool-holder	459,807	Sept. 22	1999	503	56	1474
Worth, William O., assignor to Chicago Bicycle Company, Cedar Rapids, Iowa. Bicycle pedal	444,868	Jan. 20	1633	372	54	296
Worth, William O., assignor to Chicago Bicycle Company, Cedar Rapids, Iowa. Bicycle pedal	447,395	Mar. 3	197	51	54	1155
Worthington, Charles C., <i>et al.</i> (See Alberger, Louis R., assignor.)						
Worthington, Charles C., <i>et al.</i> (See Nickel, Franz F., assignor.)						
Worthington, Charles C., <i>et al.</i> (See Schwanhauser, William, assignor.)						
Worthington, Charles C., Irvington, N. Y. Accumulator	445,917	Feb. 3	654	160	54	640
Worthington, Charles C., Irvington, N. Y. Surface condenser	447,396	Mar. 3	198	52, 53	54	1156
Worthington, Charles C., Irvington, N. Y. Direct-acting engine	448,744	Mar. 24	2419	605	54	1604
Worthington, Charles C., Irvington, N. Y. Cut-off gear for steam-engines	451,147	Apr. 28	2328	578 579	55	477
Worthington, Charles C., Irvington, N. Y. Pressure-equalizer	451,148	Apr. 28	2332	579	55	477
Worthington, Charles C., Irvington, N. Y. Valve-motion for duplex engines	455,555	July 7	414	109 110 111	56	80
Worthington, Charles C., Irvington, N. Y. Accumulator for direct-acting engines	455,935	July 14	1020	267 268	56	204
Worthington, Charles C., Irvington, and A. J. Caldwell, Brooklyn, N. Y.; said Caldwell assignor to said Worthington. Duplex engine	444,543	Jan. 13	885	230 231	54	184
Worthington, Thomas K., <i>et al.</i> (See Silkman, Edward J., assignor.)						
Worthley, Frank O., Boston, Mass. Manger	459,032	Sept. 8	762	185	56	1221
Wortmann, Sigismund B. (See Dieterich, Gustave, assignor.)						
Wortmann, Sigismund B., New York, N. Y. Device for uncoupling cars	453,030	May 26	2563	649	55	1086
Wortmann, Sigismund B., New York, N. Y. Car-brake	453,790	June 9	967	252	55	1339
Wortmann, Sigismund B., New York, N. Y. Mechanical movement	461,993	Oct. 27	2359	585	57	474
Wortmann, Sigismund B., New York, N. Y. Mechanical movement	461,994	Oct. 27	2361	585	57	475
Wottring, Sylvanus L. and W. C. Prospect, Ohio. Fanning-mill	450,855	Apr. 21	1882	461	55	381
Wottring, William C. (See Wottring, Sylvanus L. and W. C.)						
Woven Wire Machinery Company. (See White and Lloyd, assignors.)						
Wray, George E. (See Harvey, John W., assignor.)						
Wren, Charles D. (See Bates and Wren.)						
Wrenn, McD. L. (See Whitehurst, Robert W., assignor.)						
Wrenshall, Charles C., Anniston, Ala. Combination tie-plate and rail-clip	450,305	Apr. 14	987	245	55	196

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Wrigglesworth, James D. and F. C. Binns, Wellington, New Zealand. Giving a matte surface to aluminized-silver-paper photographs	460,621	Oct. 6	122	57	26
Wright, Alexander P., Boston, assignor to A. Lord, trustee, Plymouth, Mass. Conduit for electric wires	444,477	Jan. 13	776	202	54	162
Wright, Allen J., Cleveland, Ohio. Float	450,856	Apr. 21	1884	461	55	382
Wright, Allen J., Cleveland, Ohio. Float	450,857	Apr. 21	1886	461	55	382
Wright, Allen J., Cleveland, Ohio. Brake mechanism for cars	456,608	July 28	2088	553	56	423
Wright, Allen J., Cleveland, Ohio. Brake mechanism for cars	456,609	July 28	2091	553	56	424
Wright, Arthur C. (See Gates, William H., assignor.)						
Wright, Charles A. (See Hunter, Randolph M., assignor.)						
Wright, Charles A., Philadelphia, Pa. Machine for cutting the edges of cards	454,551	June 23	2066	534	55	1565
Wright, Charles A., Philadelphia, Pa. Card-cutting machine	459,920	Sept. 22	2188	550	56	1510
Wright, Charles A., Philadelphia, Pa. Machine for treating cards	461,860	Oct. 27	2140	527 528	57	432
Wright, Charles A., Philadelphia, Pa. Machine for applying metallic leaf to cards or similar articles	461,861	Oct. 27	2144	528	57	433
Wright, Charles E., Waterbury, Conn. Band-saw guide	446,127	Feb. 10	1008	249	54	716
Wright, Charles R. A. and P. A., London, England. Window-cleaner	462,905	Nov. 10	1094	284	57	772
Wright, Charles S., assignor to E. M. Wright, Skaneateles, N. Y. Knife-guard	460,928	Oct. 6	606	154	57	118
Wright, Chester, Fairfield, Nebr. Potato-digger	445,868	Feb. 3	585	143	54	626
Wright, Daniel K., Afton, Iowa. Washing-machine	456,370	July 21	1691	446	56	340
Wright, Edward, Southend, England. Latch	445,108	Jan. 20	1816	469 470	54	370
Wright, Edward, Worcester, assignor to Davis & Furber Machine Company, North Andover, Mass. Pitman-connection for looms	444,738	Jan. 13	1194	309	54	242
Wright, Edward, Worcester, assignor to Davis & Furber Machine Company, North Andover, Mass. Loom	452,328	May 12	1434	354 355	55	852
Wright, Edward G., Kansas City, Mo. Composition of matter for cable-filling	446,502	Feb. 17	1650	.....	54	852
Wright, Edward T., assignor to O. S. Kelly Company, Springfield, Ohio. Steam road-roller	466,281	Dec. 29	3649	933	57	1870
Wright, Eliza M., Brooklyn, N. Y. Broom-holder	461,252	Oct. 13	1099	280	57	219
Wright, Ella M. (See Wright, Charles S., assignor.)						
Wright, Erastus Z., receiver. (See Segar, Charles T., assignor.)						
Wright, Fred A., and I. Yeamans, Meriden, Conn. Die for forming articles from sheet metal	452,558	May 19	1807	454	55	931
Wright, Frederic W., New York, N. Y. Hose or pipe coupling	464,146	Dec. 1	208	50	57	1176
Wright, Frederick K., Syracuse, N. Y. Tubular lantern	449,094	Mar. 24	2946	746	54	1706
Wright, Frederick K., assignor to Steam Gauge and Lantern Company, Syracuse, and R. E. Dietz Company, New York, N. Y. Metallic tube	459,211	Sept. 8	1049	255	56	1276
Wright, Frederick K., assignor to Steam Gauge and Lantern Company, Syracuse, and R. E. Dietz Company, New York, N. Y. Tubular lantern	461,064	Oct. 13	802	205	57	161
Wright, Frederick W., New York, N. Y. Hose-coupling	449,789	Apr. 7	323	57, 58	55	45
Wright, George B., assignor to C. H. Leonard, Grand Rapids, Mich. Combined latch and lock	464,222	Dec. 1	341	82	57	1198
Wright, George S., <i>et al.</i> (See Molesworth, Francis H., assignor.)						
Wright, George W., Avalon, Tex. Wire-stretcher	464,546	Dec. 8	830	204	57	1302
Wright, Gordon A., Massena, N. Y. Machine for drawing in perspective	453,332	June 2	236	63, 64	55	1193
Wright, Granville W., assignor to Sargent & Company, New Haven, Conn. Plane	445,792	Feb. 3	463	114	54	602
Wright, Granville W., assignor to Sargent & Company, New Haven, Conn. Plane	445,793	Feb. 3	464	114	54	602
Wright, Granville W., assignor to Sargent & Company, New Haven, Conn. Push-button	459,066	June 30	3006	764	55	1749
Wright, Granville W., assignor to Sargent & Company, New Haven, Conn. Door-check	456,748	July 28	2332	615	56	469
Wright, Granville W., assignor to Sargent & Company, New Haven, Conn. Door-check	463,821	Nov. 24	2543	663	57	1067
Wright, Henry C. (See Dickey, Foster, assignor.)						
Wright, Henry H., <i>et al.</i> (See Cole, Henry W. and A. F., assignors.)						
Wright, Henry H., near Newport, Pa. Hay-fork	454,103	June 16	1385	362	55	1427
Wright, Herbert A., Detroit, assignor of two-thirds to W. M. Reason, T. C. Quinn, A. T., Slaght, L. H. Corcoran, and J. F. Seeley, Caro, Mich. Type-writing machine	449,021	Mar. 24	2830	717 718	54	1663
Wright, Homer, Pittsburg, Pa. Manufacture of jug-tops	447,502	Mar. 3	393	96	54	1192
Wright, J. O., <i>et al.</i> (See Welch, James L., assignor.)						
Wright, James L., and H. Heine, Milwaukee, Wis. Trimming attachment for sewing-machines	462,833	Nov. 10	974	253	57	749
Wright, Joel F., Hartford, Conn. Artificial tooth	448,745	Mar. 24	2421	605	54	1605
Wright, John A. (See Blakey, Thomas W., assignor.)						
Wright, John E., New York, N. Y. Printing-telegraph	460,328	Sept. 29	2807	699 700	56	1636
Wright, John E., New York, N. Y. Printing-telegraph instrument	460,457	Sept. 29	2991	748 749	56	1670
Wright, John H., Louisville, Ky. Hydraulic lime	460,697	Oct. 6	273	.....	57	54
Wright, John J., Bremen, Ind. Gate-hinge	445,387	Jan. 27	2236	580	54	462
Wright, John J., Burlington, Vt. Refrigerator	455,556	July 7	416	111	56	81
Wright, John S., Greenfield, Mass. Balance-wheel	444,081	Jan. 6	159	40	54	34
Wright, Joseph W., Guion, Tex. Adding-machine	451,967	May 12	808	205 206	55	739
Wright, Judson E., assignor of one-half to W. B. Moore, Chicago, Ill. Stock-car	455,697	July 7	643	169 170	56	124
Wright, Lebius A., <i>et al.</i> (See Palmer, Irenas J., assignor.)						
Wright, Levi P., <i>et al.</i> (See Krieger, John G., assignor.)						
Wright, Louis S., Philadelphia, Pa. Apparatus for actuating and controlling the valves of hydraulic cylinders, &c.	451,100	Apr. 28	2248	557	55	461
Wright, Louis S., assignor to Liuk Belt Engineering Company, Philadelphia, Pa. Boring-cutter	454,585	June 23	2126	548	55	1576
Wright, Ludwin F., Baltimore, Md. Combined ratchet-drill brace and breast-drill	452,589	May 19	1852	466	55	939
Wright, Lysander, Jr. (See Wright, Marcus L., assignor.)						
Wright, Marcus L., Newton, assignor of one-half to L. Wright, Jr., Newark, N. J. Heel-seat-forming and edge-setting machine	446,399	Feb. 10	1469	361	54	804
Wright, Mark W., Baltimore, Md. Hand-power grass-cutting machine	462,788	Nov. 10	898	235	57	733
Wright, Orrin D., assignor to Oneida Community, Limited, Kenwood, N. Y. Wire chain-link	447,597	Mar. 3	532	131	54	1217
Wright, Parvin, Denver, Colo. Electric heater	464,055	Dec. 1	67	19	57	1150
Wright, Pliny J. (See Sampson and Wright.)						
Wright, Priscilla A. (See Wright, Charles R. A. and P. A.)						
Wright, Richard C., Koken, Ind. Hair-clipper	448,901	Mar. 24	2658	667	54	1649
Wright, Robert S., Boston, Mass. Lounge	446,243	Feb. 10	1232	301	54	756
Wright, Samuel, assignor to himself, J. Muir, and W. Boyd, Glasgow, Scotland. Mechanism for the manufacture of casks, barrels, and the like	452,629	May 19	1918	482	55	952

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Wright, Syrus W., Eden, Ala. Car-coupling.....	454,970	June 30	2788	710	55	1706
Wright, Syrus W., Eden, Ala. Car-coupling.....	456,074	July 14	1225	322	56	241
Wright, Thomas F., and E. G. Wilson, Chicago, Ill. Induction-preventive for telephones.....	447,858	Mar. 10	962	241	54	1307
Wright, Thomas W., New Brighton, assignor of one-half to W. J. Alford, Beaver Falls, Pa. Manufacture of shovels.....	455,587	July 7	471	122	56	91
Wright, Walter B., assignor to International Gas and Fuel Company, Chicago, Ill. Fluid-fuel limekiln.....	459,693	Sept. 15	1820	457	56	1433
Wright, Walter B., assignor to International Gas and Fuel Company, Chicago, Ill. Re-heating welding-furnace.....	461,155	Oct. 13	928	240	57	185
Wright, Walter C., Philadelphia, Pa. Clinch.....	455,978	July 14	1088	286	56	215
Wright, Walter C., Philadelphia, Pa. Electric railway.....	458,931	Sept. 1	600	{ 147 148 }	56	1181
Wright, Walter C., Philadelphia, Pa. Electric railway.....	458,932	Sept. 1	603	148	56	1182
Wright, Walter S., Chicago, Ill. Gas-stove.....	450,278	Apr. 14	948	235	55	188
Wright, Washington, Clayton, N. J. Ventilator.....	453,057	May 26	2609	{ 659 660 }	55	1095
Wright, Wiley B., Nelson, Nebr. Hog-pen.....	461,302	Oct. 13	1173	299	57	235
Wright, William, Newburg, N. Y. Steam-engine.....	445,334	Jan. 27	2167	561	54	448
Wright, William, New York, N. Y., assignor to Wright's Denver and San Francisco Electric Light Company, of Colorado. Battery compound.....	446,544	Feb. 17	1709	.....	54	864
Wright, William, and J. M. Barrett, Warrior Station, Ala. Shovel.....	456,459	July 21	1842	488	56	368
Wright, William A., Centreton, N. J., assignor of two-thirds to T. H. Camp, Brooklyn, and W. H. Chandler, New York, N. Y. Lamp.....	446,400	Feb. 10	1471	361	54	804
Wright, William A., assignor of one-half to J. W. Walsh, Philadelphia, Pa. Scale.....	451,677	May 5	357	88	55	647
Wright, William B., Boston, Mass. Paper-carrying attachment for type-writing machines.....	448,288	Mar. 17	1677	425	54	1455
Wright, William H., Buffalo, N. Y. Rail for street-railway service and chair for the same.....	446,589	Feb. 17	1772	437	54	877
Wright, William H. H., San Francisco, assignor of one-half to G. W. Lewis, Oakland, Cal. Spring-seat for vehicles.....	447,928	Mar. 10	1080	270	54	1329
Wright, William K., La Grange, assignor of one-half to R. B. Wheeler, Detroit, Mich. Device for oiling windmills.....	446,401	Feb. 10	1472	362	54	805
Wright's Denver and San Francisco Electric Light Company. (See Wright, William, assignor.)						
Wrightson, Leonard B. (See Stanley and Wrightson.)						
Wrigley, Arthur, and J. Hope, Liverpool, England. Ship's course-recorder.....	465,308	Dec. 15	2070	{ 529 530 }	57	1547
Wrigley, John, and G. P. Chambers, Paterson, N. J. Thermo circuit-closer for electric fire-alarms.....	463,298	Nov. 17	1714	446	57	900
Wrigley, Thomas, Oak Park, Ill. Device for securing fixtures to walls or ceilings.....	450,127	Apr. 7	707	178	55	138
Writing Telegraph Company. (See Etheridge, Harry, assignor.)						
Wuerpel, Morris, St. Louis, Mo. Connected railway switch and signal.....	450,548	Apr. 14	1358	{ 334 335 }	55	268
Wullschlegel, Samuel, Basle, Switzerland. Striping mechanism for circular-knitting machines.....	463,432	Nov. 17	1933	505	57	941
Wunderlich, Adolph, Cleveland, Ohio. Electric gas-lighter.....	456,684	July 28	2209	586	56	448
Wunderlich, Adolph, Cleveland, Ohio. Automatic electric gas-lighter.....	456,685	July 28	2211	586	56	448
Wurster, Charles F., assignor to J. I. Barnhurst, Philadelphia, Pa. Tempering-machine.....	465,309	Dec. 15	2074	530	57	1548
Wurts, Alexander, assignor to Westinghouse Electric and Manufacturing Company, Pittsburgh, Pa. Lightning-arrester.....	465,958	Dec. 20	3119	799	57	1768
Wurts, Theodore F., Bridgeton, N. J. Means for reclaiming overflowed lands.....	456,749	July 28	2334	615	56	470
Wussow, Friedrich, Leavenworth, Kans. Car-coupling.....	452,000	May 12	865	221	55	750
Wüst-Guyer, Gottfried, Zurich, Switzerland. Machine for making screws, knobs, washers, &c.....	459,558	Sept. 15	1601	{ 401 402 403 }	56	1391
Wüstenhöfer, Franz H. J., Arnsberg, Germany. Machine for making tubes.....	452,909	May 26	2362	{ 597 598 }	55	1047
Wüstenhöfer, Franz H. J., Arnsberg, Germany. Car-buffer.....	452,910	May 26	2365	598	55	1047
Wythrich, Edouard, Vevytau, Switzerland. Chronometer-escapement.....	451,630	May 5	228	70	55	633
Wyatt, Francis, et al. (See Valentin, Basil W., assignor.)						
Wyatt, George, Brooklyn, N. Y. Pliers.....	444,035	Jan. 6	86	22	54	20
Wyatt, George, Brooklyn, N. Y. Centering-tool.....	464,619	Dec. 8	938	231	57	1324
Wyatt, George C., and J. K. Williamson, Rome, Ga. Burial-vault.....	459,985	Sept. 22	2273	571	56	1526
Wyatt, Harry F., New York, N. Y. Mortising-machine.....	447,269	Feb. 24	2922	726	54	1105
Wyatt, Harry F., assignor of one-half to H. S. Brown, New York, N. Y. Clasp for corsets, &c.....	454,104	June 16	1385	362	55	1427
Wyckoff, Seamans & Benedict. (See Heston, David, assignor.)						
Wyeth, Augustus G., et al. (See Wyeth, David G., assignor.)						
Wyeth, Augustus G., and W. M. McCully, Newark, Ohio. Oil-tank wagon.....	458,610	Sept. 1	96	22	56	1085
Wyeth, David G., Newark, Ohio. Buggy-gear.....	461,971	Oct. 27	2328	577	57	468
Wyeth, David G., assignor to A. G. Wyeth and W. M. McCully, Newark, Ohio. Sleigh.....	444,405	Jan. 6	664	173	54	131
Wyeth, William E. (See Button and Wyeth.)						
Wyke, John, Boston, Mass. Key seating or splining gage.....	461,995	Oct. 27	2363	585	57	475
Wyland, William H., assignor of one-half to J. Arnd, Pittsburg, Pa. Fire-escape.....	444,788	Jan. 13	1263	327	54	254
Wylie, David, Detroit, Mich. Draw-bar for passenger-cars.....	444,190	Jan. 6	347	85	54	70
Wylie, Lillie J., Hoboken, N. J. Hanger for pictures, &c.....	452,406	May 19	1567	388	55	888
Wyman, Charles E., Martinsburg, Ind. Well-drilling machine.....	457,552	Aug. 11	1032	266	56	733
Wyman, Horace. (See Crompton and Wyman.)						
Wyman, Horace, Worcester, Mass. Shedding mechanism for looms.....	459,474	Sept. 15	1464	{ 368 369 }	56	1366
Wyman, Horace, assignor to Crompton Loom Works, Worcester, Mass. Loom.....	444,789	Jan. 13	1264	327	54	255
Wyman, Horace, assignor to Crompton Loom Works, Worcester, Mass. Swivel-loom.....	449,790	Apr. 7	228	58	55	46
Wyman, Horace, assignor to Crompton Loom Works, Worcester, Mass. Loom for weaving tufted pile fabrics.....	454,414	June 16	1858	486	55	1518
Wyman, Horace, and J. A. Clark, assignors to Crompton Loom Works, Worcester, Mass. Loom for weaving tufted pile fabrics.....	446,402	Feb. 10	1474	{ 362 363 364 365 366 }	54	805
Wyman, Horace, Worcester, Mass., and F. S. Webb, Bridgeport, Conn., assignors to Crompton Loom Works, Worcester, Mass. Loom for weaving tufted fabrics.....	446,177	Feb. 10	1103	{ 270 271 }	54	731
Wyman, Horace, and A. A. Gordon, assignors to Crompton Loom Works, Worcester, Mass. Friction let-off for looms.....	459,355	Sept. 8	1269	313	56	1320
Wyman, Horace B., Dover, N. H. Coal-mining machine.....	448,829	Mar. 24	2543	638	54	1628
Wyman, Horace B., Byfield, Mass., assignor to Thomson-Van Depoele Electric Mining Company, of Maine. Mining-machine.....	454,895	June 30	2639	677	55	1678

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Wyman, Horace B., Dover, N. H., assignor to Thomson-Van Depoele Electric Mining Company, of Maine. Mining-machine	455,824	July 14	870	228	56	175
Wyman, Jacob O., Fargo, N. D. Grain-meter	453,305	June 2	194	53	55	1184
Wyman, Maud, Oakland, Cal. Slate attachment	450,092	Apr. 7	652	164	55	128
Wynegar, Clyde B., Nineveh, Ind. Portable rail fence	447,223	Feb. 24	2839	704	54	1089
Wynkoop, Jehiel F., Corsica, Pa. Clothes-drier	448,289	Mar. 17	1677	425	54	1456
Wynkoop, Jehiel F., Corsica, Pa. Potato-picker	455,557	July 7	418	111	56	81
Wynkoop, Richard J., and J. M. Kemp, Paterson, N. J. Photographic-printing apparatus	445,581	Feb. 3	93	22	54	530
Wynne, John H., assignor to H. R. Ives, Montreal, Canada. Hot-water boiler	465,420	Dec. 15	2254	578	57	1582
Wythe, William H. (See Wythe, William W. and W. H.)						
Wythe, William H. and W. W., East Orange, N. J. Cash register and indicator	445,582	Feb. 3	96	23, 24	54	530
Wythe, William W. (See Wythe, William H. and W. W.)						
Wythe, William W. and W. H., Orange, N. J. Cash register and indicator	452,043	May 12	948	242	55	764
Wyttenbach, Christian, assignor to G. Scheffer, Zurich, Switzerland. Apparatus for uniting the staves of casks	459,921	Sept. 22	2189	550	56	1510
Yakley, Mortimore, Dexter, Mich. Gate	460,622	Oct. 6	123	32	57	26
Yagn, Nicholas, St. Petersburg, Russia. Rubber tire for vehicles	452,001	May 12	866	291	55	750
Yale, Charles O., New York, N. Y. Safe or vault	465,510	Dec. 22	2408	{ 615 616 }	{ 57 57 }	1621
Yale & Towne Manufacturing Company. (See Berry, Charles A., assignor.)						
Yale & Towne Manufacturing Company. (See McMahon, Patrick, assignor.)						
Yale & Towne Manufacturing Company. (See Stockwell, Emory and H. C., assignors.)						
Yale & Towne Manufacturing Company. (See Taylor, Warren H., assignor.)						
Yale & Towne Manufacturing Company. (See Taylor, Warren H., assignor.) (Reissue.)						
Yancey, Lee, assignor of one-half to A. W. Scranton, Chicago, Ill. Curtain-fixture	465,403	Dec. 15	2232	573	57	1578
Yanda, Raimund, Pittsburg, Pa. Calipers	447,805	Mar. 10	877	218	54	1291
Yandow, William T., Winooski, Vt. Fruit-tree protector	448,738	Mar. 24	2411	603	54	1602
Yankauer, Sidney, New York, N. Y. Scalpel	445,237	Jan. 27	2022	521	54	419
Yann, Martin L., et al. (See Elliott, Hiram N., assignor.)						
Yaryan, Harvey B., assignor of two-thirds to J. R. Bryant and J. Jole, Crawfordsville, Ind. Corn-popper	450,279	Apr. 14	949	236	55	189
Yates, Alexander R., Waterville, assignor to himself, W. A. Yates, Vassalborough, Me., S. D. Shattuck, Malden, and G. A. Drysdale, Chelsea, Mass. Polishing-wheel	463,129	Nov. 10	1451	375	57	842
Yates, Calvin C., Mechanic Falls, Me. Frictional gearing	457,100	Aug. 4	261	67	56	583
Yates, Dent, and B. Brock, Kansas City, Mo.; said Brock assignor to said Yates. System for cooling and distributing drinking-water	460,490	Sept. 29	3043	{ 762 763 }	{ 56 56 }	1680
Yates, John, et al. (See Minich, Daniel, assignor.)						
Yates, John W., Geneva, Nebr. Fence-stay	461,923	Oct. 27	2258	558	57	455
Yates, John W., New Decatur, Ala. Machine for molding and embossing sheet metal	464,410	Dec. 1	625	154	57	1252
Yates, Junius E. M., Grape Vine, Tex. Car-coupling	461,065	Oct. 13	803	205	57	161
Yates, William A., et al. (See Yates, Alexander R., assignor.)						
Yates, William B. (See Hawkins, Huson, and Yates.)						
Yawman, Philip H., Rochester, N. Y. Fishing-reel	454,319	June 16	1704	445	55	1490
Yawman, Philip H., Rochester, N. Y. File-box	458,882	Sept. 1	529	129	56	1166
Yawman, Philip H., Rochester, assignor to Office Specialty Manufacturing Company, of New York. Punch	444,891	Jan. 20	1468	380	54	303
Yeakel, Frederick. (See Gehman and Yeakel.)						
Yeakley, Melvin A., Cleveland, Ohio. Car-brake	456,750	July 28	2335	{ 615 616 }	{ 56 56 }	470
Yeamans, Ira. (See Wright and Yeamans.)						
Yeates, Jessie J., Jr., assignor of one-half to F. Boykin, Jr., Birmingham, Ala. Bale-tie ..	458,137	Aug. 18	1966	510	56	921
Yeates, John F. (See Buckingham and Yeates.)						
Yeaton, Joseph H., assignor of one-half to J. Campbell, Coronado Beach, Cal. Crushing-mill	455,677	July 7	609	160	56	118
Yeiser, Henry C., assignor to Globe Company, Cincinnati, Ohio. Knockdown file-box	456,075	July 14	1226	322	56	241
Yellott, George, Towson, Md. Hydraulic ram	447,550	Mar. 3	464	114	54	1205
Yeo, William B., Manchester, England. Starting-valve for compound engines	449,457	Mar. 31	3572	900	54	1829
Yerby, John T., Centre Hill, Ark. Harrow	462,346	Nov. 3	211	50	57	591
Yerdon, William, Fort Plain, N. Y. Jaw for pipe-holding devices	465,959	Dec. 29	3120	800	57	1768
Yergens, William. (See Ranke and Yergens.)						
Yeakum, Robert, assignor of one-half to A. G. Hall, Dallas, Tex. Fish-harvester	450,306	Apr. 14	989	{ 245 246 }	{ 55 55 }	196
Yoch, Benhard, Belleville, Ill. Machine for pointing cut nails	465,960	Dec. 29	3121	800	57	1768
Yocum, Harry C., and M. V. Kacer, St. Louis, Mo. Packing-case	445,869	Feb. 3	587	144	54	627
Yoder, David Z., Sterling, Ohio. Tongue	465,744	Dec. 22	2776	708	57	1693
Yoder, Uriel, near West Liberty, Ohio. Pump attachment for windmills	447,096	Feb. 24	2598	645	54	1044
Yoe, Henry, Detroit, Mich. Lawn-sprinkler	461,726	Oct. 20	1923	476	57	382
Yoe, Philip, assignor to Dayton Autographic Register Company, Dayton, Ohio. Cash in- dicator, register, and recorder	460,623	Oct. 6	125	{ 32 33 34 35 }	{ 57 57 57 57 }	26
Yont, Charles A., Brock, Nebr. Automatic stock-watering trough	444,911	Jan. 20	1512	389	54	311
York, De Witt C., El Paso, Ill. Animal-stall	457,806	Aug. 18	1438	372	56	821
York, Horace M., assignor of one-half to J. H. Cousens, Kennebunk, Me. Garment-hook ..	455,992	July 14	1108	292	56	219
Yorke, Patrick, Washington, Pa. Rope-clamp	448,902	Mar. 24	2659	668	54	1649
Yorke, Patrick, Washington, Pa. Rope-socket	448,903	Mar. 24	2661	668	54	1650
Yorke, Patrick, Washington, Pa. Making clamps for wire rope	448,904	Mar. 24	2662	668	54	1650
Yorks, Robert M., St. Paul, Minn. Fire-escape	449,458	Mar. 31	3573	900	54	1829
Yost, George W. N., assignor to Yost Writing Machine Company, New York, N. Y. Type- writing machine	447,859	Mar. 10	964	242	54	1307
Yost, George W. N., assignor to Yost Writing Machine Company, New York, N. Y. Type- writing machine	450,805	Apr. 21	1796	436	55	365
Yost, George W. N., assignor to Yost Writing Machine Company, New York, N. Y. Type- writing machine	450,806	Apr. 21	1798	437	55	366
Yost, George W. N., assignor to Yost Writing Machine Company, New York, N. Y. Type- writing machine	452,421	May 19	1582	{ 392 393 }	{ 55 55 }	891
Yost, George W. N., assignor to Davidson Writing Machine Company, New York, N. Y. Type- writing machine	456,350	July 21	1654	{ 437 438 }	{ 56 56 }	333
Yost, George W. N., New York, N. Y., and C. E. Merritt, Springfield, Mass., assignors to Yost Writing Machine Company. Type-writing machine	450,324	Apr. 14	1024	252	55	203
Yost, Joseph L., et al. (See Hansen, Olaus, assignor.)						
Yost, Joseph L., and C. J. Moore, Toledo, assignors, by mesne assignments, to said Yost, and H. A. Loefer, Cleveland, Ohio. Saddle for bicycles	448,469	Mar. 17	1966	424	54	1511
Yost, Peter, Pittston, Pa. Uterine supporter	445,665	Feb. 3	239	65	54	558

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Yost, Peter, Pittston, Pa. Truss.....	445,666	Feb. 3	240	65	54	559
Yost Writing Machine Company. (See Barron, Walter J., assignor.)						
Yost Writing Machine Company. (See Curtis, Henry E., assignor.)						
Yost Writing Machine Company. (See Merritt, Charles E., assignor.)						
Yost Writing Machine Company. (See Merritt, Mortimer G., assignor.)						
Yost Writing Machine Company. (See Steiger, Andrew W., assignor.)						
Yost Writing Machine Company. (See Yost, George W. N., assignor.)						
Yost Writing Machine Company. (See Yost and Merritt, assignors.)						
Young, Alfred K. (See Kierson and Young.)						
Young, Alonzo A., Augusta, Me. Anti-friction block.....	452,154	May 12	1150	291	55	798
Young, Charles. (See Kilborn and Young.)						
Young, Charles F., assignor to G. D. Mosher and S. Novitzky, Birmingham, Conn. Bench-plane.....	455,957	July 14	1060	278	56	210
Young, Charles F., assignor to G. D. Mosher and S. Novitzky, Birmingham, Conn. Plane-bit fastening.....	456,104	July 14	1263	332	56	249
Young, Charles G., New York, N. Y. Electric-arc lamp.....	451,101	Apr. 28	2250	557 558	55	462
Young, Charles G., New York, N. Y. Safety device for dynamos.....	453,281	June 2	157	45	55	1178
Young, Charles G., New York, N. Y. Electric generator.....	461,862	Oct. 27	2147	529	57	434
Young, Charles H., Rockford, Ill. Straight-knitting machine.....	452,559	May 19	1808	455	55	931
Young, Charles W., Syracuse, N. Y. Collapsible center piece.....	463,376	Nov. 17	1846	483	57	925
Young Coloring Company. (See Young, James A., assignor.)						
Young, Cornelius, Selma, Ala. Cotton-gin.....	457,690	Aug. 11	1237	317 318	56	773
Young, Daniel H., Fort Pierre, S. D. Car-coupling.....	448,769	Mar. 24	2457	614	54	1611
Young, Frank E., Canton, Ohio. Hoist.....	447,483	Mar. 3	361	90	54	1186
Young, George W. (See Knowles and Young.)						
Young, George W., Helena, Mont. Railway-rail fastening for metal ties.....	453,099	May 26	2687	677	55	1111
Young, George W., assignor of one-half to G. Knowles, Jr., Milwaukee, Wis. Sprinkler-head.....	452,329	May 12	1437	355	55	853
Young, James A., assignor of one-half to E. B. and A. Seaver, Boston, Mass. Apparatus for dyeing straw goods, &c.....	446,051	Feb. 10	890	216	54	692
Young, James A., Mansfield, assignor, by mesne assignments, to Young Coloring Company, Boston, Mass. Apparatus for dyeing straw goods, &c.....	446,050	Feb. 10	883	215 216	54	692
Young, James A., Somerville, assignor of one-half to C. F. Brown, Reading, Mass. Means for ventilating tunnels.....	462,025	Oct. 27	2407	297	57	484
Young, Jeremiah, Boston, Mass. Switch device for street-cars.....	450,549	Apr. 14	1360	335 336	55	268
Young, John, Pittsburg, Pa. Air-heating furnace.....	445,130	Jan. 20	1846	478	54	376
Young, John, Tiffin, Ohio. Device for fastening hose on the spindles of couplings.....	453,791	June 9	969	252	55	1346
Young, John F. (See Wood and Young.)						
Young, Joseph C., et al. (See Carnahan, Cyrus M., assignor.)						
Young, Joseph H. (See Crawford and Young.)						
Young, Joseph S., et al. (See Carnahan, Cyrus M., assignor.)						
Young, Joseph W., Point Eastern, Va. Car-coupling.....	453,434	June 2	412	107	55	1325
Young, Julius C., and F. C. Maranville, Alexandria, Ohio. Hitching-strap.....	456,210	July 21	1430	379	56	290
Young, Levi H., St. John, Canada. Lock-nut.....	447,224	Feb. 24	2840	704	54	1089
Young, Louis W., New York, and H. E. Parson, Brooklyn, assignors, by mesne assignments, to American Ore Machinery Company, New York, N. Y. Ore-concentrator.....	450,280	Apr. 14	950	236	55	189
Young, Matthew G. (See Nolin and Young.)						
Young, McClintock, Frederick, Md. Brush.....	447,996	Mar. 10	1196	303	54	1352
Young, McClintock, Frederick, Md. Brush.....	449,344	Mar. 31	3370	849	54	1790
Young, McClintock, Frederick, Md. Brush-machine.....	456,610	July 28	2093	553 554	56	424
Young, Moses J., and C. Robinson, assignors of one-half to I. N. Drake, Hartley, Iowa. Hame-tug.....	447,995	Mar. 10	1196	303	54	1352
Young, Nicholas. (See Viles and Young.)						
Young, Robert, Brisbane, Queensland, assignor to J. M. Barbour, Lisburn, Ireland. Net-ting-machine.....	463,115	Nov. 10	1424	367 368	57	837
Young, Robert, Paterson, N. J., assignor to F. Barbour, Lisburn, Ireland. Netting-machine.....	463,116	Nov. 10	1427	369 370	57	837
Young, Robert H., and J. Holyoak, Toronto, Canada; said Holyoak assignor to said Young. Hair-cloth loom.....	460,228	Sept. 29	2646	659	56	1605
Young, Stephen E. (See McCarthy, John I., assignor.)						
Young, Wesley. (See Tiffany, Albert R., assignor.)						
Young, William C., Fort Wayne, Ind. Combination-lock.....	449,924	Apr. 7	418	104	55	82
Young, William F., assignor of one-half to J. T. Solon, Toledo, Ohio. Hair-pin.....	452,055	May 12	974	248	55	768
Youngs, Edward F., West Camp, N. Y. Electrical type-writing machine.....	449,923	Apr. 7	417	104	55	82
Youngs, Jay M., et al. (See Hoskin, John R., assignor.)						
Youtsey, William. (See Cawley, Samuel H., assignor.)						
Yowell, Joel E., et al. (See Brooks, Benjamin F. C., assignor.)						
Yule, George P., assignor of one-half to R. F. Strong, Clinton, Iowa. Ejecting bottle-cap.....	446,314	Feb. 10	1344	327	54	778
Yund, James H., Grand Island, Nebr. Plate, cup, and saucer holder.....	462,347	Nov. 3	2112	50	57	591
Yust, Henry. (See Swallow and Yust.)						
Zabel, Max, Milwaukee, Wis. Handle attachment.....	462,918	Nov. 10	1111	289	57	775
Zacher, Edmund. (See Woodstock, Henry C., assignor.)						
Zagelmeyer, Louis, West Bay City, Mich. Temperature-alarm.....	451,548	May 5	154	38	55	609
Zahn, Frederick H., Michigan City, Ind. Barrel-truck.....	450,430	Sept. 15	1402	350	56	1354
Zallud, Charles, New York, N. Y. Combination-check.....	448,290	Mar. 17	1679	425	54	1456
Zan, Frank, San Francisco, Cal. Crate and display-stand for brooms.....	450,858	Apr. 21	1888	462	55	382
Zan, Frank, San Francisco, Cal. Shield for brooms.....	450,859	Apr. 21	1889	462	55	382
Zander, Carl, Wanzleben, Germany. Bolt.....	465,550	Dec. 22	2481	633	57	1636
Zander, Gustaf, Stockholm, Sweden. Exercising apparatus.....	458,382	Aug. 25	2387	582	56	1006
Zannetti, Fortunato C. (See Delimage, Edgar C., assignor.)						
Zapp, John, New York, N. Y. Attachment for chairs, sofas, &c.....	444,719	Jan. 13	1145	295	54	234
Zattan, Charles. (See Nickel and Zattan.)						
Zeilman, Charles G., Albany, N. Y. Cistern for water-closets.....	444,310	Jan. 6	516	134 135	54	103
Zeiss, Carl. (See Rudolph, Paul, assignor.)						
Zeitler, Johann N., Cannstadt, Germany. Making hard potash soap.....	452,407	May 19	1568		55	888
Zell, Robert R., assignor to Zell Stored Power Company of Baltimore City, Baltimore, Md. Operating motors.....	453,333	June 2	239	64	55	1193

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Zell, Robert R., assignor to Zell Stored Power Company of Baltimore City, Baltimore, Md. Soda-motor	453,334	June 2	242	65	55	1194
Zell, Robert R., assignor to Zell Stored Power Company, Baltimore, Md. Soda-motor	457,831	Aug. 18	1472	{ 383 384	56	827
Zell, Robert R., assignor to Zell Stored Power Company, Baltimore, Md. Operating motors	457,832	Aug. 18	1475	{ 384 385	56	828
Zell Stored Power Company. (See Zell, Robert R., assignor.)						
Zell Stored Power Company of Baltimore City. (See Zell, Robert R., assignor.)						
Zeller, Charles H., Chicago, Ill. Combined window-shutter, storm-window, and screen-frame	461,007	Oct. 13	720	185	57	147
Zellers, Robert E., Philadelphia, Pa., assignor of one-fourth to E. Caspersenn. Apparatus for making dentures	454,415	June 16	1861	{ 486 487	55	1519
Zeltmacher, George E., New York, N. Y. Bodice-belt	462,088	Oct. 27	2493	619	57	500
Zen, Pietro. (See Leonardi, Zen, and Sardi.)						
Zengler, Casper, Canton, Ohio. Hay-rack	455,895	July 14	963	252	56	193
Zenke, Henry C., St. Paul, Minn. Toy bridge	447,422	Mar. 3	243	62	54	1163
Zerbe, Emil P., assignor to Utility Manufacturing Company, Limited, Detroit, Mich. Store-service apparatus	458,029	Aug. 18	1812	472	56	890
Zraggen, Xaver, Martin's Ferry, Ohio. Glassware	446,590	Feb. 17	1774	438	54	877
Zichtl, Anton, and T. C. Brecht, Washington, D. C. Apparatus for marbleizing or ornamenting books, &c.	450,307	Apr. 14	996	246	55	198
Zickhoff, Eduard, Saarbrücken, assignor to P. Mügel, St. Johann, Germany. Pump	450,393	Apr. 14	1137	278	55	224
Ziegler, Carl. (See Fellner and Ziegler.)						
Ziegler, Frank C., assignor to J. McMyler, Cleveland, Ohio. Mousing and safety hook	459,431	Sept. 15	1403	350	56	1355
Ziegler, George H., assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Bearing	447,598	Mar. 3	533	131	54	1217
Ziegler, Jacob O., Boston, Mass. Signal indicating apparatus	454,245	June 16	1591	419	55	1468
Ziegler, John, assignor to Vulcan Iron Works Company, Toledo, Ohio. Excavator and wrecker	465,037	Dec. 15	1624	{ 413 414	57	1464
Ziegler, Leslie J., Cincinnati, Ohio. Flour-bolt	446,503	Feb. 17	1650	403	54	852
Ziegler, Oscar J. (See Gipe, Emanuel C., assignor.)						
Ziegler, Oscar J. (See Stover and Ziegler.)						
Zietlow, John L. W., assignor of one-half to F. A. Burdick, Aberdeen, S. D. Protector for telephones	464,643	Dec. 8	974	{ 242 243	57	1331
Zietz, Otto, Hamburg, Germany. Heel for boots or shoes	460,904	Oct. 6	576	146	57	113
Zilius, Jacob, Huntingdon, Pa. Car-conpling	448,704	Mar. 24	2346	588	54	1591
Zimdars & Hunt. (See Grantland, John W., assignor.)						
Zimer, Frederick W., London, England. Velocipede	445,018	Feb. 3	156	41	54	541
Zimmer, Henry, assignor of one-half to M. David, Rochester, N. Y. Trunk	461,145	Oct. 13	910	236	57	182
Zimmerling, Charles, Philadelphia, Pa. Game-counter	446,701	Feb. 17	1944	485	54	909
Zimmerman, Arnold W., Washington Heights, Ill. Door-bolt	444,869	Jan. 20	1434	373	54	296
Zimmerman, Arnold W., Washington Heights, Ill., assignor of one-half to F. W. Bird & Son, Walpole, Mass. Car-roofing	446,244	Feb. 10	1234	301	54	756
Zimmerman, Arnold W., Washington Heights, assignor of one-half to Car Truck Supply Company, Chicago, Ill. Anti-friction bolster-bearing for car-bodies	460,170	Sept. 29	2565	{ 639 640	56	1589
Zimmerman, Arthur A., New York, N. Y. Cabinet folding bed	458,089	Aug. 18	1897	{ 493 494	56	909
Zimmerman, Cyrus W. (See Mills and Zimmerman.)						
Zimmerman, Frederick D., and F. Beall, Minneapolis, Minn., assignors of one-third to H. Crea, Decatur, Ill. Steamer or heater for tempering wheat or other grain	460,624	Oct. 6	148	36	57	31
Zimmerman, George F. S., Frederick, Md. Corn-harvester	459,517	Sept. 15	1533	383	56	1379
Zimmerman, Henry M. (See Warfel, George M., assignor.)						
Zimmerman, Joseph W., Beaumont, Tex. Mill-carriage-wheel guard	451,165	Apr. 28	2357	586	55	483
Zimmerman, Peter, Jr., New York, N. Y. Nursing-bottle holder	458,933	Sept. 1	605	149	56	1182
Zimmerman, Thomas W., and G. Ingram, Cincinnati, Ohio. Apparatus for cooling wine, &c.	459,327	Sept. 8	1216	297	56	1310
Zimmermann, Julius H. (See Gumbel, Carl, assignor.)						
Zimmermann, Robert E., Beaver Falls, Pa. Carpet-beater	458,090	Aug. 18	1899	494	56	909
Zingsem, Frederick W., New York, N. Y. Apparatus for electroplating small articles	449,890	Apr. 7	366	93	55	72
Zinn, Johan A., Altoona, Pa. Hydraulic switch and signal apparatus	449,240	Mar. 31	3174	801	54	1577
Zinn, Simon. (See Scheuber, August W., assignor.)						
Zinns, Jennie A. (See Asmus, Edward G., assignor.)						
Zipernowsky, Charles, Buda-Pesth, Austria-Hungary. Rolling-stock for tramways or railways	445,583	Feb. 3	103	24, 25	54	531
Zipernowsky, Charles, Buda-Pesth, Austria-Hungary. Apparatus for heating by electricity	452,056	May 12	975	248	55	769
Zipf, George H., St. Joseph, Mo. Tea-kettle	453,686	June 9	803	205	55	1308
Ziv, Jonas, assignor, by mesne assignments, to N. Davis, Chicago, Ill. Scrubbing-machine	454,633	June 23	2217	571	55	1591
Zoeggele, Anton L., and T. H. Murphy; said Zoeggele assignor to P. M. Zoeggele, New Bedford, Mass. Baking-pan	463,590	Nov. 17	2182	576	57	990
Zoeggele, Phillip M. (See Zoeggele and Murphy, assignors.)						
Zoeller, William, Chicago, Ill. Molding-machine	445,215	Jan. 27	1991	{ 513 514	54	413
Zoelly, Heinrich, Zurich, Switzerland. Turbine water-wheel	452,590	May 19	1855	{ 466 467	55	940
Zoller, Charles F., and L. S. Burrows, Foreston, Ill. Vehicle-top	447,097	Feb. 24	2599	645	54	1044
Zook, Jacob B., Xenia, Ind. Roof-paint	447,997	Mar. 10	1197	.....	54	1352
Zorge, Robert J., et al. (See Holson, Albert B., assignor.)						
Zoutman, Albertus. (See Jager and Zoutman.)						
Zschau, Alvin E. (See See, James W., assignor.)						
Zuberbühler, Johann R., Greenville, S. C. Wind-toy	463,568	Nov. 17	2142	566	57	983
Zucker & Levett Chemical Company. (See Mayer, Max, assignor.)						
Zuckriegel, Peter, Tell City, Ind. Knockdown booth	453,528	June 2	548	140	55	1251
Zuckweiler, Henry, Pekin, Ill. Trolling-book	463,240	Nov. 17	1622	423	57	883
Zumbro, William L., Laud, Ind. Band-saw guide	452,408	May 19	1568	389	55	888
Zündorf, Heinrich, Barmen, Germany. Button-machine	448,569	Mar. 17	2113	{ 529 530	54	1539
Zwick, Joseph, New York, N. Y. Safety-pocket for watches	463,882	Nov. 24	2654	692	57	1087
Zwierchowski, Alexandre S. (See Worms and Zwierchowski.)						
Zwienusch, Otto, Milwaukee, Wis. Finishing beer	447,484	Mar. 3	361	90	54	1186
Zwilling, Leopold, Vienna, Austria-Hungary. Process of and apparatus for making charcoal	466,265	Dec. 29	3621	927	57	1865

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

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Abell, John C., Lebanon, Ky. Mantel	21,162	Nov. 10	57	698
Adams, George E., Providence, R. I. Buckle-plate	21,233	Dec. 15	57	1432
Adams, George E., Providence, R. I. Buckle-plate	21,241	Dec. 15	57	1432
Adams, Peter. (See Shepard and Adams.)				
Adams, Samuel T., assignor to Pairpoint Manufacturing Company, New Bedford, Mass. Spoon	{ 21,106 } 21,107	Oct. 13	57	128
Adams, Thomas G., New Haven, Conn. Match-safe	20,952	July 21	56	266
Addison, Charles J. W., Chelsea, Mass. Spoon	20,689	Apr. 22	55	435
Adler, Julius, Jersey City, N. J. Hat or cap	21,178	Nov. 17	57	850
Alex. Smith & Sons Carpet Company. (See Doherty, Robert F., assignor.)				
Alex. Smith & Sons Carpet Company. (See Donzel, Joseph, assignor.)				
Alex. Smith & Sons Carpet Company. (See Moffat, John B., assignor.)				
Alex. Smith & Sons Carpet Company. (See Parton, Henry W., assignor.)				
Alex. Smith & Sons Carpet Company. (See Pignot, Paul, assignor.)				
Alex. Smith & Sons Carpet Company. (See Stengel, George J., assignor.)				
Alex. Smith & Sons Carpet Company. (See Thomas, Walter, assignor.)				
Allen & Co., James. (See Dominick, Henry B., assignor.)				
Allen, Walter H., Seneca Falls, N. Y. Paper-weight	20,716	May 12	55	711
Alles, John, and W. N. Fisher, Boston, Mass. Wagon-body	20,999	Aug. 18	57	807
Amselem, Santos, New York, N. Y. Fancy toy ball	21,060	Sept. 22	56	1452
Anderson, Lelia Z., Philadelphia, Pa. Match-safe	20,526	Feb. 24	54	963
Anderson, William C., Toledo, Ohio. Ornamentation of glassware	20,921	July 7	56	2
Anderton, Eberhardt & Co. (See Eberhardt, John C., assignor.)				
Auld, Demas L., Columbus, Ohio. Badge	20,528	Feb. 24	54	963
Babbitt, Seth W., Meriden, Conn. Candlestick	21,138	Oct. 27	57	416
Bahcock, Alfred P., Brooklyn, N. Y. Perfumery-bottle	20,993	Aug. 18	56	807
Bahcock, George H., Plainfield, N. J. Roofing-tile	20,635	Mar. 24	54	1566
Back, Albert, New York, N. Y., assignor to W. H. Holeywell. Ruffle or ruching	21,049	Sept. 22	56	1452
Bailey, Banks & Biddle. (See Michael, William F., assignor.)				
Balch, George H., assignor to Towle Manufacturing Company, Newburyport, Mass. Spoon, &c.	{ 20,743 } 20,744	May 19	55	870
Ball, Webb C., Cleveland, Ohio. Spoon, &c.	20,845	June 23	55	1534
Balsley, Theodore S., Detroit, Mich. Flower-pot	20,523	Feb. 17	54	821
Banning, Walter E., Syracuse, N. Y. Handle and base for rubber stamps	21,091	Oct. 6	57	2
Bark, Birger, Chicago, Ill., assignor to S. S. Jewett & Co., Buffalo, N. Y. Cooking stove or range	21,220	Dec. 8	57	1284
Barnes & Beyer. (See Hartley, Riley, assignor.)				
Barnhart Brothers & Spindler. (See Hazlett and West, assignors.)				
Barnhart Brothers & Spindler. (See Heyer, Charles E., assignor.)				
Barnhart Brothers & Spindler. (See Schmolh and Lauschke.)				
Barnhart Brothers & Spindler. (See Schroeder, Gustave, assignor.)				
Barnhart Brothers & Spindler. (See West, John, assignor.)				
Bascom, Henry C., Lansingburg, N. Y. Cooking-stove	20,464	Jan. 6	54	2
Bascom, Henry C., Lansingburg, N. Y. Heating-stove	20,465	Jan. 6	54	2
Bates, William A., Winchester, Mass. Handle for spoons, &c.	20,576	Mar. 10	54	1270
Baumgras, Erwin C., Washington, D. C. Spoon	20,665	Apr. 7	55	3
Baumgras, Erwin C., assignor to Jacobs Brothers, Washington, D. C. Spoon	20,655	Mar. 31	54	1717
Bayle, George A., St. Louis, Mo. Cracker or pretzel	{ 21,084 } to 21,087	Sept. 29	56	1568
Beach, Edward B., Newark, N. J. Finger-ring	{ 20,735 } to 20,742	May 19	55	870
Beach, Edward P., Newark, N. J. Finger-ring	20,772	May 26	55	1002
Beach, Edward P., assignor to Unger Brothers, Newark, N. J. Scarf-pin	20,508	Feb. 10	54	666
Beach, Edward P., assignor to Unger Brothers, Newark, N. J. Brooch or similar article	20,518	Feb. 10	54	666
Beall, John N., Greenfield, Ill. Culinary box	21,070	Sept. 29	56	1568
Beekman, John C., New York, N. Y. Water-closet bowl	20,869	June 30	55	1656
Beeler, Charles H., Jr., assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type	20,563	Mar. 3	54	1117
Beeler, Charles H., Jr., assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type	20,700	Apr. 28	55	435
Beeler, Charles H., assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type	21,141	Nov. 3	57	550
Beesley, James, and A. B. Benjamin, assignors to Clark Electric Company, New York, N. Y. Electric-arc lamp	20,489	Jan. 20	54	269
Beiderhase, George B. (See Fuchs, Rudolph, assignor.)				
Benjamin, Arthur B. (See Beesley and Benjamin.)				
Bennett, Ernest H., East Orange, N. J., assignor to J. Bromley & Sons. Rug	20,976	Aug. 11	56	665
Bennett, Ernest H., East Orange, N. J., assignor to J. Bromley & Sons. Rug	{ 21,004 } 21,005	Aug. 18	56	807
Bennett, Ernest H., East Orange, N. J., assignor to J. Bromley & Sons. Rug	21,011	Aug. 25	56	932
Bennett, Ernest H., East Orange, N. J., assignor to J. Bromley & Sons. Rug	21,019	Sept. 1	56	1064
Berg, Ole. (See Johnson, Hans T., assignor.)				
Bergen, James D., Meriden, Conn. Ornamentation of glassware	21,050	Sept. 22	56	1452
Bernstein, Adolph, New York, N. Y. Suspender-clasp	20,439	Jan. 6	54	2
Bigelow Carpet Company. (See Brown, William F., assignor.)				
Bigelow Carpet Company. (See Chambellan, Pierre C., assignor.)				
Bigelow, John, New York, N. Y. Apparel-belt	20,640	Mar. 31	54	1716
Bigelow, William B., New York, N. Y., assignor to Wm. Knabe & Co. Manufacturing Company, Baltimore, Md. Grand-piano leg	{ 21,247 } 21,248	Dec. 22	57	1599
Bigelow, William B., New York, N. Y., assignor to Wm. Knabe & Co. Manufacturing Company, Baltimore, Md. Console	{ 21,249 } 21,250	Dec. 22	57	1599

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Bignell, George, Cheyenne, Wyo. Badge.....	21,251	Dec. 22	57	1600
Billard, John, assignor to T. B. Clark & Co., Honesdale, Pa. Ornamentation of glassware.....	20,570	Mar. 10	54	1270
Bingham & Walk. (See Walk, Julius C., assignor.)				
Birely, Harry R., Oshkosh, Wis. Spoon.....	21,153	Nov. 3	57	550
Birge & Sons, M. H. (See Booze, Charles, assignor.)				
Bischoff, Frederick F., Chicago, Ill. Panel for ceilings, &c.....	20,502	Feb. 3	54	510
Bischoff, Henry W., Chappaqua, N. Y. Clock-case.....	21,182	Nov. 24	57	1006
Blair, George W., Pittsburg, Pa. Lamp-chimney.....	{ 20,679 } 20,680	Apr. 21	55	291
Bliss Company, E. A. (See Bliss, Egerton A., assignor.)				
Bliss, Egerton A., assignor to E. A. Bliss Company, New York, N. Y. Match-safe.....	20,586	Mar. 17	54	1422
Block, Israel. (See Goldstein and Block.)				
Boatner, James L., assignor to himself and R. Whitaker, Whitaker, Miss. Cutter.....	21,007	Aug. 25	56	932
Böhm, Ernst, and W. H. Power, London, England. Globe.....	20,894	June 30	55	1656
Booze, Charles, assignor to M. H. Birge & Sons, Buffalo, N. Y. Wall-paper.....	21,032	Sept. 15	56	1339
Bowen, M. G., <i>et al.</i> (See Hallock, Howard B., assignor.)				
Brabant, Alfred. (See Brabant, Augustus F. and A.)				
Brabant, Augustus F. and A., New York, N. Y. Toilet-case.....	21,300	Dec. 1	57	1136
Bradley & Hubbard Manufacturing Company. (See Patitz, Albert, assignor.)				
Brahadi, Abraham, Montreal, Canada. Headwear.....	20,441	Jan. 6	54	2
Bratton, William L., Flatbush, N. Y. Curtain, &c.....	20,912	July 7	56	1
Braun, Cornelius, assignor to Scanlan & Co., Louisville, Ky. Fire-place frame and front.....	21,108	Oct. 13	57	128
Brayer, John F., and E. J. King, assignors to Co-Operative Foundry Company, Rochester, N. Y. Stove-shelf and support.....	20,459	Jan. 6	54	2
Brayer, John F., and E. J. King, assignors to Co-Operative Foundry Company, Rochester, N. Y. Range back and shelf.....	20,482	Jan. 13	54	142
Brehmer, Henry, assignor to B. Dauchy, New York, N. Y. Font of printing-type.....	20,690	Apr. 28	55	435
Bremer, Max, assignor to Pairpoint Manufacturing Company, New Bedford, Mass. Handle socket and plate.....	20,475	Jan. 13	54	142
Bremer, Max, assignor to Pairpoint Manufacturing Company, New Bedford, Mass. Casket-handle ear.....	20,714	May 12	55	719
Brewster & Company. (See Stahmer, Herman F., assignor.)				
Brooks, William H., Philadelphia, Pa. Badge.....	20,440	Jan. 6	54	2
Brown, William F., Newark, N. J., assignor to Bigelow Carpet Company, Clinton, Mass. Carpet.....	21,088	Sept. 29	56	1568
Brunner, William N., Philadelphia, Pa. Clock-face.....	20,817	June 9	55	1280
Brunst, Henry, Baltimore, Md. Covered dish.....	21,128	Oct. 27	57	416
Buck, George L., Stewartsville, Mo. Hip-terret.....	20,479	Jan. 13	54	142
Bullard, John H. and W. H., St. Paul, Minn. Spoon, &c.....	20,841	June 16	55	1403
Bullard, William H. (See Bullard, John H. and W. H.)				
Bunker, Caroline, Providence, R. I. Spoon.....	21,240	Dec. 15	57	1432
Burch, Charles E., Cooperstown, N. Y. Spoon, &c.....	20,793	June 2	55	1146
Burtch, Horatio W., Chicago, Ill. Wrapping-paper, &c.....	20,654	Mar. 31	54	1717
Burlingame, William, Exeter, N. H. Radiator.....	21,234	Dec. 15	57	1432
Cahill Iron Works. (See Peterson, Charles F., assignor.)				
Caldwell & Co., J. E. (See Hetzel, Margaret, assignor.)				
Caldwell & Co., J. E. (See Houston, Hugh B., assignor.)				
Caldwell & Co., J. E. (See Van Roden, George C., assignor.)				
Caldwell & Co., James E. (See Thomas, James F., assignor.)				
Caldwell, Frank G., Wheeling, W. Va. Ceiling-panel.....	20,933	July 14	56	146
Cameron, Allan B., Williamsport, Pa. Panel.....	{ 20,445 } 20,446	Jan. 6	54	2
Camp, Arthur K., Milwaukee, Wis. Spoon, &c.....	20,913	July 7	56	1
Camp, Arthur K., Milwaukee, Wis. Spoon.....	20,989	Aug. 11	56	666
Canners' Supply Company. (See Van Kannel, Theophilus, assignor.)				
Carranza, Manuel, Havana, Cuba. Spoon.....	{ 21,256 } 21,258	Dec. 22	57	1600
Chambellan, Pierre C., West Hoboken, N. J., assignor to Bigelow Carpet Company, Clinton, Mass. Carpet.....	21,089	Sept. 29	56	1568
Chisholm, Charles W., Winnipeg, Canada. Washer.....	21,194	Dec. 1	57	1135
Christesen, Rodolphe W. E., assignor to Russell & Irwin Manufacturing Company, New Britain, Conn. Ornamentation of builders' hardware.....	20,895	June 30	55	1656
Clark & Co., T. B. (See Billard, John, assignor.)				
Clark Electric Company. (See Beesley and Benjamin, assignors.)				
Clulue, Harry I., assignor to R. Wallace & Sons Manufacturing Company, Wallingford, Conn. Spoon.....	20,994	Aug. 18	56	807
Cohen, Henry J., Cleveland, Ohio. Sink-board.....	20,922	July 7	56	2
Coburn, Gilman R., Chelsea, Mass. Heel-mold.....	20,786	June 2	55	1146
Coffeen, Henry, <i>et al.</i> , trustees. (See Haworth, Ezekiel H., assignor.)				
Cofman, Judson G., Prairie, Wash. Brush-hook.....	20,684	Apr. 21	55	291
Cohen, Solomon L., assignor to New York Consolidated Card Company, New York, N. Y. Backs for playing-cards.....	20,717	May 12	55	719
Coleman, Horace, Jr., Ellsworth, Kans. Bottle.....	20,629	Mar. 24	54	1566
Colestock, Daniel. (See Joy, Thaddeus C., assignor.)				
Colestock, Daniel, Titusville, Pa. Radiator.....	{ 20,443 } 20,444	Jan. 6	54	2
Collins, Timothy J., assignor of one-half to Ransom & Randolph, Toledo, Ohio. Barber's chair.....	20,535	Mar. 3	54	1117
Collins, Timothy J., assignor to Ransom & Randolph, Toledo, Ohio. Dental cabinet.....	20,643	Mar. 31	54	1716
Collins, Timothy J., assignor to J. R. B. Ransom and T. F. Randolph, Toledo, Ohio. Dental cabinet.....	20,582	Mar. 17	54	1422
Colonial Dames of America. (See Whitehouse, James H., assignor.)				
Cooke, Daniel, Camden, N. J. Toy money-bank.....	20,794	June 2	55	1146
Cooper, William S., Philadelphia, Pa. Water-closet bowl.....	20,520	Feb. 17	54	821
Co-Operative Foundry Company. (See Brayer and King, assignors.)				
Co-Operative Foundry Company. (See Wilkinson, William H., assignor.)				
Coops, Charles, assignor to C. Macintosh & Company, Limited, Manchester, England. India-rubber tire.....	20,678	Apr. 14	55	144
Copp, John L., Rochester, N. H. Bank-check.....	20,488	Jan. 20	54	269
Cribbins, Henry, Sault de Ste. Marie, Mich. Broom-holder.....	20,827	June 9	55	1280
Crider, Emmet F., Columbus Grove, Ohio. Buckle.....	20,261	June 23	55	1534
Crowell, Gilbert L., Jr., Arlington, N. J., assignor to Dominick & Haff, New York, N. Y. Calendar-stand.....	20,442	Jan. 6	54	2
Crowell, Gilbert L., Jr., Arlington, N. J., assignor to Dominick & Haff, New York, N. Y. Sugar-bowl, &c.....	20,667	Apr. 7	55	3

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Crowell, Gilbert L., Jr., Arlington, N. J., assignor to Dominick & Haff, New York, N. Y. Spoon	20,773	May 26	55	1002
Crowell, Gilbert L., Jr., Arlington, N. J., assignor to Dominick & Haff, New York, N. Y. Spoon, &c.	20,842	June 16	55	1403
Crowell, Gilbert L., Jr., Arlington, N. J., assignor to C. R. Smith & Son, Philadelphia, Pa. Spoon	20,844	June 23	55	1534
Crowell, Gilbert L., Jr., Arlington, N. J., assignor to Domiuck & Haff, New York, N. Y. Spoon	21,265	Dec. 29	57	1725
Daily, Edmond F., Anderson, Ind. Rein-holder	20,447	Jan. 6	54	2
Dauchy, Burr. (See Brehmer, Henry, assignor.)				
Davis & Galt. (See Galt, Charles E., assignor.)				
Davis, Nannie G., Washington, D. C. Spoon	20,828	June 9	55	1280
Dawes, John L., Pittsburg, Pa. Bottle	20,656	Mar. 31	54	1717
Dawley, James A., Denver, Colo. Pin or badge	{ 21,223 } 21,224	Dec. 8	57	1284
Day, Mary J., Newburg, N. Y. Pressing-board	20,694	Apr. 28	55	435
Dean, Jesse, Trenton, N. J., assignor to Maddock & Steel, New York, N. Y. Covered dish	20,815	June 2	55	1146
Dempsey, Alice J., Washington, D. C. Spoon	20,666	Apr. 7	55	3
Dempsey, Alice J., Washington, D. C. Spoon	{ 21,221 } 21,222	Dec. 8	57	1284
Denison, Edwin N., Westerly, R. I. Spoon, &c.	20,915	July 7	56	1
Dennis, Henry H., Chicago, Ill. Box for washing-machines	20,536	Mar. 3	54	1117
Dickerson, Thompson G. (See Smith, Lewis C., assignor.)				
Didero, Joseph M., Lorain, Ohio. Ax-blade	20,814	June 2	55	1146
Dimmick, George W., assignor to J. H. Hart, Limited, Brooklyn, N. Y. Spoon	20,701	Apr. 28	55	435
Dimmick, George W., assignor to J. H. Hart, Limited, Brooklyn, N. Y. Spoon, &c.	20,801	June 2	55	1146
Disque, George A. (See Jarecki and Disque.)				
Dodge, Frederick P., New York, N. Y. Stage-setting	20,930	July 14	56	146
Doherty, Robert F., assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	20,592	Mar. 24	54	1565
Doherty, Robert F., assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	{ 20,751 } 20,752	May 19	55	870
Dole, Henry L., Haverhill, Mass. Handle for spoons, &c.	20,543	Mar. 3	54	1117
Dominick & Haff. (See Crowell, Gilbert L., Jr., assignor.)				
Domiuck, Henry B., New York, N. Y., assignor to J. Allen & Co., Charleston, S. C. Spoon	20,862	June 30	55	1656
Dominion Tubular Lamp Company. (See Steber, Bernard T., assignor.)				
Donzel, Joseph, assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	20,753	May 19	55	870
Dorsey, Clement, Coshocton, Ohio. Fly-paper sheet	20,691	Apr. 28	55	435
Dorwin, Thomas, Chicago, Ill. Medallion or medal	21,185	Dec. 1	57	1135
Doty, John A., Oakville, Canada. Fruit-basket	20,641	Mar. 31	54	1716
Dueber, John C., Newport, Ky. Watch-case	20,476	Jan. 13	54	142
Duncan, Andrew J., Youngstown, Ohio. Casing for oil-cans	20,639	Mar. 24	54	1566
Dunlap & Sons, John. (See Lawton, Thomas L., assignor.)				
Durgin, William B., Concord, N. H. Spoon, &c.	20,541	Mar. 3	54	1117
Durgin, William B., Concord, N. H. Handle for spoons, &c.	20,542	Mar. 3	54	1117
Durgin, William B., Concord, N. H. Handle for spoons, &c.	20,591	Mar. 24	54	1565
Durgin, William B., Concord, N. H. Handle for spoons, forks, &c.	26,644	Mar. 31	54	1716
Durgin, William B., Concord, N. H. Handle for spoons, &c.	{ 20,673 } 20,674	Apr. 14	55	144
Durgin, William B., Concord, N. H. Spoon	{ 20,683 } 20,686	Apr. 21	55	291
Eaton, Joshua P., Woburn, Mass. Shoe-pattern	20,953	July 21	56	266
Eaton, Joshua P., Woburn, Mass. Crimping-form	21,163	Nov. 10	57	698
Eberhardt, John C., assignor to Anderson, Eberhardt & Co., Dayton, Ohio. Spoon	20,907	July 7	56	1
Eden Manufacturing Company. (See Markgraf, Adam, assignor.)				
Eitel, Emil, Chicago, Ill. Observatory	20,329	Feb. 24	54	963
Elbel & Co. (See Harriss, James W., assignor.)				
Electric Cutlery Company. (See Fuller, Louis C., assignor.)				
Electric Cutlery Company. (See Lefferts, Marshall C., assignor.)				
Ellich, Robert C., Southington, Conn. Bar or stock of wrenches	20,448	Jan. 6	54	2
Enger, George, and A. Kress, Milwaukee, Wis. Purse-frame	20,995	Aug. 18	56	807
Engstfeld, Ernst, assignor to A. A. Lazarus, I. A. Schwarz, and B. Lipper, Philadelphia, Pa. Dress-trimming	21,033	Sept. 15	56	1339
Epple, Albert, Providence, R. I. Lace-pin	20,587	Mar. 17	54	1422
Estes, Webster C., Flatbush, N. Y. Box	20,519	Feb. 10	54	666
Estes, Webster C., Flatbush, N. Y. Wooden box	20,669	Apr. 14	55	144
Etienne, Diwitz, New York, N. Y. Bottle	20,962	July 28	56	401
Ette & Henger Manufacturing Company. (See Sanders, Barney H., assignor.)				
Everett, Edgar L., Troy, N. Y. Spoon	21,034	Sept. 15	56	1340
Faber, Eberhard. (See Mnssinan, Oscar, Jr., assignor.)				
Faber, Eberhard, West New Brighton, N. Y. Rubber ring	20,696	Apr. 28	55	435
Falkenthal, Adolphus W. (See Shannon, James F., assignor.)				
Finck, William C., Elizabeth, N. J. Lace-pin	20,837	June 16	55	1403
Finkelstein, Shye, New York, N. Y. Ornamentation of neckscarf	20,642	Mar. 31	54	1716
Finn, George M., Syracuse, N. Y. Cake of soap	20,775	May 26	55	1002
Firm of Ledig & Way. (See Ledig, Charles W., assignor.)				
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	{ 20,802 } 20,803	June 2	55	1146
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	{ 20,934 } to 20,939	July 14	56	146
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	21,029	Sept. 1	56	1064
Fisher, Elliot D., Franklinville, N. Y. Campaign-badge	21,172	Nov. 17	57	850
Fisher, Elliot D., Franklinville, N. Y. Badge	21,242	Dec. 15	57	1432
Fisher, William N. (See Alles and Fisher.)				
Fitch, W. & E. T. (See Hubbard, George M., assignor.)				
Flather, Joseph, Nashua, N. H. Box-leg for latbes	21,126	Oct. 20	57	278
Fletcher, John R., Dayton, Ohio. Pole for electric wires	20,449	Jan. 6	54	2
Foley, David T., Chicago, Ill. Spoon	21,266	Dec. 29	57	1725
Folsom, James L., Brooklyn, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet	20,593	Mar. 24	54	1565
Fostoria Shade and Lamp Company. (See Kopp, Nicholas, assignor.)				
Fox, Emil, assignor to W. Mannheim & Co., New York, N. Y. Box-loop for harness	{ 20,718 } to 20,720	May 12	55	719
Frاند, Martin J., Camden, N. J. Roof-peak	20,695	Apr. 28	55	435
Freeman, Benjamin B., Cambridge, Mass. Spoon	20,774	May 26	55	1002

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Name, residence, and design.	No.	Date.	Official Gazette.	
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French, Ferdinand F. (See Tucker, Frank W., assignor.)				
Fricke, George F., Chicago, Ill. Wood carpet	20,996	Aug. 18	56	807
Frisbie, Russel, assignor to J. & E. Stevens Company, Cromwell, Conn. Toy bank	20,579	Mar. 10	54	1270
Frisbie, Russel, assignor to J. & E. Stevens Company, Cromwell, Conn. Toy bank	20,646	Mar. 31	54	1716
Fuchs, Gustav, Chicago, Ill. Box	20,954	July 21	56	266
Fuchs, Rudolph, Staten Island, N. Y., and G. B. Beiderhase, Jersey City, N. J. Brush or mirror back	21,071	Sept. 29	56	1568
Fuller, Louis C., New York, N. Y., assignor to Electric Cutlery Company, Newark, N. J. Razor-handle	21,012	Aug. 25	56	932
Galt, Charles E., assignor to Davis & Galt, Philadelphia, Pa. Handle for forks, spoons, or similar ware	20,545	Mar. 3	54	1117
Garfield, Ellery I., Lexington, Mass. Spoon, &c.	20,846	June 23	55	1534
Garfield, Ellery I., Lexington, Mass. Spoon	20,896	June 30	55	1656
Gérard, Emile, Limoges, France. Dish	20,521	Feb. 17	54	821
Germain, Edward, Saginaw, Mich. Mantel	{ 21,155 to 21,160 }	Nov. 10	57	698
Giannini, Orlando, Austin, assignor to United States Automatic Perfumery Company, Chicago, Ill. Standard for perfumery-vending apparatus	20,721	May 12	55	719
Gilbreth, Mary E., Boston, Mass. Spoon	21,225	Dec. 8	57	1284
Glahn, George A., and G. W. Hull, Wallingford, Conn, assignors to Whiting Manufacturing Company, New York, N. Y. Spoon or fork	21,169	Nov. 10	57	698
Goertz, August, Newark, N. J. Purse-frame	21,164	Nov. 10	57	698
Goetheim, Charles F., Cincinnati, Ohio. Spoon	21,142	Nov. 3	57	550
Goldsmith, Charles A., Washington, D. C. Spoon	21,072	Sept. 29	56	1568
Goldstein, Jacob, and I. Block, New York, N. Y. Oil or gas stove	20,503	Feb. 3	54	510
Goode, George B., Washington, D. C., assignor to National Society, Daughters of the American Revolution. Badge	21,053	Sept. 22	56	1452
Gooding, Benjamin W. (See Gooding, George and B. W.)				
Gooding, George and B. W., Plymouth, Mass. Handle for spoons, &c.	20,664	Apr. 7	55	3
Goodwin, Adolphus D., Salem, Va. Window-lock	20,955	July 21	56	266
Goodwin & Sen, C. F. (See Ryan, John M.)				
Gorham Manufacturing Company. (See Wilkinson, George, assignor.)				
Graves Company, Robert. (See Roos, Christian P., assignor.)				
Greenwood, Charles F. and F., Norfolk, Va. Spoon	20,916	July 7	56	1
Greenwood, Frederick. (See Greenwood, Charles F. and F.)				
Griffin, Henry A., Brooklyn, N. Y. Carpet	20,829	June 9	55	1280
Griffing Iron Company, A. A. (See Williams, Thomas H., assignor.)				
Griswold, George P., New Orleans, La. Spoon	21,051	Sept. 22	56	1452
Grout, Louis S., Chicago, Ill. Watch-maker's sign	20,460	Jan. 6	54	2
Groves, Robert S., Philadelphia, assignor to Lukens Iron and Steel Company, Coatesville, Pa. Paper-weight	21,201	Dec. 1	57	1136
Hackman, Charles F., Staunton, Ill. Carpet-stretcher	20,850	June 23	55	1534
Hall, Zachary T., Philadelphia, Pa. Reflector or shade	20,724	May 19	55	870
Hallanan, Michael, New York, N. Y. Horseshoe-pad	20,849	June 23	55	1534
Hallett, Emma V., Hartford, Conn. Spoon, &c.	20,687	Apr. 21	55	291
Hallock, Howard B., assignor to M. G. Bowen and R. N. Kirk, Chicago, Ill. Family-altar	20,522	Feb. 17	54	821
Hammond, John, San Francisco, Cal. Railway-car body	21,042	Sept. 15	56	1340
Harder, Charles N. (See Sagendorph, Longley L., assignor.)				
Hardie, Robert W., Albany, N. Y. Brush	21,179	Nov. 24	57	1006
Harr, Deck D., Belmond, Iowa. Bottle	20,568	Mar. 17	54	1422
Harrington, Ephraim, Boston, Mass. Button	20,517	Feb. 10	54	666
Harrington, Loamm. (See Shickluna, George, assignor.)				
Harris, Charles R., Williamsport, Pa. Suspender-buckle	20,544	Mar. 3	54	1117
Harris, Daniel, assignor to Salisbury Tobacco Company, Salisbury, Mo. Tobacco-plug	21,097	Oct. 6	57	2
Harris, Edwin, Washington, D. C. Spoon, &c.	{ 20,657 to 20,658 }	Mar. 31	54	1717
Harris, Elijah T., Chicago, Ill. Grate-front	20,821	June 9	55	1280
Harris, Hiram W., New York, N. Y. Game-counter	20,713	May 12	55	719
Harris, Renben, Washington, D. C. Handle for spoons, &c.	20,675	Apr. 14	55	144
Harriss, James W., assignor to Elbel & Co., Canton, Ohio. Buckle	21,037	Sept. 15	56	1340
Hart, James H. (See Dimmick, George W., assignor.)				
Hart, James H. (See Dimmick, George W., assignor.)				
Hartford Carpet Company. (See Folsom, James L., assignor.)				
Hartley, Riley, assignor to Barnes & Beyer, Philadelphia, Pa. Curtain	{ 20,963 to 20,966 }	July 28	56	401
Harwood, Herbert J., Littleton, Mass. Chair-back	20,818	June 9	55	1280
Hatch, Dillon F., R. H. Jenks, and J. J. Wemple, Cleveland, Ohio. Door	21,073	Sept. 29	56	1568
Hathaway, Edgar F., Hornellsville, N. Y. Fence-strand	{ 20,512 to 20,513 }	Feb. 10	54	666
Hathaway, Keyes A., Rockford, Ill. Handle for knives, &c.	20,647	Mar. 31	54	1716
Hatt, Samuel. (See Kleberg and Hatt.)				
Haviland, Charles E., Limoges, France. Plate, &c.	20,630	Mar. 24	54	1566
Haviland, Charles E., Limoges, France. Dish	{ 20,631 to 20,633 }	Mar. 24	54	1566
Haviland, Charles E., Limoges, France. Jar	20,847	June 23	55	1534
Haviland, Charles E., Limoges, France. Ewer	20,848	June 23	55	1534
Haworth, Ezekiel H., assignor to J. Patterson, H. Coffeen, and M. Swallow, trustees, Council Bluffs, Iowa. Badge or seal	21,267	Dec. 29	57	1725
Haynes, David F., Baltimore, Md. Ewer or jug	20,450	Jan. 6	54	2
Haynes, David F., Baltimore, Md. Covered dish	20,451	Jan. 6	54	2
Hazlett, Charles S., Boone, Iowa, and J. West, Chicago, Ill., assignors to Barnhart Brothers & Spindler, of Illinois. Font of printing-type	20,514	Feb. 10	54	666
Heinz, Henry J., Pittsburg, Pa. Bottle	20,830	June 9	55	1280
Helphenstine, Rufus K., and J. E. McKahan, Washington, D. C. Bottle	21,244	Dec. 15	57	1432
Henderson, John T., Catskill, N. Y. Spoon, &c.	21,226	Dec. 8	57	1284
Henegen, Bates & Co. (See Mealy, John W., assignor.)				
Hepding, John G., Jersey City, N. J. Gem-setting	20,870	June 30	55	1656
Herman, Adolph E., Terre Haute, Ind. Coach-body	21,116	Oct. 13	57	128
Hero Fruit Jar Company. (See Perry, Frank W., assignor.)				
Herrick, Mary M., Marinette, Wis. Child's toy	20,484	Jan. 20	54	269

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Name, residence, and design.	No.	Date.	Official Gazette.	
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Hess, Alice G. (See Hess, Emil G. and W., assignors.)				
Hess, Emil G. and W., assignors to A. G. Hess, West Toronto Junction, Canada. Knob or pull ...	21,139	Oct. 27	57	416
Hess, Emil G. and W., assignors to A. G. Hess, West Toronto Junction, Canada. Knob or pull ...	{ 21,183 21,184 21,196 to 21,198 }	Nov. 24	57	1006
Hess, Emil G. and W., assignors to A. G. Hess, West Toronto Junction, Canada. Knob or pull ...	21,227	Dec. 1	57	{ 1135 1136 }
Hess, Emil G. and W., assignors to A. G. Hess, West Toronto Junction, Canada. Knob or pull ...	{ 20,682 20,683 }	Dec. 8	57	1284
Hess, Rolla W., St. Louis, Mo. Spoon	20,683	Apr. 21	55	291
Hess, William. (See Hess, Emil G. and W.)				
Hetzal, Margaret, Clifton Station, Va., assignor to J. E. Caldwell & Co., Philadelphia, Pa. Badge	21,117	Oct. 13	57	128
Heyer, Charles E., assignor to Barnhart Brothers & Spindler, Chicago, Ill. Font of printing-type	20,506	Feb. 3	54	510
Heyer, Charles E., assignor to Barnhart Brothers & Spindler, Chicago, Ill. Font of printing-type	20,749	May 19	55	870
Heyer, Charles E., assignor to Barnhart Brothers & Spindler, Chicago, Ill. Font of type ornaments	20,851	June 23	55	1534
Hill, Alvan M., New Orleans, La. Spoon	{ 20,722 20,723 }	May 19	55	870
Hill, Charles G., Arnot Hill, England. Edging or trimming	21,129	Oct. 27	57	416
Hill, Charles G., Nottingham, England. Braid or ruching	21,170	Nov. 10	57	698
Hill, Charles G., Nottingham, England. Ruffling	{ 21,250 to 21,262 }	Dec. 22	57	1600
Hoare, John, Corning, N. Y. Ornamentation of glass or other ware	20,504	Feb. 3	54	510
Hoffman, Frederick W. (See Marsh and Hoffman.)				
Hoffman, Frederick W., et al. (See Selkirk, Charles, assignor.)				
Holeywell, William H. (See Back, Albert, assignor.)				
Holmes & Edwards Silver Company. (See Wilkinson, George, assignor.)				
Holmes & Edwards Silver Company. (See Wilks, Walter L., assignor.)				
Hopcraft, Alfred, New York, N. Y. Advertising-card	20,524	Feb. 17	54	821
Hopper, Harrison, et al. (See Patton, William F., assignor.)				
Horan, Henry, East Orange, N. J., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	{ 20,940 20,941 20,594 20,595 }	July 14	56	146
Horton, Louis R., assignor to J. B. & S. M. Knowles, Providence, R. I. Handle for spoons, &c.	21,235	Mar. 24	54	1565
Hoschke, William H., Brooklyn, assignor to M. J. Paillard & Co., New York, N. Y. Cigar-lighter	21,243	Dec. 15	57	1432
Houston, Hugh B., assignor to J. E. Caldwell & Co., Philadelphia, Pa. Badge	20,651	Dec. 31	54	1717
Howard, Andrew, Beaver Falls, Pa. Lamp-shade				
Howard, Frank H. (See Walker and Howard.)				
Howe, Eugene L., Cleveland, Ohio. Snap-hook	21,236	Dec. 15	57	1432
Hoyt, George W., Chicago, Ill. Stocking-supporter clasp	21,090	Sept. 29	56	1568
Hoyt, George W., Chicago, Ill. Stocking-supporter clasp	21,114	Oct. 13	57	128
Hubbard, Charles W., Pittsburg, Pa. Ax	20,771	May 26	55	1002
Hubbard, George M., assignor to W. & E. T. Fitch, New Haven, Conn. Clasp for belts	{ 21,062 to 21,065 }	Sept. 22	56	1452
Hull, Gurdon W. (See Glahn and Hull.)				
Hutchins, Thomas W., Wyoming, Pa. Fence-post anchor	20,681	Apr. 21	55	291
I. B. Kleinert Rubber Company. (See Kleinert, Isaac B., assignor.)				
Ihlenburg, Herman, assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type	{ 20,546 20,547 }	Mar. 3	54	1117
Ihlenburg, Herman, assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type	21,101	Oct. 6	57	2
Ingoldsby, Frank S., St. Louis, Mo. Monument	21,093	Oct. 6	57	2
Irons, Charles F., Providence, R. I. Badge	20,645	Mar. 31	54	1716
Jaccard, Eugene G. E., assignor to Jaccard Watch and Jewelry Company, Kansas City, Mo. Spoon, &c.	20,804	June 2	55	1146
Jaccard Watch and Jewelry Company. (See Jaccard, Eugene G. E., assignor.)				
Jackson, Austin F., Taunton, Mass. Spoon, &c.	20,974	Aug. 4	56	531
Jackson, Austin F., Taunton, Mass. Spoon, &c.	21,038	Sept. 15	56	1340
Jackson, Austin F., Taunton, Mass. Spoon	{ 21,131 to 21,137 }	Oct. 27	57	416
Jackson, Austin F., assignor to Reed & Barton Corporation, Taunton, Mass. Back of brushes, &c.	20,472	Jan. 6	54	2
Jackson, Austin F., assignor to Reed & Barton Corporation, Taunton, Mass. Handle for spoons, &c.	20,692	Apr. 28	55	435
Jackson, Austin F., assignor to Reed & Barton Corporation, Taunton, Mass. Spoon, &c.	20,787	June 2	55	1146
Jackson, Austin F., assignor to Reed & Barton Corporation, Taunton, Mass. Spoon, &c.	{ 20,811 to 20,813 }	June 2	55	1146
Jackson, Austin F., assignor to Reed & Barton Corporation, Taunton, Mass. Spoon, &c.	20,835	June 16	55	1403
Jackson, Austin F., assignor to Reed & Barton Corporation, Taunton, Mass. Spoon, &c.	20,838	June 16	55	1403
Jackson, Austin F., assignor to Reed & Barton Corporation, Taunton, Mass. Spoon, &c.	20,863	June 30	55	1656
Jackson, William W., assignor to Mather Manufacturing Company, Philadelphia, Pa. Font of printing-type	20,589	Mar. 17	54	1422
Jackson, William W., assignor to Mather Manufacturing Company, Philadelphia, Pa. Font of printing-type	20,707	Apr. 28	55	436
Jackson, William W., assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type	20,702	Apr. 28	55	436
Jacobs Brothers. (See Baumgras, Erwin C., assignor.)				
Jacobs, Henry H., Washington, D. C. Spoon	20,822	June 9	55	1200
Jacobson, Siegmund, New York, N. Y. Apron	20,697	Apr. 28	55	435
Jameson, William A., Niagara Falls, N. Y. Spoon	21,077	Sept. 29	56	1568
Jamouneau, William H., Newark, N. J. Spoon, &c.	20,871	June 30	55	1656
Jamouneau, William H., Newark, N. J. Spoon, &c.	{ 20,942 20,943 }	July 14	56	146
Jamouneau, William H., Newark, N. J. Spoon, &c.	20,956	July 21	56	266
Jamouneau, William H., Newark, N. J. Spoon, &c.	20,967	July 28	56	401
Jamouneau, William H., Newark, N. J. Canoe or umbrella handle	21,130	Oct. 27	57	416
Jamouneau, William H., Newark, N. J. Spoon, &c.	21,252	Dec. 22	57	1600
Jarecki, Herman T., and G. A. Disque, Erie, Pa. Spoon	20,897	June 30	55	1656
Jaynes, Charles A., St. Louis, Mo. Water-closet bowl	20,659	Apr. 7	55	3
Jellison, James M., Boston, Mass. Drawer-pull	21,171	Nov. 10	57	698
Jenks, Robert H. (See Hatch, Jenks, and Wemple.)				
Jewett & Co., Sherman S. (See Bark, Birger, assignor.)				
Johannes, Ira H., Washington, D. C. Spoon, &c.	20,902	June 30	55	1656

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John Bromley & Sons. (See Bennett, Ernest, H., assignor.)				
John Bromley & Sons. (See Mein, Turner, assignor.)				
John Bromley & Sons. (See Pegel, Julius, assignor.)				
John Bromley & Sons. (See Petzold, Adolph, assignor.)				
John Bromley & Sons. (See Poole, Edward, assignor.)				
Johnson & Brandon. (See Johnson, Thomas, assignor.)				
Johnson, Hans T., assignor to O. Berg, Chicago, Ill. Picture-frame	21,078	Sept. 29	56	1568
Johnson, Thomas, assignor to Johnson & Brandon, St. Louis, Mo. Vapor-stove	20,957	July 21	56	266
Johnston, John H., New York, N. Y. Spoon	20,493 { to 20,496}	Feb. 3	54	510
Johnston, John H., New York, N. Y. Spoon, &c.	20,668	Apr. 7	55	3
Jones, Frank P., Manitowoc, Wis. School-seat	20,452	Jan. 6	54	2
Jones, William B., Newburyport, Mass. Handle for spoons, &c.	20,509	Feb. 10	54	666
Joy & Co., T. C. (See Joy, Thaddeus C., assignor.)				
Joy, Thaddeus C., assignor to T. C. Joy & Co., Titusville, Pa. Radiator	20,471	Jan. 6	54	2
Joy, Thaddeus C., Titusville, Pa., assignor to T. C. Joy and D. Colestock. Radiator	20,583	Mar. 17	54	1422
Justis, John C. C., Baltimore, Md. Handle for spoons, forks, &c.	20,725	May 19	55	870
Justis, John C. C., Baltimore, Md. Spoon	20,726	May 19	55	870
Kahn & Brother, F. & L. (See Kahn, Lazard, assignor.)				
Kahn, Lazard, assignor to F. & L. Kahn & Brother, Hamilton, Ohio. Open-front stove	20,831	June 16	55	1403
Kahn, Lazard, assignor to F. & L. Kahn & Brother, Hamilton, Ohio. Stove	21,024	Sept. 1	56	1064
Kaiser, Joseph H., Brownsville, Pa. Spoon	21,054	Sept. 22	56	1452
Kammer, John von der, Chicago, Ill. Incandescent-lamp globe	20,699	Apr. 28	55	435
Kammer, John von der, Chicago, Ill. Seal-piece	21,161	Nov. 10	57	698
Karl, Wendelin, Buffalo, N. Y. Curling-stone	20,525	Feb. 17	54	821
Karr, Henry C., Washington, D. C. Spoon, &c.	20,781	May 26	55	1002
Karr, Jacob, Washington, D. C. Spoon, &c.	20,823	June 9	55	1280
Keith, Albion. (See Merrill and Keith.)				
Kendall, William, Norfolk Island, South Pacific Ocean. Claw-hammer	20,852	June 23	55	1534
Kernan, Francis, Jr., Utica, and W. H. Landers, Syracuse, assignors to Kernan Furnace Company, Utica, N. Y. Furnace	20,648	Mar. 31	54	1717
Kernan Furnace Company. (See Kernan and Landers, assignors.)				
King, Edward J. (See Brayer and King.)				
King, John W., Jamestown, N. Y. Spoon or similar article	20,909	July 7	56	1
King, William C., Pittsburg, Pa. Jug	20,505	Feb. 3	54	510
Kirchberger, Moritz, New York, N. Y. Lamp-shade	20,853	June 23	55	1534
Kirk, R. N., et al. (See Hallock, Howard B., assignor.)				
Kleberg, Alexander A., and S. Hatt, Brooklyn, N. Y. Money-box	20,703	Apr. 28	55	436
Kleberg, Alexander A., and S. Hatt, Brooklyn, N. Y. Money-box	20,977	Aug. 11	56	665
Kleeberg, Philip, New York, N. Y. Embroidery-pattern	20,473	Jan. 6	54	2
Kleeberg, Philip, New York, N. Y. Embroidery	20,577	Mar. 10	54	1270
Kleeberg, Philip, New York, N. Y. Embroidery	20,652	Mar. 31	54	1717
Kleinert, Isaac B., New York, N. Y. Dress-shield	20,903	June 30	55	1656
Kleinert, Isaac B., assignor to I. B. Kleinert Rubber Company, New York, N. Y. Dress-shield	21,120	Oct. 20	57	278
Knowles, J. B. & S. M. (See Horton, Louis R., assignor.)				
Kochs, Theodor A. (See Rollert, Anton J., assignor.)				
Kopp, Nicholas, assignor to Fostoria Shade and Lamp Company, Fostoria, Ohio. Closed vessel with perforated cover	20,566	Mar. 10	54	1269
Kraetzer, Edwin J., Gloversville, N. Y. Glove-fastener socket	20,461	Jan. 6	54	2
Kramer, Edward A., New York, N. Y. Bottle	20,567	Mar. 10	54	1269
Kress, August. (See Enger and Kress.)				
Krouse, Andrew, Bridgeport, Conn. Cane-handle	20,854	June 23	55	1534
Kuehl, George. (See Steinberger, Louis, assignor.)				
Ladner, Alfred, Philadelphia, Pa. Watch-chain	21,109 { to 21,110}	Oct. 13	57	128
Lambert, Julius, Hoboken, N. J. Waist-belt	20,571	Mar. 10	54	1270
Landers, William H. (See Kernan and Landers.)				
Lane, William J., Poughkeepsie, N. Y. Frame for door-hangers	21,006	Aug. 18	56	807
Langhlin, Homer, East Liverpool, Ohio. Ornamentation of dishes	20,968	July 28	56	401
Latham, Henry J., Brooklyn, N. Y. Sign-letters	20,855	June 23	55	1534
Lanschke, Ernst. (See Schmohl and Lanschke.)				
Lawson, Edwin W., Elgin, Ill. Badge	20,453	Jan. 6	54	2
Lawton, George E., Sidney, N. Y. Salt-cup	20,795	June 2	55	1146
Lawton, Thomas L., assignor to J. Dunlap & Sons, Philadelphia, Pa. Carpet	20,454	Jan. 6	54	2
Lawton, Thomas L., assignor to J. Dunlap & Sons, Philadelphia, Pa. Carpet	20,462	Jan. 6	54	2
Lazarus, Augustus A., et al. (See Engstfeld, Ernst, assignor.)				
Lazarus, Augustus A., et al. (See Lipper, Benjamin, assignor.)				
Ledig, Charles W., assignor to Firm of Ledig & Way, Philadelphia, Pa. Hanging-lamp shade	21,035	Sept. 15	56	1340
Leding, Robert, Washington, D. C. Handle for spoons, &c.	20,649	Mar. 31	54	1717
Leding, Robert, Washington, D. C. Spoon, &c.	20,650	Mar. 31	54	1717
Lee, William W., Northampton, Mass. Table-knife	21,180	Nov. 24	57	1006
Lefferts, Marshall C., New York, N. Y., assignor to Electric Cutlery Company, Newark, N. J. Handle for razors	20,997	Aug. 18	56	807
Lefferts, Marshall C., New York, N. Y., assignor to Electric Cutlery Company, Newark, N. J. Razor-handle	21,013 { to 21,015}	Aug. 25	56	932
Leibe, Henry L., Newark, N. J. Cane or umbrella handle	20,745	May 19	55	870
Leonard, Charles H., Grand Rapids, Mich. Latch case and handle	21,118	Oct. 20	57	278
Lewis, Frederique R., Worcester, Mass., assignor to Wood & Lewis, Troy, N. Y. Cuff	20,634	Mar. 24	54	1566
Liebe, Henry L., Newark, N. J. Match or ash receiver	20,532	Feb. 24	54	963
Light, Milton K., Worcester, Mass. Badge	20,455	Jan. 6	54	2
Lillard, William B., New Orleans, La. Bottle	20,833	June 16	55	1403
Lipman, Lewis A., Brooklyn, N. Y. Album	20,568	Mar. 10	54	1269
Lipper, Benjamin, et al. (See Engstfeld, Ernst, assignor.)				
Lipper, Benjamin, assignor to A. A. Lazarus, I. A. Schwarz, and B. Lipper, Philadelphia, Pa. Dress-trimming	21,237	Dec. 15	57	1432
Lipper, Benjamin, assignor to A. A. Lazarus, I. A. Schwarz, and B. Lipper, Philadelphia, Pa. Dress-trimming	21,263 { to 21,264}	Dec. 22	57	1600
Litzelle, John C., Rockford, Ill. Musical instrument	20,998	Aug. 18	56	807
Lockwood, James F., Philadelphia, Pa. Toilet-powder box and perfumery-holder	20,715	May 12	55	719
Low, Seth F., Salem, Mass. Spoon, &c.	20,978	Aug. 11	56	665

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Lowell Manufacturing Company. (See Fisher, Edwin, assignor.)				
Lowell Manufacturing Company. (See Horan, Henry, assignor.)				
Lowell Manufacturing Company. (See Sauer, Emil G., assignor.)				
Lowell Manufacturing Company. (See Swapp, Charles W., assignor.)				
Ludwig, William H., Chambersburg, Pa. Napkin-ring	21,136	Dec. 1	57	1135
Lukens Iron and Steel Company. (See Groves, Robert S., assignor.)				
Lyon, James B., Pittsburg, Pa. Bottle or vase	20,898	June 30	55	1656
MacGillivray, Ebenezer K., Chicago, Ill. Spoon, &c.	20,796	June 2	55	1146
MacKellar, Smiths & Jordan Company. (See Beeler, Charles H., Jr., assignor.)				
MacKellar, Smiths & Jordan Company. (See Ihlenburg, Herman, assignor.)				
MacKellar, Smiths & Jordan Company. (See Jackson, William W., assignor.)				
Macintosh & Company, Charles. (See Coops, Charles, assignor.)				
Maddock & Steel. (See Dean, Jesse, assignor.)				
Maher, Jeremiah L., West Superior, Wis. Bell	21,055	Sept. 22	56	1452
Maillot, John W., assignor to F. M. Whiting & Co., North Attleborough, Mass. Spoon, &c.	20,782	May 26	55	1092
Maish, Calvin H., Carson City, Nev. Easel	21,143	Nov. 3	57	550
Mann, Louis, New York, N. Y. Jewel-setting	20,477	Jan. 13	54	142
Mannheim & Co., William. (See Fox, Emil, assignor.)				
Markgraf, Adam, assignor to Eden Manufacturing Company, Eden, Pa. Curtain or portière	20,637	Mar. 24	54	1566
Marsh, Benjamin, et al. (See Selkirk, Charles, assignor.)				
Marsh, Benjamin, assignor to Marsh & Hoffman, Albany, N. Y. Spoon	20,948	July 21	56	266
Marsh, Benjamin, and F. W. Hoffman, Albany, N. Y. Spoon	{ 20,923 } { 20,924 }	July 7	56	2
Marsh & Hoffman. (See Marsh, Benjamin, assignor.)				
Marx, Zero, Chicago, Ill. Sign	20,839	June 16	55	1403
Mather Manufacturing Company. (See Jackson, William W., assignor.)				
Mayer, David, Hartford, Conn. Spoon, &c.	20,904	June 30	55	1656
Mayo, Benjamin J., Newark, N. J. Spoon	21,175	Nov. 17	57	850
McBride, John E., Clintou, N. Y. Dish	20,487	Jan. 20	54	269
McCann, Thomas E., Philadelphia, Pa. Collar	20,872	June 30	55	1656
McDermott, William, Louisville, Ky. Fire-place front	20,917	July 7	56	1
McElroy, Charles B., and T. W. Minshull, Cleveland, Ohio. Badge	20,580	Mar. 10	54	1270
McFarland, Charles M., Worcester, Mass. Spoon, &c.	21,165	Nov. 10	57	698
McGill, George W., New York, N. Y. Paper-fastener	{ 21,098 } { 21,099 }	Oct. 6	57	2
McGill, George W., New York, N. Y. Paper-fastener	21,112	Oct. 13	57	128
McKahan, James E. (See Helphenstine and McKahan.)				
Mealy, John W., assignor to Henegen, Bates & Co., Baltimore, Md. Spoon	21,043	Sept. 15	56	1340
Meeker, Stephen J., Newark, N. J. Hose-reel bracket	20,530	Feb. 24	54	963
Mein, Turner, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover, &c.	21,008	Aug. 25	56	932
Mein, Turner, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover, &c.	21,010	Aug. 25	56	932
Meinecke, Christian W., Jersey City, N. J. Pot or jar	20,490	Jan. 27	54	394
Menke, Henry, Philadelphia, Pa. Money-jug	21,231	Dec. 8	57	1284
Mercer, Harry, Birmingham, Ala. Spoon	21,144	Nov. 3	57	550
Merrill, Jonathan A., and A. Keith, Portland, Me. Spoon, &c.	21,017	Aug. 25	56	932
Meyer, Charles T. and V. E., Jersey City, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth	{ 20,873 } { 20,892 } { 21,066 }	June 30	55	1656
Meyer, Charles T. and V. E., Jersey City, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth	{ 21,069 } { 21,202 } { 21,219 }	Sept. 22	56	1452
Meyer, Charles T. and V. E., Jersey City, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth		Dec. 8	57	1284
Meyer, Charles T. and V. E., Jersey City, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth	21,232	Dec. 8	57	1284
Meyer, Victor E. (See Meyer, Charles T. and V. E.)				
Michael, William F., assignor to Bailey, Banks & Biddle, Philadelphia, Pa. Spoon	20,990	Aug. 11	56	666
Michael, William F., assignor to Bailey, Banks & Biddle, Philadelphia, Pa. Spoon	21,025	Sept. 1	56	1064
Michael, William F., assignor to Bailey, Banks & Biddle, Philadelphia, Pa. Spoon	21,040	Sept. 15	56	1340
Michael, William F., assignor to Bailey, Banks & Biddle, Philadelphia, Pa. Spoon	21,127	Oct. 20	57	278
Mickle, John, et al. (See Nicholson, John W., assignor.)				
Milliken, Benjamin D., Somerville, Mass. Cigar-lighter	20,497	Feb. 3	54	510
Milliken, Foster, New York, N. Y. Metallic post	{ 21,074 } { 21,076 }	Sept. 29	56	1568
Miller, Frederick J. X., Olympia, Wash. Easel	21,048	Sept. 15	56	1340
Minshull, Thomas W. (See McElroy and Minshull.)				
Moffat, John B., assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	20,596	Mar. 24	54	1565
Monroe, Charles F., Meriden, Conn. Salt-cellar, &c.	20,788	June 2	55	1146
Moodie, Elhanan L., New York, N. Y. Paper-weight or cigar-holder	20,676	Apr. 14	55	144
Moore, Alexander P., Chicago, Ill. Bottle	21,238	Dec. 15	57	1432
Moulton, George B., Baker City, Oreg. Stirrup	20,746	May 19	55	870
Mount Washington Glass Company. (See Singleton, Thomas, Jr., assignor.)				
Munson, Mary K., Chicago, Ill. Spoon	20,979	Aug. 11	56	666
Murphy, William T., New York, N. Y. Bottle	20,469	Jan. 6	54	2
Mussinan, Oscar, Jr., New York, assignor to E. Faber, West New Brighton, N. Y. Pen-holder	21,195	Dec. 1	57	1135
National Society, Daughters of the American Revolution. (See Goode, George B., assignor.)				
National Weighing Machine Company. (See Patterson, Herman E., assignor.)				
New York Consolidated Card Company. (See Cohen, Solomon L., assignor.)				
Nicholson, John W., assignor to J. Whittall, Philadelphia, Pa., J. Mickle, Millville, N. J., C. A. Tatum, New York, N. Y., J. M. Whittall, J. W. Nicholson, Philadelphia, Pa., and F. M. Underhill, New York, N. Y. Bottle	20,527	Feb. 24	54	963
Nicol, Robert, Jr., Chicago, Ill. Curling-iron ornamentation	21,026	Sept. 1	56	1064
Nolley, David D., Wilson, N. C. Latch	20,480	Jan. 13	54	142
North American Iron Works. (See Tweeddale, William, assignor.)				
O. K. Stove and Range Company. (See Ouerbacker, Joseph P., assignor.)				
Oakman, Thomas C., Aurora, Ill. Medal	21,272	Dec. 29	57	1725
Oehrle Brothers & Co. (See Oehrle, William E., assignor.)				
Oehrle, William E., assignor to Oehrle Brothers & Co., Philadelphia, Pa. Tassel	21,094	Oct. 6	57	2
Officer, Julia E., Council Bluffs, Iowa. Spoon	21,154	Nov. 3	57	550
Oftelie, John W., Bearden, Ark. Sign-plate	20,572	Mar. 10	54	1270
Ohmer, George, Dayton, Ohio. Pleasure-boat	21,031	Sept. 8	56	1208

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Oldham, William G., assignor to W. T. Smith & Son, Philadelphia, Pa. Chenille fabric	21,271	Dec. 29	57	1725
Osborn, Henry E., Lancaster, Pa. Cane or umbrella handle	20,769	May 19	55	870
Osborne, Charles, assignor to Whiting Manufacturing Company, New York, N. Y. Handle for spoons, &c.	20,466	Jan. 6	54	2
Osborne, Charles, assignor to Whiting Manufacturing Company, New York, N. Y. Spoon, &c.	20,636	Mar. 24	54	1566
Osborne, Charles, assignor to Whiting Manufacturing Company, New York, N. Y. Spoon or similar article	20,910	July 7	56	1
Osborne, Charles, assignor to Whiting Manufacturing Company, New York, N. Y. Spoon	21,027	Sept. 1	56	1064
Ostergren, Otto F., and A. K. Schaap, Richmond, Va. Garment-protector	20,548	Mar. 3	54	1117
Ostrom, Freeland W., Bridgeport, Conn. Soap-stand	21,056	Sept. 22	56	1452
Oswald, Charles, Newark, N. J. Satchel or bag	20,819	June 9	55	1280
Overbacker, Joseph P., assignor to O. K. Stove and Range Company, Louisville, Ky. Fire-place front	{ 21,121 21,122 }	Oct. 20	57	278
Pairpoint Manufacturing Company. (See Adams, Samuel T., assignor.)				
Pairpoint Manufacturing Company. (See Bremer, Max, assignor.)				
Pairpoint Manufacturing Company. (See Smith, Walter F., assignor.)				
Pairpoint Manufacturing Company. (See Sperry, Albert A., assignor.)				
Parker & Davis. (See Parker, Edwin M., assignor.)				
Parker, Edwin M., assignor to Parker & Davis, Bridgeport, Conn. Spoon, &c.	20,914	July 7	56	1
Parton, Henry W., assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	{ 20,597 to 20,612 20,754 }	Mar. 24	54	1565
Parton, Henry W., assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	{ 20,762 to 20,791 }	May 19	55	870
Parton, Henry W., assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	20,791	June 2	55	1146
Patz, Philippe & Co. (See Philippe, Adrien, assignor.)				
Patitz, Albert, assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Lamp-fount holder	{ 20,864 to 20,867 }	June 30	55	1656
Patterson, Herman E., Passaic, N. J., assignor to National Weighing Machine Company, New York, N. Y. Case for weighing-machines	20,660	Apr. 7	55	3
Patterson, James, et al., trustees. (See Haworth, Ezekiel H., assignor.)				
Patton, William F., assignor of two-thirds to H. Hopper and J. Young, Hopkinsville, Ky. Bulletin-board	20,905	June 30	55	1656
Peacock, Jacob S., Lancaster, Pa. Padlock	20,834	June 16	55	1403
Pearsall, George F. E., Brooklyn, N. Y. Photograph-mount	20,840	June 16	55	1403
Pearson, Edmund C., Newburyport, Mass. Cracker, &c.	20,662	Apr. 7	55	3
Pearson, Edward M., Wheeling, W. Va. Dish	21,102	Oct. 6	57	2
Pechey, Elisha, London, assignor to Stephenson, Blake & Co., Sheffield, England. Font of printing-type	21,145	Nov. 3	57	550
Pechey, Elisha, London, assignor to Stephenson, Blake & Co., Sheffield, England. Font of type ornaments	21,176	Nov. 17	57	850
Pegel, Julius, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover	20,981	Aug. 11	56	666
Pegel, Julius, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover, &c.	20,982	Aug. 11	56	666
Pegel, Julius, Philadelphia, Pa., assignor to J. Bromley & Sons. Rug	{ 20,983 20,984 }	Aug. 11	56	666
Pegel, Julius, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover, &c.	{ 20,985 20,986 }	Aug. 11	56	666
Pegel, Julius, Philadelphia, Pa., assignor to J. Bromley & Sons. Rug	21,001	Aug. 18	56	807
Pegel, Julius, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover or curtain	21,002	Aug. 18	56	807
Pegel, Julius, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover	21,020	Sept. 1	56	1064
Pegel, Julius, Philadelphia, Pa., assignor to J. Bromley & Sons. Rug	{ 21,021 21,022 }	Sept. 1	56	1064
Pegel, Julius, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover	21,023	Sept. 1	56	1064
Pelissons, Henry G., assignor to F. W. Sim & Co., Troy, N. Y. Spoon, fork, &c.	20,843	June 16	55	1403
Perry, Frank W., assignor to Hero Fruit Jar Company, Philadelphia, Pa. Calendar-mount	20,677	Apr. 14	55	144
Perry, Judson D., Detroit, Mich. Badge	21,095	Oct. 6	57	2
Peter L. Krider Company. (See Wood, William E., assignor.)				
Peters, Christian A., Cincinnati, Ohio. Flower-easel	21,044	Sept. 15	56	1340
Petersen, Charles, Honesdale, Pa. Spoon, &c.	20,816	June 2	55	1146
Peterson, Charles P., assignor to Cabill Iron Works, Chattanooga, Tenn. Grate	20,573	Mar. 10	54	1270
Pettibone, James, Avondale, Ohio. Button	20,790	June 2	55	1146
Pettibone, James, Avondale, Ohio. Ballot-box	20,797	June 2	55	1146
Petzold, Adolph, Philadelphia, Pa., assignor to J. Bromley & Sons. Rug	20,474	Jan. 6	54	2
Petzold, Adolph, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover, &c.	20,980	Aug. 11	56	666
Petzold, Adolph, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover or curtain	21,003	Aug. 18	56	807
Petzold, Adolph, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover, &c.	21,009	Aug. 25	56	932
Petzold, Adolph, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover, &c.	21,016	Aug. 25	56	932
Pfneuger, Ernest F., Akron, Ohio. Roll-spring for collar-pad fasteners	20,456	Jan. 6	54	2
Ph. Hake Manufacturing Company. (See Raisbeck, George A., assignor.)				
Philippe, Adrien, assignor to Patck, Philippe & Co., Geneva, Switzerland. Watch-bridge	20,483	Jan. 13	54	142
Phillips, George H., Geneva, N. Y. Heating-stove	20,467	Jan. 6	54	2
Phillips, George H., Geneva, N. Y. Cooking-stove	20,468	Jan. 6	54	2
Phillips, Walter, Coventry, England. Rubber tire for wheels	20,824	June 9	55	1280
Pierce, John B., Buffalo, N. Y. Radiator	21,028	Sept. 1	56	1064
Pignot, Paul, Hastings, assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	{ 20,613 to 20,618 20,763 }	Mar. 24	54	1565
Pignot, Paul, Hastings, assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	{ 20,767 to 20,767 }	May 19	55	870
Pinkus, Frederick S., New York, N. Y. Napkin or table-cloth	21,080	Sept. 29	56	1568
Plumb, William H., Ansonia, Conn. Work-basket	21,187	Dec. 1	57	1135
Pol, Bernhard, Bangor, Me. Spoon, &c.	20,961	July 21	56	266
Poole, Edward, Philadelphia, Pa., assignor to J. Bromley & Sons. Table-cover	{ 21,081 21,082 }	Sept. 29	56	1568
Power, Villoughby H. (See Böhm and Power.)				
Prange, Leo, Brooklyn, N. Y. Jet button	21,030	Sept. 8	56	1208
Pray, Joseph P., New York, N. Y. File	21,000	Aug. 18	56	807
Proeger, Julius, Greensburg, Pa. Ornamentation of glassware	21,113	Oct. 13	57	128
Proeger, Julius, Greensburg, Pa. Vessel	21,181	Nov. 24	57	1006
Pulsifer, Frank H., Jr., Auburn, N. Y. Radiator	21,177	Nov. 17	57	850
Putnam, William H., Rome, N. Y. Sign-letter	20,918	July 7	56	1

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R. Wallace & Sons Manufacturing Company. (See Clulee, Harry L., assignor.)				
Raisbeck, George A., Brooklyn, assignor to P. Hake Manufacturing Company, New York, N. Y. Writing-paper	20,911	July 7	56	1
Randolph, Thaddens F., <i>et al.</i> (See Collins, Timothy J., assignor.)				
Ransom, John R. B., <i>et al.</i> (See Collins, Timothy J., assignor.)				
Ransom & Randolph. (See Collins, Timothy J., assignor.)				
Rathbone, Sard & Co. (See Van Buren, Jafew S., assignor.)				
Reddie, Archibald F., Philadelphia, Pa. Carpet	20,783	May 26	55	1002
Redlich, Charles F., Brooklyn, N. Y. Powder-sprinkler	{ 21,103 } 21,104	Oct. 6	57	2
Reed & Barton Corporation. (See Jackson, Austin F., assignor.)				
Reed, John R., Westfield, Mass. Radiator loop-pipe	20,565	Mar. 3	54	1117
Reed, John R., Westfield, Mass. Radiator	20,574	Mar. 10	54	1270
Rheinstrom, Abraham, Cincinnati, Ohio. Bottle	20,581	Mar. 10	54	1270
Ripley, Nathaniel L., Newton, Mass. Jewel-setting	20,949	July 21	56	266
Ritchie, Francis, Troy, N. Y., assignor to I. A., F. L., and H. R. Sheppard, Philadelphia, Pa. Heating-stove	{ 20,972 } 20,973	July 28	56	401
Ritchie, Francis, Troy, N. Y., assignor to I. A., F. L., and H. R. Sheppard, Philadelphia, Pa. Open-front stove	21,228	Dec. 8	57	1284
Rives, George W., Rochester, N. Y. Face-plate for registers	{ 21,123 } 21,124	Oct. 20	57	278
Robbins, Frank A., Pittsfield, Mass. Spoon, &c.	20,893	June 30	55	1656
Roberts, Steele F., Allegheny, Pa. Handle for spoons, forks, &c.	20,708	May 5	55	577
Roberts, Steele F., Allegheny, Pa. Spoon	20,712	May 5	55	577
Rodiger, William, Chicago, Ill. Bottle	20,792	June 2	55	1146
Rogers, Ethan, Ballston, N. Y., assignor to Simmons Hardware Company, of Missouri. Ax.	21,253	Dec. 22	57	1600
Rollert, Anton J., assignor to T. A. Kochs, Chicago, Ill. Barber's chair	{ 20,925 } to 20,927	July 7	56	2
Roos, Christian P., assignor to R. Graves Company, New York, N. Y. Wall-paper	20,457	Jan. 6	54	2
Rowan, Samuel, New York, N. Y. Calendar	20,856	June 23	55	1534
Rowan, Samuel, New York, N. Y. Brush-back	20,857	June 23	55	1534
Royle, John J., Manchester, England. Wash-basin	20,908	July 7	56	1
Russell & Irwin Manufacturing Company. (See Christesen, Rodolphe W. E., assignor.)				
Ruth, Charles L., Montgomery, Ala. Spoon	21,166	Nov. 10	57	698
Ryan, John M., assignor of one-half to C. F. Goodwin & Son, Waterbury, Conn. Carriage-canopy	21,083	Sept. 29	56	1568
Sagendorph, Longley L., Philadelphia, Pa. Siding-plate for buildings	20,825	June 9	55	1280
Sagendorph, Longley L., Philadelphia, Pa., assignor of one-half to C. N. Harder, Philmont, N. Y. Roofing-plate	20,531	Feb. 24	54	963
Sagendorph, Longley L., Philadelphia, Pa., assignor of one-half to C. N. Harder, Philmont, N. Y. Roofing-plate	20,728	May 19	55	870
Salisbury Tobacco Company. (See Harris, Daniel, assignor.)				
Sampson, Edward C. (See Meyer, Charles T. and V. E., assignors.)				
Sanders, Barney H., assignor to Ette & Henger Manufacturing Company, St. Louis, Mo. Bracket	21,199	Dec. 1	57	1136
Sargent, Samuel R., Cleveland, Ohio. Wash-board	20,770	May 19	55	870
Sauer, Emil G., Brooklyn, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	{ 20,805 } to 20,808	June 2	55	1146
Sauer, Emil G., Brooklyn, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	20,820	June 9	55	1280
Sauer, Emil G., Brooklyn, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	20,975	Aug. 4	56	531
Scanlan & Co. (See Braun, Cornelius, assignor.)				
Schaap, Alexander K. (See Ostergren and Schaap.)				
Schall, Ernst. (See Stevens, James R., assignor.)				
Schall, Ernst, Hartford, Conn. Spoon or fork	20,584	Mar. 17	54	1422
Schall, Ernst, Hartford, Conn. Spoon	20,704	Apr. 28	55	436
Schlechter, Gustavus A., Reading, Pa. Medal	20,970	July 28	56	401
Schlechter, Gustave A., Reading, Pa. Medal	21,146	Nov. 3	57	550
Schlechter, Gustave A., Reading, Pa. Spoon, &c.	21,229	Dec. 8	57	1284
Schlechter, Gustave A., Reading, Pa. Spoon	21,239	Dec. 15	57	1432
Schleicher, William A., Cleveland, Ohio. Vehicle-step	{ 21,188 } to 21,191	Dec. 1	57	1135
Schmid, Albert, Allegheny, Pa. Oil-box	20,481	Jan. 13	54	142
Schmidt, Henry O., New York, N. Y., assignor to Simons Brothers & Co., Philadelphia, Pa. Cane or umbrella handle	{ 20,549 } to 20,561	Mar. 3	54	1117
Schmohl, Julius, and E. Lauschke, Chicago, Ill., assignors to Barnhart Brothers & Spindler, of Illinois. Font of printing-type	{ 20,515 } 20,516	Feb. 10	54	666
Schmohl, Julius, and E. Lauschke, Chicago, Ill., assignors to Barnhart Brothers & Spindler, of Illinois. Font of printing-type	20,778	May 26	55	1002
Schmohl, Julius, and E. Lauschke, assignors to Barnhart Brothers & Spindler, Chicago, Ill. Font of printing-type	21,125	Oct. 20	57	278
Schrader, Henry, Brooklyn, N. Y. Carpet	20,470	Jan. 6	54	2
Schroeder, Gustave, St. Louis, Mo., assignor to Barnhart Brothers & Spindler, Chicago, Ill. Font of printing-type	21,119	Oct. 20	57	278
Schumacher, Jacob, Camden, N. J. Banjo	21,057	Sept. 22	56	1452
Schumacher, William, Brooklyn, N. Y. Sign-letter	21,147	Nov. 3	57	550
Schwarz, Isaac A., <i>et al.</i> (See Engstfeld, Ernst, assignor.)				
Schwarz, Isaac A., <i>et al.</i> (See Lipper, Benjamin, assignor.)				
Schwatka, Frederick, Rock Island, Ill. Spoon, &c.	20,832	June 16	55	1403
Scooler, Maurice, New Orleans, La. Handle for spoons, &c.	20,698	Apr. 28	55	435
Scott, Adam, Wilmington, Ohio. Collar-pad	20,919	July 7	56	1
Selkirk, Charles, assignor to B. Marsh and F. W. Hoffman, Albany, N. Y. Spoon	20,929	July 7	56	2
Senter, William, Portland, Me. Spoon, &c.	21,167	Nov. 10	57	698
Shannon, Edward W., Waterbury, Conn. Spoon	20,809	June 2	55	1146
Shannon, James F., assignor to himself and A. W. Falkenthal, Macomb, Ill. Tool-hammer	20,777	May 26	55	1002
Shaw, George E., Putnam, Conn. Spoon	21,058	Sept. 22	56	1452
Shepard, Charles G., and P. Adams, Buffalo, N. Y.; said Adams assignor to W. J. Shepard. Toy savings-bank	21,036	Sept. 15	56	1340
Shepard, Walter J. (See Shepard and Adams, assignors.)				
Shepherd, John L., Brooklyn, N. Y. Spoon	20,798	June 2	55	1146

Alphabetical list of patentees of designs—Continued.

Name, residence, and design.	No.	Date.	Official Gazette.	
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Sheppard, Franklin L., <i>et al.</i> (See Ritchie, Francis, assignor.)				
Sheppard, Howard R., <i>et al.</i> (See Ritchie, Francis, assignor.)				
Sheppard, Isaac A., <i>et al.</i> (See Ritchie, Francis, assignor.)				
Sherman, Elijah C., Montrose, Pa. Game-board	20,478	Jan. 13	54	142
Sherman, Jesse T., New Bedford, Mass. Spoon	20,705	Apr. 28	55	436
Sherwood, Calder S., Portsmouth, Va. Spoon	20,858	June 23	55	1534
Shickluna, George, St. Catherines, Ontario, assignor to L. Harrington, Toronto, Canada. Family altar	20,492	Jan. 27	54	394
Shiehler, George W., Brooklyn, N. Y. Spoon	20,859	June 23	55	1534
Shiehler, George W., Brooklyn, N. Y. Spoon, &c	20,920	July 7	56	2
Shurtlett, Asahel M., Boston, Mass. Cap and nozzle for atomizers	21,148	Nov. 3	57	550
Sim & Co., F. W. (See Peirsons, Henry G., assignor.)				
Simmons Hardware Company. (See Rogers, Ethan, assignor.)				
Simons Brothers & Co. (See Schmidt, Henry O., assignor.)				
Singleton, Thomas, Jr., assignor to Mount Washington Glass Company, New Bedford, Mass. Ornamentation of glassware	21,173	Nov. 17	57	850
Sisson, Charles, Providence, R. I. Tape	20,958	July 21	56	266
Sloan, Frederick H., Hartford, Conn. Spoon, &c	20,537	Mar. 3	54	1117
Sloan, Frederick H., Hartford, Conn. Handle for spoons, &c	20,625	Mar. 24	54	1565
Smith, Charles H., Columbus, Ohio. Badge	20,969	July 28	56	401
Smith, Francis H., Washington, D. C. Gummed stamp	21,140	Oct. 27	57	416
Smith, Frank W. (See Stone, Arthur J., assignor.)				
Smith, Joseph R., Waterbury, Conn. Glove-fastener cap	20,463	Jan. 6	54	2
Smith, Lewis C., assignor to himself and T. G. Dickerson, Port Jefferson, Ohio. Grave-cover	20,992	Aug. 18	56	807
Smith & Son, C. R. (See Crowell, Gilbert L., Jr., assignor.)				
Smith & Son, William T. (See Oldham, William G., assignor.)				
Smith, Walter F., assignor to Pairpoint Manufacturing Company, New Bedford, Mass. Coffin-plate	21,111	Oct. 13	57	128
Smith, William T., Philadelphia, Pa. Chenille fabric	21,273	Dec. 29	57	1725
Snyder, Harry B., Denver, Colo. Cane	20,991	Aug. 11	56	666
Spahr, Walter H., St. Louis, Mo. Advertising-card	20,663	Apr. 7	55	3
Spaulding & Company. (See Spaulding, Henry A., assignor.)				
Spaulding, Henry A., assignor to Spaulding & Company, Chicago, Ill. Spoon	21,041	Sept. 15	56	1340
Spear, Guy M., Waltham, and A. T. Sylvester, Newtonville, Mass. Spoon, &c	20,789	June 2	55	1146
Spencer, Turner & Boldero. (See Thorne, William H., assignor.)				
Sperry, Albert A., assignor to Pairpoint Manufacturing Company, New Bedford, Mass. Spoon, &c	20,776	May 26	55	1002
Spooner, Alonzo W., Port Hope, Ontario, Canada. Metal bar	20,507	Feb. 3	54	510
Springsteen, Silas, Manitowoc, Wis. Church-pew	20,868	June 30	55	1656
Stahmer, Herman F., Brooklyn, assignor of one-half to Browster & Company, New York, N. Y. Lamp	{ 20,670 } { 20,671 }	Apr. 14	55	144
Stauffer, David F., York, Pa. Bretzel or cracker	20,860	June 23	55	1534
Steber, Bernard T., Montreal, Canada, assignor to Dominion Tubular Lamp Company, Syracuse, N. Y. Tubular lantern	21,254	Dec. 22	57	1600
Steffens, Nicholas, New York, N. Y. Flower-frame	{ 20,533 } { 20,534 }	Feb. 24	54	963
Steffens, Nicholas, New York, N. Y. Flower-frame	20,638	Mar. 24	54	1566
Stein, Leo, Rochester, N. Y. Burial-casket	20,491	Jan. 27	54	394
Steinberger, Louis, New York, N. Y., assignor to G. Kuehl, Chicago, Ill. Game-counter	{ 20,709 } { 20,710 } { 20,619 }	May 5	55	577
Stengel, George J., assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	{ 20,624 } { 20,768 }	Mar. 24	54	1565
Stengel, George J., assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	20,768	May 19	55	870
Stephenson, Blake & Co. (See Pechey, Elisha, assignor.)				
Stern, Jose, Chicago, Ill. Medal	21,255	Dec. 22	57	1600
Stevens Company, J. & E. (See Frisbie, Russel, assignor.)				
Stevens, James R., Hartford, Conn., assignor to B. Schall. Spoon, &c	20,727	May 19	55	870
Stilz, Louis E., assignor to Supreme Castle of the Order of the Knights of the Golden Eagle, Philadelphia, Pa. Badge	20,511	Feb. 10	54	666
Stone, Arthur J., assignor to F. W. Smith, Gardner, Mass. Ornamentation of table-ware	21,115	Oct. 13	57	128
Stone, Arthur J., assignor to F. W. Smith, Gardner, Mass. Spoon, &c	{ 21,268 } { 21,269 }	Dec. 29	57	1725
Story, John T., Rochester, N. Y. Show-card	21,047	Sept. 15	56	1340
Strough, Francis A., Philadelphia, N. Y. Badge	21,230	Dec. 8	57	1244
Stuebner, Gustavus L., Long Island City, N. Y. Dumping bucket	20,906	June 30	55	1656
Supreme Castle of the Order of the Knights of the Golden Eagle. (See Stilz, Louis E., assignor.)				
Swallow, Marion, <i>et al.</i> , trustees. (See Haworth, Ezekiel H., assignor.)				
Swan, William J., Detroit, Mich. Drawer-pull	20,498	Feb. 3	54	510
Swapp, Charles W., New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	{ 20,944 } { 20,945 }	July 14	56	146
Swapp, Charles W., New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	21,039	Sept. 15	56	1340
Swart, Haverley B., Worcester, Mass. Spoon or fork handle	20,653	Mar. 31	54	1717
Sylvester, Anstin T. (See Spear and Sylvester.)				
Tatum, C. Albert, <i>et al.</i> (See Nicholson, John W., assignor.)				
Tatum, Charles A., assignor to Whitall, Tatum & Co., New York, N. Y. Breast-pump	20,585	Mar. 17	54	1422
Taylor, Hugh W., Aurora, Ill. Medallion	20,899	June 30	55	1656
Taylor, Jesse, Garden City, Kans. Button or badge	21,274	Dec. 29	57	1725
Tenney Company. (See Tenney, Hermann J., assignor.)				
Tenney, Hermann J., New York, N. Y., assignor to Tenney Company, of New York. Box	21,168	Nov. 10	57	698
Thomas, James F., assignor to J. E. Caldwell & Co., Philadelphia, Pa. Spoon	20,987	Aug. 11	56	666
Thomas, Walter, assignor to A. Smith & Sons Carpet Company, Yonkers, N. Y. Carpet	{ 20,626 } { 20,628 }	Mar. 24	54	1566
Thompson, Charles E., Lansingburg, N. Y. Brush	20,486	Jan. 20	54	269
Thorne, William H., Exmouth, assignor to Spencer, Turner & Boldero, London, England. Teacanister	20,951	July 21	56	266
Thümler, Franz H., Chicago, Ill. Flask or bottle	21,174	Nov. 17	57	850
Thurber, William H., Providence, R. I. Spoon	20,971	July 28	56	401
Tilton, George P., assignor to Towle Manufacturing Company, Newburyport, Mass. Spoon	{ 20,731 } { 20,734 }	May 19	55	870
Tilton, George P., assignor to Towle Manufacturing Company, Newburyport, Mass. Spoon, &c	20,931	July 14	56	146
Tower, John J., Brooklyn, N. Y. Wrench-handle	20,932	July 14	56	146

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Towle Manufacturing Company. (See Balch, George H., assignor.)				
Towle Manufacturing Company. (See Tilton, George P., assignor.)				
Trowbridge, Charles E., assignor to Whitinsville Spinning Ring Co., Whitinsville, Mass. Spinning-ring	20,538	Mar. 3	54	1117
Tucker, Frank W., Winthrop, assignor to F. F. French, Winchester, Mass. Money-cart	21,246	Dec. 15	57	1432
Tugby, Thomas, Niagara Falls, N. Y. Watch-charm	20,485	Jan. 20	54	269
Turner, Charles A., Brooklyn, N. Y. Horse-blanket	20,539	Mar. 3	54	1117
Turner, John H., Washington, D. C. Badge	21,245	Dec. 15	57	1432
Turner, Luther G., New York, N. Y., assignor to Turner & Seymour Manufacturing Company, Torrington, Conn. Umbrella or parasol handle	20,747	May 19	55	870
Turner & Seymour Manufacturing Company. (See Turner, Luther G., assignor.)				
Tuttle & Bailey Manufacturing Company. (See Tuttle, Edward A., assignor.)				
Tuttle, Edward A., assignor to Tuttle & Bailey Manufacturing Company, New York, N. Y. Register-front	20,779	May 26	55	1002
Tweeddale, William, Brooklyn, assignor to North American Iron Works, New York, N. Y. Settee	20,729	May 19	55	870
Tweeddale, William, Brooklyn, assignor to North American Iron Works, New York, N. Y. Gate	20,730	May 19	55	870
Underhill, Francis M., et al. (See Nicholson, John W., assignor.)				
Underhill, Francis M., assignor to Whitall, Tatum & Co., New York, N. Y. Druggist's show-bottle	20,836	June 16	55	1403
Unger Brothers. (See Beach, Edward P., assignor.)				
United States Automatic Perfumery Company. (See Giannini, Orlando, assignor.)				
Van Buren, Jafew S., assignor to Rathbone, Sard & Co., Albany, N. Y. Heating-stove	20,784	May 26	55	1002
Van Buren, Jafew S., assignor to Rathbone, Sard & Co., Albany, N. Y. Stove	21,100	Oct. 6	57	2
Van Houten, Erskine J. S., Nyack, N. Y. Bottle	21,192	Dec. 1	57	1135
Van Kannel, Theophilus, Philadelphia, Pa., assignor to Cannery Supply Company, Bridgeton, N. J. Tray	20,928	July 7	56	2
Van Roden, George C., assignor to J. E. Caldwell & Co., Philadelphia, Pa. Badge	20,748	May 19	55	870
Vandenburgh, John V. W., Chicago, Ill. Paper-weight	21,150	Nov. 3	57	550
Vandenburgh, John V. W., Chicago, Ill. Button	21,151	Nov. 3	57	550
Vandenburgh, John V. W., Chicago, Ill. Pendant	21,152	Nov. 3	57	550
Wagenführ, Charles, Brooklyn, N. Y. Brush or mirror back, &c	21,018	Aug. 25	56	932
Wagner, Louis C., New York, N. Y. Cigar-band	20,799	June 2	55	1146
Walk, Julius C., assignor to Bingham & Walk, Indianapolis, Ind. Spoon	21,079	Sept. 29	56	1568
Walker, David, Newark, N. J. Stair-carpet fastener	{ 20,499 } to { 20,501 }	Feb. 3	54	510
Walker, David, Newark, N. J. Stair-carpet button or fastener	20,661	Apr. 7	55	3
Walker, David, and F. H. Howard, Newark, N. J.; said Howard assignor to said Walker. Stair-carpet button	20,540	Mar. 3	54	1117
Walton, George W., Grayling, Mich. Can	20,562	Mar. 3	54	1117
Warner, Ernest P., Chicago, Ill. Electric-lamp post	20,688	Apr. 21	55	291
Watrous, William H., Hartford, Conn. Spoon	21,052	Sept. 22	56	1452
Watson, Henry W., Mitchellsburg, Ky. Window-catch	20,810	June 2	55	1146
Webb, Lida M., Galena, Ill. Spoon	21,193	Dec. 1	57	1135
Weeks, Frederick H., Akron, Ohio. Jug	20,988	Aug. 11	56	666
Weilman, Henry A., Philadelphia, Pa. Thimble	20,590	Mar. 17	54	1422
Weir Stove Company. (See Wilbur, George E., assignor.)				
Wemple, John J. (See Hatch, Jenks, and Wemple.)				
West, Arthur, Manitou Springs, Colo. Spoon, &c	20,960	July 21	56	266
West, John. (See Hazlett and West.)				
West, John, assignor to Barnhart Brothers & Spindler, Chicago, Ill. Font of printing-type	20,750	May 19	55	870
Whitaker, Richard. (See Boatner, James L., assignor.)				
Whitall, James, et al. (See Nicholson, John W., assignor.)				
Whitall, John M., et al. (See Nicholson, John W., assignor.)				
Whitall, Tatum & Co. (See Tatum Charles A., assignor.)				
Whitall, Tatum & Co. (See Underhill, Francis M., assignor.)				
Whitehouse, James H., Brooklyn, N. Y., assignor to Colonial Dames of America, of New York. Badge	20,950	July 21	56	266
Whiting & Co., F. M. (See Maillot, John W., assignor.)				
Whiting, Frank M., North Attleborough, Mass. Spoon	20,826	June 9	55	1280
Whiting Manufacturing Company. (See Glahn and Hull, assignors.)				
Whiting Manufacturing Company. (See Osborne, Charles, assignor.)				
Whitinsville Spinning Ring Co. (See Trowbridge, Charles E., assignor.)				
Whitney, Thomas, Chicago, Ill. Toy	20,706	Apr. 28	55	436
Wientge, Charles C., Providence, R. I. Spoon, &c	20,947	July 14	56	146
Wightman, John, Nottingham, England. Collar or ruffle	20,569	Mar. 10	54	1270
Wilbur, George E., assignor to Weir Stove Company, Taunton, Mass. Heating-stove	20,785	May 26	55	1002
Wilbur, George E., assignor to Weir Stove Company, Taunton, Mass. Cooking-stove	20,800	June 2	55	1146
Wilhelm, Henry T., New York, N. Y. Champagne glass	21,149	Nov. 3	57	550
Wilkinson, George, Providence, R. I., assignor to Holmes & Edwards Silver Company, Bridgeport, Conn. Spoon	20,901	June 30	55	1656
Wilkinson, George, assignor to Gorham Manufacturing Company, Providence, R. I. Spoon	{ 21,039 } { 21,046 }	Sept. 15	56	1340
Wilkinson, William H., assignor to Co-Operative Foundry Company, Rochester, N. Y. Heating-stove	20,946	July 14	56	146
Wilks, Walter L., assignor to Holmes & Edwards Silver Company, Bridgeport, Conn. Spoon	20,510	Feb. 10	54	666
Williams, Robert D., Albany, N. Y. Spoon	20,711	May 5	55	577
Williams, Thomas H., assignor to A. A. Griffing Iron Company, Jersey City, N. J. Radiator	20,780	May 26	55	1002
Willis, Ernest J., New York, N. Y. Bicycle-crank	21,059	Sept. 22	56	1452
Willson, Charles G., Reading, Pa. Spoon	20,900	June 30	55	1656
Willson, Charles G., Reading, Pa. Spoon	21,092	Oct. 6	57	2
Wilson, George W., Lansingburg, N. Y. Brush	20,578	Mar. 10	54	1270
Wilson, Horace M., Cambridge, Mass. Spoon	21,105	Oct. 6	57	2
Wilson, James G., New York, N. Y. Chair	20,575	Mar. 10	54	1270
Wm. Knabe & Co. Manufacturing Company. (See Bigelow, William B., assignor.)				
Wood, Albert N. and F. M., Boston, Mass. Handle for spoons, &c	20,672	Apr. 14	55	144
Wood, Frederic M. (See Wood, Albert N. and F. M.)				
Wood, James J., Fort Wayne, Ind. Frame for electric dynamos	21,270	Dec. 29	57	1725
Wood & Lewis. (See Lewis, Frederic R., assignor.)				
Wood, William E., assignor to P. L. Krider Company, Philadelphia, Pa. Spoon	21,061	Sept. 22	56	1452
Worthley, Frank O., Boston, Mass. Pulley-block	20,693	Apr. 28	55	435
Wright, Charles A., Philadelphia, Pa. Photographic card	21,096	Oct. 6	57	2
Wright, Henry M., Detroit, Mich. Spoon	20,959	July 21	56	266
Young, John, et al. (See Patton, William F., assignor.)				
Zimskind, Louis, New York, N. Y. Bedstead	20,458	Jan. 6	54	2

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

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A. A. Griffing Iron Company, Jersey City, N. J., and Chicago, Ill. Steam or hot-water radiator	20,296	Nov. 3	57	550
A. A. Griffing Iron Company, Jersey City, N. J., and Chicago, Ill. Steam or hot-water radiator	20,297	Nov. 3	57	550
A. Booth Packing Company, Baltimore, Md., and New York, N. Y. Canned fruits and vegetables.	20,142	Sept. 15	56	1340
A. Booth Packing Company, Baltimore, Md., and New York, N. Y. Canned fruits and vegetables.	20,143	Sept. 15	56	1340
A. Booth Packing Company, Baltimore, Md., and New York, N. Y. Canned fruits and vegetables.	20,158	Sept. 22	56	1452
A. Bridgman Company, Orange, N. J., and New York, N. Y. Underwear.	20,380	Nov. 17	57	850
Abbey, William J., Dayton, Ohio. Remedy for diseases of poultry	19,417	May 5	55	577
Abbey, William J., Dayton, Ohio. Remedy for diseases of horses and cattle	19,418	May 5	55	577
Acme Grease and Oil Manufacturing Co., Cleveland, Ohio. Lubricating-oil	20,226	Oct. 13	57	128
Actien-Gesellschaft für Anilin Fabrikation, Berlin, Germany. Chemical preparations for use in photography	20,518	Dec. 29	57	1726
Adams & Sons, Brooklyn, N. Y. Chewing-gum	19,088	Feb. 24	54	964
Air Brush Manufacturing Company, Rockford, Ill. Paint-distributors for use in copying from nature or art	19,986	Aug. 4	56	532
Aktiebolaget Thetis, Stockholm, Sweden. Water-proof cloths and other textile or fibrous materials.	19,883	July 14	56	146
Alabama Fertilizer Co., Montgomery, Ala. Fertilizers	19,743	June 23	55	1534
Alaska Refrigerator Company, Michigan City, Ind. Refrigerators	{ 20,109 } 20,110	Sept. 8	56	1208
Albany Steam Bottling Works, Albany, N. Y. Lager-beer	20,305	Nov. 3	57	551
Albert Dickinson Company, Chicago, Ill. Timothy-seed	20,028	Aug. 18	56	807
Albert Dickinson Company, Chicago, Ill. Timothy-seed	20,029	Aug. 18	56	808
Albert Dickinson Company, Chicago, Ill. Timothy-seed	20,030	Aug. 18	56	808
Alexander, Barney & Chapin, New York, N. Y. Material for insulating against electricity.	19,518	May 19	55	870
Alexander, Barney & Chapin, New York, N. Y. Electrical instruments and appliances, excepting wire.	19,519	May 19	55	870
Allen & Co., Benjamin F., Gloucester, Mass. Boneless fish	19,311	Apr. 14	55	144
Allen & Co., Benjamin F., Gloucester, Mass. Boneless fish	19,312	Apr. 14	55	144
Allen & Co., B. F., Gloucester, Mass. Whole, cut, and boneless fish	20,242	Oct. 20	57	278
Allen, James S., Brockton, Mass. Men's, women's, and children's shoes	19,866	July 14	56	146
Allen & Jonassohn, Providence, R. I. Artificial diamond gems	20,473	Dec. 22	57	1600
Allen, Joseph, Sheffield, England. Cutlery and edge and other tools	20,392	Nov. 24	57	1006
Allen, Joseph, Sheffield, England. Cutlery and edge and other tools	20,393	Nov. 24	57	1006
Allen, Mattie L., Chicago, Ill. Cosmetics, powders, and rouge	19,641	June 2	55	1147
Alvarez, Casimiro, Havana, Cuba. Cigars	18,856	Jan. 20	54	270
Alvarez, Casimiro, Havana, Cuba. Cigars	18,857	Jan. 20	54	270
Alvarez & Co., Justo, Havana, Cuba. Cigars	19,262	Mar. 31	54	1718
Alvarez & Co., Justo, Havana, Cuba. Cigars	19,274	Apr. 7	55	3
Alvarez & Co., Segundo, Havana, Cuba. Cigars	19,362	Apr. 21	55	291
Alvarez & Co., Segundo, Havana, Cuba. Cigars	19,591	May 26	55	1002
Alvarez Disinfectants Company, Washington, D. C., and Chicago, Ill. Disinfectant	19,227	Mar. 24	54	1566
Alvarez, Inocencio, Havana, Cuba. Cigars	19,936	July 28	56	402
Alvarez, Inocencio, Havana, Cuba. Cigars	19,947	July 28	56	402
Alvarez, Manuel, Havana, Cuba. Cigars	19,495	May 12	55	720
Alvarez, Manuel, Havana, Cuba. Cigars	19,496	May 12	55	720
Alvarez, Ynocencio, Havana, Cuba. Cigars	19,585	May 26	55	1003
Amber Bone Manufacturing Company, South Bend, Ind. Substitute for whalebone	19,440	May 5	55	578
Amber Bone Manufacturing Company, South Bend, Ind. Stays for garments	19,441	May 5	55	578
American Brewing Company, New Orleans, La. Beer, ale, and porter.	19,738	June 23	55	1534
American Brewing Company, St. Louis, Mo. Beer	20,306	Nov. 3	57	551
American Cotton Oil Company, Cincinnati, Ohio. Miners' oil	19,753	June 23	55	1534
American Cotton Oil Company, Cincinnati, Ohio. Salad-oil	19,803	June 30	55	1657
American Cotton Oil Company, Cincinnati, Ohio. Cooking-oil	19,807	June 30	55	1657
American Cutlery Company, Chicago, Ill. Table cutlery	18,795	Jan. 6	54	3
American Herbal Medicine Company, New York, N. Y. Vegetable remedies for external and internal use.	18,822	Jan. 13	54	142
American Pure Food Company, Harper's Ferry, W. Va., and Washington, D. C. Baking-powder.	20,105	Sept. 8	56	1208
American Screw Company, Providence, R. I. Metallic screws, bolts, nails, nuts, washers, rivets, and kindred articles.	20,253	Oct. 27	57	416
American Silk Dyeing and Finishing Co., New York, N. Y. Silk dress goods.	19,394	Apr. 21	55	292
American Straw Board Company, Chicago, Ill., and New Portage, Ohio. Boards made of compressed wood and straw pulp	19,734	June 16	55	1404
American Varnish Company, Chicago, Ill., and New York, N. Y. Varnishes	20,262	Oct. 27	57	416
American Whip Company, Westfield, Mass., and New York, N. Y. Whips and whip-lashes.	19,688	June 9	55	1280
Ames & Son, Albany, N. Y. Leather-dressing and metal-polish	19,449	May 12	55	719
Amman Iron Co., Swansea, England. Tin plates	19,446	May 12	55	719
Amman Iron Co., Swansea, England. Tin plates	19,447	May 12	55	719
Amman Iron Co., Swansea, England. Tin plates	19,448	May 12	55	719
Anchor Button Fastener Company, New York, N. Y. Button-fasteners	19,061	Feb. 24	54	963
Anchor & Rock Island Sponge Company, Limited, Philadelphia, Pa. Sponges	20,307	Nov. 3	57	551
Anderson & Co., William, New York, N. Y. Scotch gingham	19,584	May 26	55	1003
Andrae, Philip B., Frankfort-on-the-Main, Germany. New metal in ingots and bars and articles manufactured therefrom.	20,151	Sept. 22	56	1452
Andrews, Reuben H., Washington, D. C. Remedy for rheumatism, neuralgia, and similar ailments	19,201	Mar. 24	54	1566
Andrews, Reuben H., Washington, D. C. Remedy for the cure of stomach, blood, liver, and kidney troubles	19,202	Mar. 24	54	1566
Angell, Jonathan W., San Francisco, Cal. Cosmetic	19,400	Apr. 29	55	436
Anglo American Provision Company, Chicago, Ill. Lard	20,519	Dec. 29	57	1726
Anglo Swiss Condensed Milk Company, New York, N. Y. Condensed milk	19,509	May 19	55	870
Anshutz, Bradberry & Co., Allegheny, Pa. Stoves, ranges, and furnaces	20,345	Nov. 10	57	699
Ansonia Clock Company, Ansonia, Conn., and New York, N. Y. Clocks	19,581	May 26	55	1002
Arbuckle, Guy D., Denver, Colo. Baking-powder	18,829	Jan. 13	54	142

Alphabetical list of registrants of trade-marks—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
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Archer, Daniel W., Council Bluffs, Iowa. Canned fruits and vegetables	19,999	Aug. 11	56	666
Archer, Daniel W., Council Bluffs, Iowa. Canned fruits and vegetables	20,031	Aug. 8	56	808
Archer, Daniel W., Council Bluffs, Iowa. Canned fruits and vegetables	20,432	Dec. 1	57	1136
Arenal & Co., Lucio, Havana, Cuba. Cigars	18,848	Jan. 20	54	269
Arenal & Co., Lucio, Havana, Cuba. Cigars	18,849	Jan. 20	54	269
Arenal & Co., Lucio, Havana, Cuba. Cigars	18,850	Jan. 20	54	270
Arenal & Co., Lucio, Havana, Cuba. Cigars	18,851	Jan. 20	54	270
Arkell & Douglas, New York, N. Y. Refined petroleum	19,060	Feb. 24	54	963
Arkell & Douglas, New York, N. Y. Refined petroleum	19,392	Apr. 21	55	292
Arkell & Douglas, New York, N. Y. Refined petroleum	19,821	June 30	55	1658
Arkell & Douglas, New York, N. Y. Turpentine	20,032	Aug. 18	56	808
Arkell & Douglas, New York, N. Y. Refined petroleum	20,308	Nov. 3	57	551
Arkell & Smiths, Canajoharie, N. Y. Paper bags	19,754	June 23	55	1534
Armour Packing Co., Kansas City, Kans. Butter and butterine	19,174	Mar. 17	54	1422
Armstrong, Cator & Co., Baltimore, Md. Corsets	19,103	Mar. 3	54	1117
Armstrong & Co., James, Baltimore, Md. Laundry-soap	19,671	June 9	55	1280
Arnold Print Works, North Adams, Mass. Printed and dyed fabrics	19,954	Aug. 4	56	532
Arnould & Co., Ch., Rheims, France. Champagne-wine	20,470	Dec. 22	57	1600
Arons, Bernard E., Pittsburg, Pa. Imitation diamond jewelry	19,200	Mar. 24	54	1566
Arthur Chemical Co., New York, N. Y. Hair-tonic	19,758	Feb. 23	55	1534
Assimilene Manufacturing Co., Hillsdale, Mich. Remedy for indigestion	19,039	June 17	54	822
Atteaux & Co., F. E., Boston, Mass. Compound for tanning leather	19,726	June 16	55	1404
Atteaux & Co., F. E., Boston, Mass. Compound for tanning leather	19,727	June 16	55	1404
August Beck & Company, Chicago, Ill. Snuff	18,796	Jan. 6	54	3
August Beck & Company, Chicago, Ill. Manufactured tobacco	18,797	Jan. 6	54	3
August Beck & Company, Chicago, Ill. Smoking-tobacco	18,883	Jan. 20	54	270
Ault & Wiborg Company, Cincinnati, Ohio. Printers' and lithographers' inks	19,933	July 28	56	402
Axt, John B., Newark, N. J. Cigars	19,894	July 21	56	266
Azcano, Sebastian, Havana, Cuba. Cigars	18,964	Feb. 10	54	666
Azcano, Sebastian, Havana, Cuba. Cigars	18,965	Feb. 10	54	666
Azcano y Meana, Sebastian, Havana, Cuba. Cigars	19,263	Mar. 31	54	1718
Azcano y Meana, Sebastian, Havana, Cuba. Cigars	19,273	Apr. 7	55	3
B. F. Avery & Sons, Louisville, Ky. One-horse steel plows	20,243	Oct. 20	57	278
Babendreier, Albert I., Baltimore, Md. Topical remedy	19,253	Mar. 31	54	1717
Bacardi & Co., Santiago de Cuba, Cuba. Rum	20,172	Sept. 29	56	1568
Bacon, Albert S., Manchester, Va. Remedy for piles	19,562	May 26	55	1002
Baden, J. P., Winfield, Kans. Wheat-flour	20,140	Sept. 15	56	1340
Bailey, Edward H., New York, N. Y. Paper carpet-lining	19,993	Aug. 11	56	666
Bailey, George K., Rushville, Ind. Remedies for diseases of horses	19,873	July 14	56	146
Bailey, Henry E., Newark, N. J. Smoked hams and bacon	19,744	June 23	55	1534
Baker, Fred W., and H. Levy, Chicago, Ill. Preparation for use in gonorrhea and gleet	20,094	Sept. 1	56	1064
Baker Heater Company, New York, N. Y. Hot-water, steam, and hot-air furnaces and parts thereof	19,829	June 30	55	1658
Baker & Keen, Fairfield, Ill. Eye-salve, cough cure, remedy for diarrhea, and preparation for the hands and face	20,171	Sept. 29	56	1568
Baker, William E. (See Foster and Baker.)				
Baldauf & Co., George L., Milwaukee, Wis. Insect-destroyers	19,884	July 14	56	146
Baldwin & Company, Limited, Alfred, Panteg, near Newport, England. Tin and terne plates and black plates of Bessemer steel	18,966	Feb. 10	54	666
Baldwin & Company, Limited, Alfred, Panteg, near Newport, England. Tin plates, terne plates, and black plates	19,089	Feb. 24	54	964
Baldwin & Company, Limited, Alfred, Panteg, near Newport, England. Tin plates, terne plates, and black plates of Siemens steel	19,175	Mar. 17	54	1422
Baldwin, E. P. & W., Wilden, England. Sheet-iron and steel, and lead-coated and tin plates, terne plates, and taggers	19,096	Feb. 24	54	964
Baldwin, E. P. & W., Wilden, England. Sheet-iron, tin and terne plates, and lead-coated sheets	19,967	Feb. 10	54	666
Ball Engine Company, Erie, Pa. Automatic cut-off engines	19,019	Feb. 17	54	821
Ballard, Webb & Burnette Hat Company, Dallas, Tex. Soft and stiff felt and cloth hats	19,903	July 21	56	266
Baltimore Chemical Company, Baltimore, Md. Soldering-flux	19,693	June 16	55	1404
Banta, Frank J., Lima, Ohio. Chewing-gum	19,363	Apr. 21	55	291
Barkhausen & Co., Bordeaux, France. Wines	18,830	Jan. 13	54	142
Barnard, William T., Baltimore, Md. Remedy for stomach and bowel complaints, and for salve	19,551	May 19	55	871
Barnes & Co., A. C., Westfield, Mass. Whips	18,897	Jan. 27	54	394
Barnes & Co., A. C., Westfield, Mass. Whips	18,898	Jan. 27	54	394
Barnes & Co., J. C., Whitewright, Tex. Remedy for scrofula and kindred diseases	19,333	Apr. 14	55	144
Barth, Louis, and D. J. Leathers, Grand Rapids, Mich. Antiseptic solution for internal and external use	19,739	June 23	55	1534
Barton, C. V., and E. N. Dimick, Palm Beach, Fla. Guava jelly	19,314	Apr. 14	55	144
Barton, Jeffery, Washington, D. C. Veterinary remedies	20,451	Dec. 8	57	1284
Basford, James L., Boston, Mass. Remedy for the respiratory organs and the blood	19,534	May 19	55	871
Bassett, Albert G., Rochester, N. Y. Remedy for coughs and colds	19,532	May 19	55	871
Batdorf, Jacob C., Grand Rapids, Mich. Remedies for throat and lung diseases	19,808	June 30	55	1657
Batdorf, Jacob C., Grand Rapids, Mich. Remedy for rheumatism and similar diseases	19,809	June 30	55	1657
Batdorf, Jacob C., Grand Rapids, Mich. Certain named remedies	19,810	June 30	55	1657
Batdorf, Jacob C., Grand Rapids, Mich. Remedies for diseases of the kidneys and kindred organs	19,811	June 30	55	1657
Battle & Company Chemists' Corporation, St. Louis, Mo. Anodyne	19,813	June 30	55	1657
Bauch, Friedrich L., Greiz, Germany. Woolen shawls	19,254	Mar. 31	54	1717
Bauer & Co., Philipp, New York, N. Y., and Hamburg, Germany. Dextrine	20,200	Oct. 6	57	2
Baumann's Wittwe, Johann, Amberg, Germany. Enamelled sheet-metal ware	19,095	Feb. 24	54	964
Bavarian Brewing Co., Greenville, N. J. Beer	19,306	Apr. 7	55	4
Bay State Fluid Co., New Bedford, Mass. Embalming-fluid	19,313	Apr. 14	55	144
Beach Manufacturing Company, Hartford, Conn. Underwear and jackets	20,141	Sept. 15	56	1340
Bear Lithia Water Company, New York, N. Y., and Bear Lithia Springs, near Elkton, Va. Mineral water	19,672	June 9	55	1280
Beaufort Tin Plate Company, Morriston, near Swansea, England. Tin-plate in sheets	19,715	June 16	55	1404
Beaufort Tin Plate Company, Morriston, near Swansea, England. Tin-plate in sheets	19,716	June 16	55	1404
Beaumont Company, E. B., New York, N. Y., and Rutherford, N. J. Jellies and confections	19,664	June 9	55	1280
Beck, Addison L., Sharon, Pa. Headache-powders, corn-cure, cough-drops, tooth-cordials, pills, and inhalers	20,450	Dec. 8	57	1284
Beckford, Charles A., Albany, N. Y. Sliced cured meat	18,831	Jan. 13	54	142
Beeman, Marcus M., Syracuse, N. Y. Braids and bindings	19,872	July 14	56	146
Begrow Brothers, Detroit, Mich. Remedy for headache, throat and lung troubles, and for pills	19,535	May 19	55	871
Bell Medicine Co., St. Louis, Mo. Remedy for lung troubles and nervous diseases	19,016	Feb. 17	54	821
Bell & Yore, St. Louis, Mo., and New York, N. Y. Chewing-gum	19,429	May 5	55	578
Beuswanger, Emanuel, Philadelphia, Pa. Bottled lager-beer	18,933	Feb. 3	54	511

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Bentley & Olmsted, Des Moines, Iowa. Ladies' and misses' shoes	20,227	Oct. 13	57	128
Berkshire Cotton Manufacturing Company, Adams, Mass. Bleached cotton goods	20,384	Nov. 17	57	850
Berriman Brothers, Chicago, Ill. Tobacco and cigars	19,364	Apr. 21	55	291
Beshore, Ellsworth S., Pottstown, Pa. Remedy for coughs, colds, and like diseases	19,112	Mar. 3	54	1118
Bess Machine Company, Hamilton, Ohio. Laundry bleaching-fluid	20,359	Nov. 10	57	699
Besson & Co., F., London, England. Wind musical instruments	20,132	Sept. 15	56	1340
Bidwell Cycle Company, George R., New York, N. Y. Safety bicycles	19,886	July 14	56	146
Bierman, Heidelberg & Co., New York, N. Y. Outer clothing and overcoats	19,040	Feb. 17	54	822
Bigelow, Charles. (See Healy and Bigelow.)				
Billington, James H., Philadelphia, Pa. Packing for machinery	18,852	Jan. 20	54	270
Birchgrove Steel Company, Limited, Swansea, England. Tin andterne plates	18,972	Feb. 10	54	666
Birchgrove Steel Company, Limited, Swansea, England. Tin andterne plates	18,986	Feb. 10	54	667
Bird & Co., J. A. & W., Boston, Mass. Wood-alcohol	19,278	Apr. 7	55	3
Bird & Son, F. W., Walpole, Mass. Water-proof paper	20,093	Sept. 1	56	1064
Blackinton, W. & S., Attleborough, Mass., and New York, N. Y. Chains, bracelets, charms, lockets, and similar articles	19,537	May 19	55	871
Blackinton, W. & S., Attleborough, Mass., and New York, N. Y. Plated and solid chains, bracelets, lockets, charms, and similar articles	19,538	May 19	55	871
Blackinton, W. & S., Attleborough, Mass., and New York, N. Y. Solid and plated chains, bracelets, lockets, charms, and like articles	19,539	May 19	55	871
Blackinton, W. & S., Attleborough, Mass., and New York, N. Y. Chains, bracelets, charms, and lockets	19,593	May 26	55	1003
Blackinton, W. & S., Attleborough, Mass., and New York, N. Y. Chains, bracelets, charms, lockets, and similar jewelry	19,594	May 26	55	1003
Blackstone, Benjamin D., Martinsville, Ind. Ointments	18,936	Feb. 3	54	511
Blanc, Charles, Paris, France. Toilet soaps, oils, powder, and similar perfumed toilet preparations	19,563	May 26	55	1002
Blanc, Charles, Paris, France. Soaps, oils, powders, and similar perfumed toilet preparations	19,564	May 26	55	1002
Blanc, Charles, Paris, France. Toilet soaps, oils, tooth-powders, and similar perfumed toilet preparations	19,565	May 26	55	1002
Blanc, Charles, Paris, France. Toilet soaps, oils, powders, and like articles	19,566	May 26	55	1002
Blanc, Charles, Paris, France. Perfumery and perfumed articles for the toilet	20,111	Sept. 8	56	1208
Blanchon, Maxime, Paris, France. Tonic	19,533	May 19	55	871
Bloch & Schwerin, Philadelphia, Pa. Toys	20,355	Nov. 10	57	699
Blood & Co., T. L., St. Paul, Minn. Oil-paints	19,586	May 26	55	1003
Blount, Richard E., Paris, France, and New York, N. Y. Remedy for throat and lung troubles and general debility	19,530	May 19	55	871
Bluck, James E., Pueblo, Colo. Preparation for cleaning and restoring fabrics	20,456	Dec. 8	57	1284
Blume & Co., John H., Walhalla, Tex. Liniments for the cure of rheumatism, neuralgia, gout, and similar ailments	19,097	Feb. 24	54	964
Bodle, James B., Chicago, Ill. Chewing-gum	19,341	Apr. 14	55	144
Bombard, Harry C., Milwaukee, Wis. Stove paste polish	19,113	Mar. 3	54	1118
Bortree Manufacturing Company, Jackson, Mich. Corsets	19,401	Apr. 28	55	436
Boss & Son, C. D., New London, Conn. Biscuits	19,560	May 26	55	1002
Bosshard, William E., Sioux City, Iowa. Soda-water sirup	19,728	June 16	55	1404
Boston Blacking Co., Boston, Mass. Cement for leather and similar material	20,402	Nov. 24	57	1006
Boston Woven Hose Company, Boston, Mass. Belting	19,695	June 16	55	1404
Rostwick, Rieck & Co., New York, N. Y. Champagne	20,411	Dec. 1	57	1136
Botany Worsted Mills, Passaic, N. J. Woven fabrics, including cotton, silk, and wool goods	20,394	Nov. 24	57	1006
Botany Worsted Mills, Passaic, N. J. Woven fabrics, including cotton, wool, and silk goods	20,395	Nov. 24	57	1006
Bondrou, Alexander, Philadelphia, Pa. Liniment	20,522	Dec. 29	57	1726
Bowers, Walter T., Saco, Me. Hats	19,018	Feb. 17	54	821
Bowie & Terhune, Rome, Ga. Cooking and heating stoves and ranges	18,932	Feb. 3	54	511
Bowler Fertilizer Company, Boston, Mass. Meal for live stock	18,823	Jan. 13	54	142
Bowler Fertilizer Company, Boston, Mass. Meal for live stock	19,017	Feb. 17	54	821
Bowles, Joseph W., Normal, Ill. Remedy for kidney and liver diseases	20,261	Oct. 27	57	416
Bowman & Turner, Toledo, Ohio. Washing-machines	19,550	May 19	55	871
Boyce & Co., C. M., Chicago, Ill. Mineral waters	19,948	July 28	56	402
Boyd, Arthur A., Auburn, N. Y. Hames	19,793	June 30	55	1657
Boyden, Edward C., Boston, Mass. Tooth-powder	20,282	Nov. 3	57	550
Bradley Salt Company, Warsaw and New York, N. Y. Dairy and table salt	19,980	Aug. 4	56	532
Bradley Salt Company, Warsaw and New York, N. Y. Salt	20,048	Aug. 18	56	598
Bradley Salt Company, Warsaw and New York, N. Y. Dairy and table and coarse and fine salt	20,067	Aug. 25	56	932
Bradner, Smith & Company, Chicago, Ill. Writing-paper	19,955	Aug. 4	56	532
Bradner, Smith & Company, Chicago, Ill. Writing-paper	19,964	Aug. 4	56	532
Brant Co., J. W., Albion, Mich. Dyes	20,513	Dec. 29	57	1726
Braunschweiger Cementwerke, Brunswick, Germany. Cement	19,874	July 14	56	146
Brennan & White, Brooklyn, N. Y. Boots and shoes	19,694	June 16	55	1404
Brewster, William H., Wyoming, N. Y. Remedy for throat and lung diseases	20,523	Dec. 29	57	1726
Bridgeport Brass Company, Bridgeport, Conn., and New York, N. Y. Brass and copper sheets, tubing, and wire	18,843	Jan. 13	54	142
Bridgman, Adolphus, New York, N. Y. Remedy for certain named diseases	18,798	Jan. 6	54	3
Bridgman, Adolphus, New York, N. Y. Hair curling and crimping implements	19,403	Apr. 28	55	436
Bronson Supply Company, Cleveland, Ohio. Sheet-metal cooking vessels	19,706	June 16	55	1404
Brook Lawn Farm Company, Esopus and New York, N. Y. Unfermented and undistilled products of grapes and other fruits	18,815	Jan. 6	54	3
Brookes & Cooper, Sheffield, England. Machinery and manufactures of iron and steel	19,862	July 7	56	2
Brooklyn Watch Case Company, Brooklyn, N. Y. Watch-cases	19,203	Mar. 24	54	1566
Brower, William H., New York, N. Y. Wheat-flour	20,370	Nov. 17	57	850
Brown & Co., John H., Atchison, Kans. Chicken-cholera powder	19,812	June 30	55	1657
Brown & Co., John H., Atchison, Kans. Chicken-cholera powder	20,114	Sept. 8	56	1208
Brown, Robert A., Lynden, Wash. Surgical appliances	19,334	Apr. 14	55	144
Brown, William R., Boston, Mass. Powders, pills, or liquid preparations for the cure of intemperance	20,386	Nov. 17	57	850
Brownell, Julia M., Burlington, Vt. Preparation for the hair and scalp	20,524	Dec. 29	57	1726
Brugger, John B., Ephratah, Pa. Cigars	20,309	Nov. 3	57	551
Bryant & May, Limited, London, England. Wax matches	19,108	Mar. 3	54	1117
Bryant & May, Limited, London, England. Wax matches	19,137	Mar. 3	54	1118
Bryant & May, Limited, London, England. Wax matches	19,145	Mar. 3	54	1118
Bryant & May, Limited, London, England. Safety-matches	19,178	Mar. 17	54	1422
Bryant & May, Limited, London, England. Wax matches	19,179	Mar. 17	54	1422
Buehner & Co., D., New York, N. Y. Cigars, cigarettes, and smoking and chewing tobacco	19,836	July 7	56	2
Bullock, Abigail H., Philadelphia, Pa. Cosmetic	19,536	May 19	55	871
Bulova, Joseph, New York, N. Y. Ear-rings, ear-knobs, and ear-wires	19,870	July 14	56	146
Bulova, Joseph, New York, N. Y. Ear-rings, finger-rings, and bracelets	19,871	July 14	56	146

Alphabetical list of registrants of trade-marks—Continued.

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Burch, Exie J., Albany, N. Y. Mustard	20,504	Dec. 29	57	1726
Burgoon, Joseph A., Allegheny, Pa. System-renovator, cough-sirup, catarrh-balm, and worm-powders	19,646	June 2	55	1147
Burkhardt, Adam E., Cincinnati, Ohio. Women's outer garments of silk plush resembling seal-skin	18,909	Jan. 27	54	394
Burns, James E., Philadelphia, Pa. Composition coffee	19,104	Mar. 3	54	1117
Burrows, Allen, Sheepshead Bay, N. Y. Liniment for animals	20,125	Sept. 15	56	1340
Bustillo & Brother, V., Havana, Cuba. Cigars	19,264	Mar. 31	54	1718
Bustillo & Brother, V., Havana, Cuba. Cigars	19,267	Mar. 21	54	1718
Bustillo & Brother, V., Havana, Cuba. Cigars	19,268	Mar. 31	54	1718
Bustillo & Brother, V., Havana, Cuba. Cigars	19,269	Mar. 31	54	1718
Bustillo & Brother, V., Havana, Cuba. Cigars	19,270	Mar. 31	54	1718
Bustillo & Brother, V., Havana, Cuba. Cigars	19,271	Mar. 31	54	1718
Bustillo & Brother, V., Havana, Cuba. Cigars	19,272	Mar. 31	54	1718
Bustillo & Brother, V., Havana, Cuba. Cigars	19,275	Apr. 7	55	3
Bustillo & Brother, V., Havana, Cuba. Cigars	19,276	Apr. 7	55	3
Bustillo & Brother, V., Havana, Cuba. Cigars	19,277	Apr. 7	55	3
Butch, Edward, Schenectady, N. Y. Shampoo-cream	20,199	Oct. 6	57	2
Butler & Co., J. & G., Columbus, Ohio. Whisky	20,283	Nov. 3	57	550
Butler & Co., J. & G., Columbus, Ohio. Whisky	20,385	Nov. 17	57	850
Butler & Hannum Brothers, Zanesville, Ohio. Laundry and toilet soap	19,745	June 23	55	1534
Butler, Richards & Balas Frères, New York, N. Y. Braids and tailors' trimmings	20,372	Nov. 17	57	850
Byass & Co., Robert B., Port Talbot, England. Tin andterne plates	19,767	June 30	55	1656
C. C. Washburn's Flouring Mills Company, Minneapolis, Minn. Flour	20,421	Dec. 1	57	1136
C. C. Washburn's Flouring Mills Company, Minneapolis, Minn. Flour	20,422	Dec. 1	57	1136
C. C. Washburn's Flouring Mills Company, Minneapolis, Minn. Flour	20,423	Dec. 1	57	1136
C. C. Washburn's Flouring Mills Company, Minneapolis, Minn. Flour	20,424	Dec. 1	57	1136
Cabot, Godfrey L., Worthington, Pa. Lamp-black	18,899	Jan. 27	54	394
Caboone & Co., George H., Providence, R. I. Artificial gems	19,876	July 14	56	146
Caboone & Co., George H., Providence, R. I. Artificial diamonds	19,924	July 28	56	402
Caledonia Mining and Manufacturing Company, Lancaster, Pa. Powder for polishing metal	19,148	Mar. 10	54	1270
Callender, Benjamin F., Batavia, N. Y. Crayons	20,346	Nov. 10	57	699
Cambria Tinplate Company, Limited, Pontardulais, England. Tin plates	19,683	June 9	55	1280
Cambria Tinplate Company, Limited, Pontardulais, England. Tin plates	19,684	June 9	55	1280
Cañaigne Supply Company, Jersey City, N. J., and New York, N. Y. Tanning extract and its by-products	20,333	Nov. 10	57	698
Candy, Thomas, Columbus, Ohio. Candy tablets	19,293	Apr. 7	55	3
Cannon, Jefferson P., Rurgin, Ky. Liquid shaving compound	19,540	May 19	55	871
Canton Cutlery Company, Canton, Ohio. Pocket cutlery and razors	19,480	May 12	55	720
Cantwell, William W. (See Lutz and Cantwell.)				
Capitol Manufacturing Company, Chicago, Ill. Wrenches, screw-drivers, tack-pullers, and similar tools	19,063	Feb. 24	54	964
Carbutt, John, Philadelphia, Pa. Photographic dry-plates	19,476	May 12	55	720
Carbutt, John, Philadelphia, Pa. Photographic dry-plates	19,610	June 2	55	1146
Carib Guano Company, Baltimore, Md. Fertilizers	20,263	Oct. 27	57	416
Carney Co., Lake Weir, Fla. Oranges	20,525	Dec. 29	57	1726
Carpenter Steel Company, New York, N. Y. Iron, steel, and manufactures thereof	19,049	Feb. 17	54	822
Carter Medicine Company, New York, N. Y. Pills	19,608	June 2	55	1146
Carter Medicine Company, New York, N. Y. Pills	19,609	June 2	55	1146
Carter Medicine Company, New York, N. Y. Pills	19,729	June 16	55	1404
Carter Medicine Company, New York, N. Y. Plasters	19,875	July 14	56	146
Carter Medicine Company, New York, N. Y. Pills	19,938	July 28	56	402
Carter Medicine Company, New York, N. Y. Pills	20,383	Nov. 17	57	850
Carver, Benjamin F., New York, N. Y. Toilet deodorant	18,778	Jan. 6	53	2
Cary-Ogden Company, Chicago, Ill. Carriage-paint	19,159	Mar. 10	54	1270
Cassard, Reuben R., and G. W. Neal, Baltimore, Md. Whitening compound for use upon equipments	19,987	Aug. 4	56	532
Castaing, Amédée, New York, N. Y. Liquid shoe and barness blacking	18,780	Jan. 6	54	2
Caston, Bell & Co., San Francisco, Cal. Wool prepared for the market	19,452	May 12	55	719
Celorio & Co., B., Havana, Cuba. Cigars	18,858	Jan. 20	54	270
Celorio & Co., B., Havana, Cuba. Cigars	18,859	Jan. 20	54	270
Celorio & Co., B., Havana, Cuba. Cigars	20,173	Sept. 29	56	1568
Ceylon Planters Tea Company, New York, N. Y. Tea	19,353	Apr. 14	55	145
Ceylon Planters Tea Company, New York, N. Y. Tea	19,481	May 12	55	720
Ceylon Planters Tea Company, New York, N. Y. Tea	19,482	May 12	55	720
Ceylon Planters Tea Company, New York, N. Y. Tea	19,483	May 12	55	720
Chadwick & Bro., James, Eagley Mills, county of Lancaster, England, and New York, N. Y. Spool-thread	19,290	Apr. 7	55	3
Chadwick & Bro., James, Eagley Mills, county of Lancaster, England, and New York, N. Y. Spool-thread	19,291	Apr. 7	55	3
Challandes, Marc, Montpellier, France. Antiseptic powder	19,814	June 30	55	1657
Chalmers-Spence Company, New York, N. Y., Philadelphia, Pa., and Chicago, Ill. Felting made from cattle-hair	19,629	June 2	55	1147
Chandler & Rudd Company, Cleveland, Ohio. Cheese	20,511	Dec. 29	57	1726
Chao, Alvarez & Co., Havana, Cuba. Cigars	19,497	May 12	55	720
Chao, Alvarez & Co., Havana, Cuba. Cigars	19,498	May 12	55	720
Chapman & Meehan, New York, N. Y. Prepared soups	18,799	Jan. 6	54	3
Charles Macintosh & Company, Limited, Manchester and London, England. Rubber goods	18,788	Jan. 6	54	3
Chase & Company Corporation, Boston, Mass. Confection-lozenges	19,030	Feb. 17	54	822
Chase & Company Corporation, Boston, Mass. Small sugared sticks of candy	20,033	Aug. 18	56	808
Chase & Company Corporation, Boston, Mass. Pipe candy	20,034	Aug. 18	56	808
Chase & Company Corporation, Boston, Mass. Pipe candy	20,144	Sept. 15	56	1340
Chase & Company Corporation, Boston, Mass. Small sugared sticks of candy	20,178	Sept. 29	56	1568
Cheatham, Peter W., Norfolk, Va. Pile-salve	20,217	Oct. 13	57	128
Chemische Fabrik auf Actien, (vormals E. Schering,) Berlin, Germany. Certain named chemicals	18,825	Jan. 13	54	142
Chemische Fabrik auf Aktien, (vorm. E. Schering,) Berlin, Germany. Ammonia preparations for medical purposes	19,064	Feb. 24	54	964
Chemische Fabrik auf Actien, (vormals E. Schering,) Berlin, Germany. Ammonia derivatives	19,855	July 7	56	2
Chemische Fabrik auf Actien, (vormals E. Schering,) Berlin, Germany. Glycoll derivatives	19,856	July 7	56	2
Chester Paper Company, Huntington, Mass. Writing-paper	20,041	Aug. 18	56	808
Chicago Consolidated Bottling Company, Chicago, Ill. Soda-water and medicated drinks	19,673	June 9	55	1280
Childs, John L., Floral Park, N. Y. Seeds, bulbs, plants, trees, and shrubbery	19,255	Mar. 31	54	1717
Chiles & Co., Chicago, Ill. Liquid toilet preparation for the skin	20,412	Dec. 1	57	1136
China and Japan Trading Company, Limited, New York, N. Y. Cotton and woolen fabrics	19,643	June 2	55	1147

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Chipman, William A., New York, N. Y. Paper bags	19,295	Apr. 7	55	3
Christian Moerlein Brewing Company, Cincinnati, Ohio. Beer	19,976	Aug. 4	56	532
Christman, Thomas F., Greenville, N. C. Ointment	19,114	Mar. 3	54	1118
Clark & Alden, North Woburn, Mass. Artificial coffee	19,329	Apr. 14	55	144
Clark & Stuyvesant Grocery Company, St. Louis, Mo. Sugar-cured meats	20,323	Nov. 3	57	551
Clark Thread Company, Newark, N. J. Crochet-cotton	20,049	Aug. 18	56	808
Clark Thread Company, Newark, N. J. Crochet-cotton	20,050	Aug. 18	56	808
Clark Thread Company, Newark, N. J. Darning-cotton	20,051	Aug. 18	56	808
Clark Thread Company, Newark, N. J. Darning-cotton	20,052	Aug. 18	56	808
Clark Thread Company, Newark, N. J. Spool-cotton	20,053	Aug. 18	56	808
Clark Thread Company, Newark, N. J. Crochet-cotton	20,054	Aug. 18	56	808
Clark Thread Company, Newark, N. J. Darning-cotton	20,055	Aug. 18	56	808
Clark Thread Company, Newark, N. J. Cotton thread	20,528	Dec. 29	57	1726
Clark Thread Company, Newark, N. J. Cotton thread	20,529	Dec. 29	57	1726
Clark Thread Company, Newark, N. J. Cotton thread	20,530	Dec. 29	57	1726
Clarke & Courts, Galveston, Tex. Printing and writing paper	18,779	Jan. 6	54	2
Clauberg, Frederick A., New York, N. Y. Razors, stropps, and shears	19,654	June 2	55	1147
Clauber, Frederick A., New York, N. Y. Knives, scissors, razors, and stropps	19,655	June 2	55	1147
Cleaver & Sons, F. S., London, England. Toilet-soap, perfumery, cosmetics, and similar articles	19,642	June 2	55	1147
Clements, Frederick M., Sydney, New South Wales, Melbourne, Victoria, and Liverpool, England. Tonics	19,766	June 23	55	1534
Climax Baking Powder Co., Indianapolis, Ind. Baking-powder	19,819	June 30	55	1658
Clinton, Joseph M., Detroit, Mich. Collars, cuffs, and shirt-fronts	20,004	Aug. 11	56	666
Coates & Purbeck, New York, N. Y. Mineral paint	19,904	July 21	56	266
Cobb, John A., Lehigh, Indian Ter. Medicines for the cure of blood diseases, blood-poison, scrofula, eczema, &c.	19,981	Aug. 4	56	532
Cobb, Marvin W., Fredonia, N. Y. Anæsthetic	20,310	Nov. 3	57	551
Cochran, Frederic B., New York, N. Y. Structures or processes for freezing fluids	18,884	Jan. 20	54	270
Coddington & Co., T. B., New York, N. Y. Tin plates	19,450	May 12	55	719
Coddington & Co., T. B., New York, N. Y. Tin plates	19,451	May 12	55	719
Coffin, William E., Brooklyn, N. Y. Hair-tonic	19,854	July 7	56	2
Cohen, Hermann, New York, N. Y. Oils used in compounding beverages and liquors	19,747	June 23	55	1534
Colgate & Co., New York, N. Y. Toilet and laundry soap	18,951	Feb. 10	54	666
Colgate & Co., New York, N. Y. Perfumes and perfumed soaps and toilet preparations	20,095	Sept. 1	56	1064
Collins & Fairbanks, Boston, Mass. Head-wear	20,496	Dec. 22	57	1600
Colombi & Co., J. B., Flatbush, N. Y. Remedies for diseases of women	19,746	June 23	55	1534
Columbia Dome Cigar Manufacturing Company, St. Louis, Mo. Cigars and cigarettes	20,236	Oct. 20	57	278
Columbia Hosiery Company, New York, N. Y. Hosiery	20,021	Aug. 11	56	666
Comfort Powder Company, Hartford, Conn. Powder for the toilet, nursery, and similar purposes	19,977	Aug. 4	56	532
Compagnie Des Produits Kemmerich, Antwerp, Belgium. Extracts of meat	20,022	Aug. 11	56	666
Compagnie Des Produits Kemmerich, Antwerp, Belgium. Extracts of meat	20,023	Aug. 11	56	666
Compagnie La Ferme, Dresden, Germany. Cigarettes	19,939	July 28	56	402
Compton, William E., Redditch, England. Needles and fish-hooks	19,062	Feb. 24	54	963
Condensed Coffee Company, Jersey City, N. J., and New York, N. Y. Prepared coffee-extract	19,755	June 23	55	1534
Conn, Charles G., Elkhart, Ind. Musical instruments	19,939	Feb. 3	54	511
Conrad, Jacob, Philadelphia, Pa. Lager-beer	19,464	May 12	55	719
Consolidated Safety Pin Co., New York, N. Y. Safety-pins	18,832	Jan. 13	54	142
Contrexville Manufacturing Company, Manville, R. I., and New York, N. Y. Plushes	19,065	Feb. 24	54	964
Contrexville Manufacturing Company, Manville, R. I., and New York, N. Y. Plushes	19,820	June 30	55	1658
Copper Miners Tinplate Company, Limited, Cwmavon, England. Tin plates and terne plates	19,245	Mar. 31	54	1717
Copper Miners Tinplate Company, Limited, Cwmavon, England. Tin plates	19,246	Mar. 31	54	1717
Corby, Henry, Belleville, Canada. Whisky	18,835	Jan. 13	54	142
Corliss Bros. & Co., Troy, N. Y. Shirts and waists for women and children	19,612	June 2	55	1146
Cornelius Callaban Company, Boston, Mass. Textile fire-hose	19,292	Apr. 7	55	3
Cortina & Gomez, Havana, Cuba. Cigars	18,853	Jan. 20	54	270
Cortina & Gomez, Havana, Cuba. Cigars	18,854	Jan. 20	54	270
Cortina & Gomez, Havana, Cuba. Cigars	18,855	Jan. 20	54	270
Cosman, Mathias J., Denison, Iowa. Remedy for rheumatism	19,937	July 28	56	402
Costello & Co., Rochester, N. Y. Candies	18,836	Jan. 13	54	142
Cox, Joseph P., Hayward, Wis. Liniment	20,115	Sept. 8	56	1208
Crager & Co., Ed., New York, N. Y. Buttons and braids	20,056	Aug. 18	56	808
Crager & Co., Ed., New York, N. Y. Braids and buttons	20,057	Aug. 18	56	808
Crager & Co., Ed., New York, N. Y. Buttons, braids, buckles, galloons, and bindings	20,089	Sept. 1	56	1064
Cramer, Gustav, St. Louis, Mo. Photographic plates or films	20,185	Oct. 6	57	2
Cramer, Gustav, St. Louis, Mo. Photographic plates or films	20,186	Oct. 6	57	2
Cramer, Gustav, St. Louis, Mo. Photographic plates and films	20,254	Oct. 27	57	416
Cramp & Co., B. H., Philadelphia, Pa. Manganese bronze	18,824	Jan. 13	54	142
Cranston, John B., Milford Centre, Ohio. Dry hop-yeast	19,682	June 9	55	1280
Creedmore Cartridge Company, New Portage, Ohio. Cartridges for fire-arms	18,777	Jan. 6	54	2
Creedmore Cartridge Company, New Portage, Ohio. Cartridge shells and wads	19,058	Feb. 17	54	822
Crescent Manufacturing Company, Seattle, Wash. Spices	20,235	Oct. 20	57	278
Crescent Manufacturing Company, Seattle, Wash. Flavoring-extracts	20,247	Oct. 20	57	278
Crescent Rheumatic Medicine Co., Saginaw, Mich. Remedy for rheumatism	20,258	Oct. 27	57	416
Crescent Watch Case Company, Newark, N. J. Watch-cases	20,331	Nov. 10	57	698
Crescent Watch Case Company, Newark, N. J. Watch-cases	20,332	Nov. 10	57	698
Crescent Watch Case Company, Newark, N. J. Watch-cases	20,381	Nov. 17	57	850
Crocker, Loring, Boston, Mass. Fluid or paste extract of meat	20,427	Dec. 1	57	1136
Crooks & Co., Rob., Liverpool, England, and New York, N. Y. Tin and terne plates	18,833	Jan. 13	54	142
Crooks & Co., Rob., Liverpool, England, and New York, N. Y. Tin and terne plates	18,834	Jan. 13	54	142
Crystal Rice Milling Company, Marion, Ind. Prepared rice	19,241	Mar. 31	54	1717
Cunningham, Robert N., New York, N. Y. Stain and grease eradicator	19,611	June 2	55	1146
Cura Regia Medicine Co., New Orleans, La. Resolvent and tonic	19,510	May 19	55	870
Cura Regia Medicine Co., New Orleans, La. Plasters, pills, and salve	19,511	May 19	55	870
Cura Regia Medicine Co., New Orleans, La. Soap	19,919	July 21	56	266
Curtis, Samuel P., Boston, Mass. Knit goods, such as hosiery, underwear, and athletic goods	19,719	June 16	55	1404
Curtis & Wilkinson, North Attleborough, Mass. Gold, silver, and plated jewelry, and flat and table ware	20,312	Nov. 3	57	551
Cwmfelin Tinplate Company, Cwmfelin and Swansea, England. Tin plates	19,014	Feb. 10	54	667
Cwmfelin Tinplate Company, Cwmfelin and Swansea, England. Tin-plate in sheets	19,015	Feb. 10	54	667
D. F. Coles Drug and Manufacturing Company, Rahway, N. J. Bitters, liniment, cough-balsam, sarsaparilla, chilblains and corn remedy, and hair-tonic	20,311	Nov. 3	57	551
D. S. Morgan & Company, Brockport, N. Y. Harrows and pulverizers	19,074	Feb. 24	54	964
Da Mond, Kate M., Terre Haute, Ind. Hair-tonic and curling-fluid	20,434	Dec. 1	57	1136
Dalrymple, Warner & Co., Albany, N. Y. Remedy for catarrh and hay fever	18,976	Feb. 10	54	666

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Damschinsky, Carl, New York, N. Y. Hair-dye	20,343	Nov. 10	57	699
Damschinsky, Carl, New York, N. Y. Hair-restorative	20,356	Nov. 10	57	699
Dana & Co., William B., New York, N. Y. Newspapers	19,649	June 2	55	1147
Davenport, George F., Boston, Mass. Cigars and tobacco	19,067	Feb. 24	54	964
Davies & Sons, E., Port Talbot, England. Bessemer-steel plates	19,298	Apr. 7	55	4
Davis, Clarence E., and A. Schindele, St. Joseph, Mo. Cough-drops	20,440	Dec. 8	57	1284
Davis & Co., C. E., Kansas City, Mo. Remedy for coughs	19,335	Apr. 14	55	144
Davis & Co., Curtis, Cambridge, Mass. Toilet soap-powder	19,500	May 12	55	720
Davis & Co., H. C., Jr., Norfolk, Va. Soap for the toilet and laundry	20,207	Oct. 13	57	128
Davis & Co., H. C., Jr., Norfolk, Va. Soap for the toilet and laundry	20,208	Oct. 13	57	128
Davis, Leroy W., Norfolk, Va. Cigars	19,499	May 12	55	720
Davis & Son, Perry, Providence, R. I. Medical compound for external and internal use	19,988	Aug. 4	56	532
Dawes Manufacturing Company, Pittsburg, Pa. Glass signs and labels for druggists' use	19,777	June 30	55	1656
De Camp, George, Terre Haute, Ind. Baking-powder	20,127	Sept. 15	56	1340
De Lissa, Alpha S., Philadelphia, Pa. Whisky	20,414	Dec. 1	57	1136
De Witt, Elden C., Chicago, Ill. Liniment	19,541	May 19	55	871
Deadwood Flouring Mill Company, Deadwood, S. D., and Chicago, Ill. Wheat-flour	19,940	July 28	56	402
Delmonico's, The Firm of, New York, N. Y. Cigars	20,403	Nov. 21	57	1006
Demorest Fashion and Sewing Machine Company, Williamsport, Pa. Sewing-machines	19,776	June 30	55	1656
Demuth & Co., William, New York, N. Y. Cigarette-paper	18,900	Jau. 27	54	394
Demuth & Co., William, New York, N. Y. Pipes, tobacco and snuff boxes, match-safes, cigar and cigarette holders, cigar-cases, and tobacco-pouches	19,066	Feb. 24	54	964
Denike, Mary W., New York, N. Y. Hair-tonic	19,419	May 5	55	578
Denny, Poor & Co., New York, N. Y. Printed cotton goods	19,395	Apr. 21	55	292
Densham & Sons, London, England. Tea, coffee, and cocoa	20,413	Dec. 1	57	1136
Derby, Emma A., Boston, Mass. Remedy for constipation	19,204	Mar. 24	54	1566
Derhake, Bernard, Quincy, Ill. Axle-grease	19,139	Mar. 3	54	1118
Detroit Electric Soap Company, Detroit, Mich. Laundry-soap	20,188	Oct. 6	57	2
Deutsch, Sigmund, Philadelphia, Pa. Men's shirts	19,052	Feb. 17	54	822
Deutsch, Sigmund, Philadelphia, Pa. Shirts	19,521	May 19	55	870
Devereaux & Meserve, Boston, Mass. Whisky	20,457	Dec. 8	57	1284
Diamond Compound Co., Harrison, N. J. Compound for removing boiler-scales	19,105	Mar. 3	54	1117
Diamond & Onyx, Philadelphia, Pa. Inks and bluing	20,334	Nov. 10	57	698
Diamond State Iron Company, Wilmington, Del. Manufactures of iron and steel	20,284	Nov. 3	57	550
Diamond White Grape Company, Rochester and Brighton, N. Y. Grape-vines	18,948	Feb. 3	54	511
Dickinson Bros & King, Chicago, Ill. Cement	19,020	Feb. 17	54	821
Dickinson, Thomas V., Buffalo, N. Y. Silver, flat, and table ware	19,905	July 21	56	266
Difenderfer, James W., Philadelphia, Pa. Carpet-chain	20,228	Oct. 13	57	128
Difenderfer, James W., Philadelphia, Pa. Carpet-warps	20,229	Oct. 13	57	128
Dimick, E. N. (See Barten and Dimick.)				
Dirksen, Luise, Brooklyn, N. Y. Liquid detergent compound	20,271	Oct. 27	57	416
Dithridge & Co., Pittsburg, Pa. Glass lamps	20,497	Dec. 22	57	1600
Dizer & Co., M. C., Boston, Mass. Boots and shoes	20,037	Aug. 18	56	808
Dock & Robbins, Newark, N. J. Troches for throat diseases	19,542	May 19	55	871
Dodge Manufacturing Company, Mishawaka, Ind. Belt-pulleys	19,665	June 9	55	1280
Dodge, Walter L., San Diego, Cal. Tooth-ache drops, liniment, and cough-sirap	20,187	Oct. 6	57	2
Doniphan & Co., St. Joseph, Mo. Candies	20,373	Nov. 17	57	850
Donisthorpe, Rebecca S. (See Whitaker and Donisthorpe.)				
Dort, Elizabeth, Buffalo, N. Y. Nerve-elixir	20,498	Dec. 22	57	1600
Dougan & Co., John, New York, N. Y. Cotton pile fabrics, velveteens, and plushes	20,145	Sept. 15	56	1340
Doussan French Perfumery Company New Orleans, La. Petroleum unguent, jelly, or oil for chapped face and hands	19,342	Apr. 14	55	145
Dowagiac Manufacturing Company, Dowagiac, Mich. Seeders and grain-drills	20,447	Dec. 8	57	1284
Dowagiac Manufacturing Company, Dowagiac, Mich. Seeders and grain-drills	20,474	Dec. 22	57	1600
Dowd, Henry E., Toledo, Ohio. Medicinal beverage	19,066	Aug. 4	56	532
Dr. Russell Medicine Company, Chicago, Ill. Family remedies for various diseases	20,121	Sept. 8	56	1208
Dreis, Joseph, St. Joseph, Mo. Remedies for diseases of horses, swine, and poultry	20,005	Aug. 11	56	666
Dudley, Plimmon H., New York, N. Y. Railway-rails, fish-plates, bolts and spikes, rail-chairs, and ties	19,520	May 19	55	870
Dullam's German Medicine Co., Flint, Mich. Pills	20,238	Oct. 20	57	278
Dumville & Co., Lockport, N. Y. Men's shirts	19,522	May 19	55	871
Dumbar, Frank M., Passaic, N. J. Aerated non-spirituous beverages	20,486	Dec. 22	57	1600
Dumbar, Hobart & Co., Whitman, Mass. Shoe-tacks	19,315	Apr. 14	55	144
Dunham, Buckley & Co., New York, N. Y. Underwear and hosiery	19,138	Mar. 3	54	1118
Dunn, James H., Binghamton, N. Y. Remedy for fits	20,408	Nov. 24	57	1006
Durgin, William B., Concord, N. H. Gold, silver, and plated table-ware, jewelry, and similar articles	20,218	Oct. 13	57	128
Dutton, Harry, Boston, Mass. Oil-cans	19,818	June 30	55	1658
Duty, Randolph B., Stmsborough, La. Hygienic medical appliances	20,189	Oct. 6	57	2
Dyer, James B., Brooklyn, N. Y. Stove-polish	19,630	June 2	55	1147
Dzalyuski, John, Jacksonville, Fla. Cigars	18,860	Jan. 20	54	270
E. J. Brooks & Company, New York, N. Y., and Newark, N. J. Steel stamps for numbering, lettering, or marking	20,371	Nov. 17	57	850
E. P. Dresser Soap Company, Kansas City, Mo. Toilet, bath, and laundry soap	20,407	Nov. 24	57	1006
E. S. Greeley & Company, New York, N. Y. Splicing-tape for insulating purposes	20,438	Dec. 1	57	1136
Eagle Bicycle Manufacturing Company, Stamford, Conn. Bicycles, tricycles, and parts thereof	19,220	Mar. 24	54	1566
Eagle Pencil Company, New York, N. Y. Lead-pencils	19,410	Apr. 28	55	436
Eagle Pencil Company, New York, N. Y. Lead-pencils	19,427	May 5	55	578
Earl Fruit Company, Los Angeles and Sacramento, Cal., Chicago, Ill., and Minneapolis, Minn. Citrus and deciduous fruits	20,006	Aug. 11	56	666
Eberhardt & Puhl, New York, N. Y. Hat-dye	19,543	May 19	55	871
Eckhart & Swan, Chicago, Ill. Flour	19,748	June 23	55	1534
Eddystone Manufacturing Company, Limited, Philadelphia, Pa. Cotton fabrics	19,211	Mar. 24	54	1566
Edel Bros., Richmond, Va. Whisky	19,166	Mar. 10	54	1270
Edmund Boughton & Company, Limited, Pontardulais, England. Tin plates	19,831	June 30	55	1658
Edmund Boughton & Company, Limited, Pontardulais, England. Tin plates	19,832	June 30	55	1658
Edmund Boughton & Company, Limited, Pontardulais, England. Tin plates	19,833	June 30	55	1658
Edmund Boughton & Company, Limited, Pontardulais, England. Tin plates	19,834	June 30	55	1658
Edwards & Co., Daniel, Swansea, England. Tin-plate in sheets	19,992	Feb. 10	54	667
Edwards & Co., Daniel, Swansea, England. Tin-plate in sheets	19,004	Feb. 10	54	667
Edwards & Co., Daniel, Swansea, England. Tin-plate in sheets	19,005	Feb. 10	54	667
Edwards & Co., Daniel, Swansea, England. Tin-plate in sheets	19,006	Feb. 10	54	667
Edwards & Co., Daniel, Swansea, England. Tin-plate in sheets	19,007	Feb. 10	54	667

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Edwards & Co., Daniel, Swansea, England. Tin-plate in sheets.....	19,008	Feb. 10	54	667
Edwards, Julia, Montreal, Canada. Remedy for dropsy.....	18,826	Jan. 13	54	142
Eighmie, George D., New York, N. Y. Men's shirts, collars, and cuffs.....	19,182	Mar. 17	54	1422
Eldred, William H., Chicago, Ill. Liniment.....	19,815	June 30	55	1658
Electrical Supply Company, Chicago, Ill. Metallic wire for use in electrical work.....	19,194	Mar. 17	54	1422
Electrical Supply Company, Chicago, Ill. Devices and apparatuses for generating, transmitting, controlling, measuring, or applying electricity.....	20,017	Aug. 11	56	666
Electrical Supply Company, Chicago, Ill. Devices and apparatuses for generating, transmitting, controlling, measuring, or applying electricity.....	20,018	Aug. 11	56	666
Electrical Supply Company, Chicago, Ill. Devices and apparatuses for generating, controlling, measuring, or applying electricity.....	20,066	Aug. 25	56	932
Electrical Supply Company, Chicago, Ill. Metallic brackets for use in electrical work.....	20,484	Dec. 32	57	1600
Elliott & Son, R. H., Pontiac, Mich. Embalming fluid.....	18,927	Feb. 3	54	510
Ellis & Co., John, New York, N. Y. Illuminating-oil.....	19,068	Feb. 24	54	964
Ellis & Co., John, New York, N. Y. Illuminating-oil.....	19,942	July 28	56	402
Embrey & Talbott, Chattanooga, Tenn. Flavoring-syrups for beverages.....	19,925	July 28	56	402
Enas, William B., Bristol, R. I. Internal and external remedy for diseases of the stomach, &c.....	20,313	Nov. 3	57	551
Enoree Manufacturing Company, Enoree, S. C. Sheeting, shirting, and drilling.....	19,595	May 26	55	1003
Enterprise Soap Works, Nashville, Tenn. Toilet and laundry soap.....	20,433	Dec. 1	57	1136
Erdman, Daniel H., Camden, N. J. Portable heaters.....	19,115	Mar. 3	54	1118
Ernst, Henry P., Los Angeles, Cal. Certain named remedies.....	19,656	June 2	55	1147
Ethridge & Co., A., Rome, N. Y. Japan tea.....	18,885	Jan. 20	54	270
Ethridge & Co., A., Rome, N. Y. Cheese.....	20,183	Oct. 6	57	2
Ettel, John W., New York, N. Y. Fancy cakes.....	18,800	Jan. 6	54	3
Eureka Fire Hose Company, New York, N. Y. Fire-hose made of woven and knitted fabric.....	19,167	Mar. 10	54	1270
Evans, David, Boston, Mass. Remedy for the cure of catarrhal diseases.....	19,967	Aug. 4	56	532
Evans, Lescher & Webb, London, England. Medical preparation of sandal-wood and copaiba.....	18,914	Feb. 3	54	510
Eveleigh, Robert E., Bloomfield, Ind. Powder for hog and chicken cholera.....	19,895	July 21	56	266
Excelsior Springs Company, Kansas City, Mo. Soap.....	19,567	May 26	55	1002
Excelsior Springs Company, Excelsior Springs and Kansas City, Mo. Mineral water.....	20,060	Aug. 18	56	808
Eyquem, Alexandre, Bordeaux, France, and New York, N. Y. Canned and preserved foods and table delicacies.....	18,781	Jan. 6	54	2
Eyre & Spottiswoode, London, England. Bibles, testaments, and devotional books.....	19,512	May 19	55	870
Ezekiel, Ezekiel M., Springfield, Mass. Hard-oil finish.....	19,941	July 28	56	402
F. C. Knowles & Company, Jersey City, N. J., and New York, N. Y. Paints.....	19,485	May 12	55	720
Faber, Johann, Nuremberg, Germany. Pencils, pen-holders, and cases, erasers, leads, slates, chalks, and similar stationery.....	19,098	Feb. 24	54	964
Fahrney, Peter, Chicago, Ill. Blood-purifier.....	19,316	Apr. 14	55	144
Fahrney, Peter, Chicago, Ill. Blood-purifier.....	19,317	Apr. 14	55	144
Fairchild, Frederick S., Bridgeport, Conn. Toilet washing-powder.....	19,420	May 5	55	578
Fairwood Tin-Plate Company, Limited, Gower on, England. Tin plates.....	19,917	July 21	56	266
Fairwood Tin-Plate Company, Limited, Gower on, England. Tin plates.....	19,920	July 21	56	266
Famous Shoe and Clothing Company, St. Louis, Mo. Men's and boys' outer garments.....	20,096	Sept. 1	56	1064
Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Dye-stuffs.....	20,487	Dec. 22	57	1600
Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Dye-stuffs.....	20,488	Dec. 22	57	1600
Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Dye-stuffs.....	20,489	Dec. 22	57	1600
Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Dye-stuffs.....	20,490	Dec. 22	57	1600
Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Dye-stuffs.....	20,491	Dec. 22	57	1600
Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Dye-stuffs.....	20,492	Dec. 22	57	1600
Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Germany. Dye-stuffs.....	20,493	Dec. 22	57	1600
Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Basic gallate of bismuth.....	20,156	Sept. 22	56	1452
Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Remedy for fevers, tuberculosis, abscesses, and rheumatism.....	20,452	Dec. 8	57	1284
Farnum & Co., John, Philadelphia, Pa. Tickings.....	20,007	Aug. 11	56	666
Fassett & Co., Henry S., Washington, D. C. Black paint.....	19,243	Mar. 31	54	1717
Fay, Jennie T., New York, N. Y. Hair-restorative.....	19,342	Mar. 31	54	1717
Fayerweather & Ladew, New York, N. Y. Leather belting.....	20,441	Dec. 8	57	1284
Feil & Co., S. R., Cleveland, Ohio. Dry mixture of herbs for curing diseases arising from disordered liver and kidneys.....	20,008	Aug. 11	56	666
Feldeneimer, Albert, Portland, Oreg. Spoons, forks, and other flat ware.....	19,404	Apr. 23	55	436
Fernandez, Corral & Co., Havana, Cuba. Cigars.....	19,675	June 9	55	1280
Fernandez, Corral & Co., Havana, Cuba. Cigars.....	19,676	June 9	55	1280
Fernandez, Corral & Co., Havana, Cuba. Cigars.....	19,697	June 16	55	1404
Fernandez, Corral & Co., Havana, Cuba. Cigars.....	19,698	June 16	55	1404
Finn & Sons, H., Syracuse, N. Y. Washing and toilet soaps.....	19,768	June 30	55	1656
Firm of R. M. Hunter, Philadelphia, Pa. Face-powder and balm for chapped hands.....	20,097	Sept. 1	56	1064
Firm of R. M. Hunter, Philadelphia, Pa. Face-powder.....	20,182	Sept. 29	56	1568
Fischer, George, Brooklyn, N. Y. Laundry-starch.....	20,239	Oct. 20	57	278
Fisher, Charles, Louisville, Ky. Feather dusters.....	19,090	Feb. 24	54	964
Fisher, Hart C., Chicago, Ill. Tea.....	20,501	Dec. 29	57	1725
Fisher Mason Chemical Co., Baltimore, Md. Line of proprietary medicines and a remedy for rheumatism.....	20,342	Nov. 10	57	698
Fithian, Josiah H., New York, N. Y. Dress goods.....	18,886	Jan. 20	54	270
Fleer & Co., Frank H., Philadelphia, Pa. Chewing-gum.....	20,285	Nov. 3	57	550
Fleischmann, Louis, New York, N. Y. Bread.....	19,354	Apr. 14	55	145
Fleming, George S., Pittsburg, Pa. Bitters.....	18,915	Feb. 3	54	510
Fleming, George S., Pittsburg, Pa. Whisky.....	18,952	Feb. 10	54	666
Fletcher & Son, Robert, Stoneclough, England. Tissue-paper.....	20,232	Oct. 20	57	278
Florence Manufacturing Company, Florence, Mass., New York, N. Y., and Chicago, Ill. Tooth-brushes.....	20,086	Aug. 25	56	932
Florists International Telegraph Delivery Association, Milwaukee, Wis. Cut and potted flowers, seeds, bulbs, and analogous products.....	20,425	Dec. 1	57	1136
Foerderer, Robert H., Philadelphia, Pa. Kid, goat, and similar light-weight leathers.....	20,219	Oct. 13	57	128
Foerster & Co., William, New York, N. Y., and Hamburg, Germany. Shades for lamps and gas-fixtures.....	20,190	Oct. 6	57	2
Follmer, Clogg & Co., Philadelphia, Pa., and New York, N. Y. Tight-folding umbrellas and parasols.....	19,106	Mar. 3	54	1117
Foss, Lewis T., Danvers, Mass. Aerated spring-water and ginger-ale.....	19,731	June 16	55	1404
Foster, Edward H., and W. E. Baker, Concord, N. H. Remedy for nervous disorders.....	20,272	Oct. 27	57	416
Foster, Joseph S., Salem, Mass. Portable game.....	18,801	Jan. 6	54	3
Freeman, Frank A., Philadelphia, Pa. Men's and women's garters.....	19,968	Aug. 4	56	532
Freiberg, J. & A., Cincinnati, Ohio. Rye and Bourbon whisky.....	20,244	Oct. 20	57	278
French, Richards & Co., Philadelphia, Pa. Bird-seed.....	19,256	Mar. 31	54	1717
Frost & Co., George, Boston, Mass. Hose-supporters.....	19,235	Mar. 31	54	1717

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Fry, Henry W., London, England. Flour and meal.	19,212	Mar. 24	54	1566
Frye, George C., Portland, Me. Remedy for dyspepsia.	19,336	Apr. 14	55	144
Fuchs & Lang, New York, N. Y. Printing and lithographing inks.	19,345	Apr. 14	55	145
Fulton Iron and Engine Works, Detroit, Mich. Tackle blocks.	19,666	June 9	55	1280
Furniture Drawer Equalizer Company, St. Louis, Mo. Drawer-equalizers.	20,159	Sept. 22	56	1452
Gabrio & Spitz, Des Moines, Iowa. Cigars.	19,146	Mar. 3	54	1118
Gail & Ax, G. W., Baltimore, Md. Tobacco and snuff.	19,969	Aug. 4	56	532
Gail & Ax, G. W., Baltimore, Md. Tobacco and snuff.	19,982	Aug. 4	56	532
Galbraith, William H., Philadelphia, Pa. Headache remedy.	19,740	June 23	55	1534
Galt, Bro. & Co., M. W., Washington, D. C. Knives, forks, spoons, and other gold, silver, and plated articles.	19,421	May 5	55	578
Galt, Bro. & Co., M. W., Washington, D. C. Knives, forks, spoons, and other gold, silver, and plated articles.	19,769	June 30	55	1656
Galt, Bro. & Co., M. W., Washington, D. C. Knives, forks, spoons, and other gold, silver, and plated articles.	20,448	Dec. 8	57	1284
Garcia, Bro. & Co., F., New York, N. Y. Leaf-tobacco.	19,430	May 5	55	578
Garcia & Co., Havana, Cuba. Cigars.	19,365	Apr. 21	55	291
Garcia & Co., Havana, Cuba. Cigars.	19,366	Apr. 21	55	291
Garcia & Co., Havana, Cuba. Cigars.	19,367	Apr. 21	55	291
Garcia & Co., Havana, Cuba. Cigars.	19,368	Apr. 21	55	291
Garcia, Frank, Jacksonville, Fla. Cigars.	19,568	May 26	55	1002
Garcia, Ysidro P., New York, N. Y. Cigars.	19,382	Apr. 21	55	292
Gartner & Friederheit, New York, N. Y. Ribbons.	19,699	June 16	55	1404
Gate City Hat Company, Omaha, Nebr. Hats and caps.	19,054	Feb. 17	54	822
Gates, William C., New York, N. Y. Serial publications.	20,471	Dec. 22	57	1600
Gayetty Paper Co., New York, N. Y. Medicated toilet-paper.	20,268	Oct. 27	57	416
Gedney Pickle Company, Omaha, Nebr. Pickled fruits and vegetables.	19,053	Feb. 17	54	822
Gener, José, Havana, Cuba. Cigars, cigarettes, and manufactured tobacco.	19,117	Mar. 3	54	1118
Gener, José, Havana, Cuba. Cigars, cigarettes, and manufactured tobacco.	19,118	Mar. 3	54	1118
Gener, José, Havana, Cuba. Cigars, cigarettes, and manufactured tobacco.	19,280	Apr. 7	55	3
Gener, José, Havana, Cuba. Cigars.	19,887	July 14	56	146
George Keller Brewing Company, Philadelphia, Pa. Lager-beer.	20,042	Aug. 18	56	808
George L. Thompson Manufacturing Company, Chicago, Ill. Hair-curlers.	19,852	July 7	56	2
Georges, John J. and W. W. Washington, D. C. Leather-dressing.	20,295	Nov. 3	57	550
Georges, William W. (See Georges, John J. and W. W.)				
Gérard, Dufrasseix & Morel, E., Limoges, France. Porcelain, crockery, earthenware, glass, and faience.	18,993	Feb. 10	54	667
Gesellschaft für Fabrikation Diätetischer Produkte, Ed. Loefund & Co., Stuttgart, Germany. Certain named dietetic products.	19,160	Mar. 10	54	1270
Getz, Peter C., Philadelphia, Pa. Ladies' gossamers.	20,240	Oct. 20	57	278
Gibson, Frederic J., Toronto, Canada. Prepared icing-sugar.	20,475	Dec. 22	57	1600
Gilbert, John T., Chicago, Ill. Flavoring extracts for foods.	19,214	Mar. 24	54	1566
Gilbert, John T., Chicago, Ill. Baking-powder.	19,857	July 7	56	2
Gilman, George F., New York, N. Y. Coffee, tea, and spices.	18,863	Jan. 20	54	270
Gilmore, William H., Rochester, N. Y. Medic-ted wines.	20,079	Aug. 25	56	932
Gilmour, Robert M., New York, N. Y. Insulating materials for covering pipes, boilers, and like articles.	20,058	Aug. 18	56	808
Giron Frères, St. Etienne, France. Ribbons.	19,213	Mar. 24	54	1566
Gleason, Marcus B., Westfield, N. Y. Unfermented grape-juice.	20,347	Nov. 10	57	699
Glidden & Joy Varnish Company, Cleveland, Ohio. Spirits for mixing paints, oils, and varnishes.	20,353	Nov. 10	57	699
Glidden & Joy Varnish Company, Cleveland, Ohio. Filler for wood surfaces.	20,354	Nov. 10	57	699
Glover & Allen, Juliette, Ga. Cornmeal.	20,071	Aug. 25	56	932
Gluck & Sons, G., Minneapolis, Minn. Lager-beer.	19,307	Apr. 7	55	4
Glynn, Walter B., Saxton's River, Vt. Maple sugar and sirup.	19,690	June 9	55	1280
Godfrey, George W. (See Rivard and Godfrey.)				
Godley & Co., L. M., Scottsville, N. Y. Wheat-flour.	19,477	May 12	55	720
Gold & Schrader, Columbus, Ohio. Medicated candy.	19,338	Apr. 14	55	144
Goldaine, James F., Pittsburg, Pa. Remedy for throat and lung troubles.	19,759	June 23	55	1534
Goldsborough, Charles, Baltimore, Md. Whisky.	18,837	Jan. 13	54	142
Goodyear Shoe Machinery Company, Boston, Mass., and Hartford, Conn. Machine-sewed boots and shoes.	19,350	Apr. 14	55	145
Gordon, Read, New York, N. Y. Jams, jellies, marmalades, and preserves.	19,484	May 12	55	720
Gordon, Read, New York, N. Y. Preserved, bottled, and canned fruits and vegetables.	19,958	Aug. 4	56	532
Gormully & Jeffery Manufacturing Company, Chicago, Ill. Bicycles and tricycles.	19,552	May 19	55	871
Gormully & Jeffery Manufacturing Company, Chicago, Ill. Bicycles.	19,553	May 19	55	871
Gorton & Co., S., Gloucester, Mass. Cut and boneless fish.	19,720	June 16	55	1404
Goulet & Co., George, Rheims, France. Champagne-wines.	20,335	Nov. 10	57	698
Graef & Schmidt, New York, N. Y. Cutlery.	20,273	Oct. 27	57	416
Graef & Schmidt, New York, N. Y. Razors, pocket-knives, and scissors.	20,482	Dec. 22	57	1600
Graf & Co., William, Milwaukee, Wis. Cigars.	19,677	June 9	55	1280
Graham, William R., Everton, England. Games, puzzles, and toys.	19,205	Mar. 24	54	1566
Graves & Sons, Chester H., Boston, Mass. Ale.	19,119	Mar. 3	54	1118
Graves & Sons, Chester H., Boston, Mass. Whisky.	19,994	Aug. 11	56	666
Gray, Will M. (See Frien and Gray.)				
Green Chemical Co., Philadelphia, Pa. Insect-destroyer.	20,390	Nov. 17	57	850
Green & Co., E. V., Janesville, Wis. Fountain-pens.	20,233	Oct. 20	57	278
Green, Joseph W., Jr., and G. C. Moore, East Hampton, Mass. Narrow elastic woven fabrics known as goring.	19,650	June 2	55	1147
Greene, Myron S., New York, N. Y. Pills, capsules, tablets, and pastils.	19,355	Apr. 14	55	145
Greenfield, Lewis T., Pittsburg, Pa. Pellets for headache, heartburn, flatulence, and indigestion.	19,957	Aug. 4	56	532
Grether, John, Akron, Ohio. Copper polish.	18,802	Jan. 6	54	3
Grenle, Albert M., Newport, Ky. Cough-drops.	18,940	Feb. 3	54	511
Grierson, Oldham & Co., London, England. Distilled liquors.	20,038	Aug. 18	56	808
Gripp & Son, E., Louisville, Ky. Wheat-flour.	19,795	June 30	55	1657
Griswold & Co., N. L., Peoria, Ill. Chocolate candies.	19,822	June 30	55	1658
Gronmies & Ullrich, Chicago, Ill. Cigars.	19,279	Apr. 7	55	3
Grossman, Jacob, New Orleans, La. Bitters.	20,324	Nov. 3	57	551
Grove & Son, Samuel, Salem, Ohio. Chewing-gum.	19,330	Apr. 14	55	144
Groves, John D., Philadelphia, Pa. Remedy for rheumatism, neuralgia, and like diseases.	19,231	Mar. 31	54	1717
Groves, John D., Philadelphia, Pa. Antidotes for intoxicants.	19,337	Apr. 14	55	144
Groves, John D., Philadelphia, Pa. Anodyne for infants.	19,343	Apr. 14	55	145
Grovesend Tin Plate Company, Gorseimon, England. Tin plates.	19,614	June 2	55	1146
Grovesend Tin Plate Company, Gorseimon, England. Tin plates.	19,615	June 2	55	1146
Grovesend Tin Plate Company, Gorseimon, England. Tin plates.	19,616	June 2	55	1146

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Grovesend Tin Plate Company, Gorseinon, England. Tin plates	19,837	July 7	56	2
Gude & Co., A., Leipsic, Germany. Remedy for the cure of anæmia, chlorosis, and similar troubles.	20,209	Oct. 13	57	128
Gulick & Co., Terre Haute, Ind. Emulsions	19,116	Mar. 3	54	1118
Guillaume, Pierre P., Paris, France. Arm pit-shields and hat-linings	19,396	Apr. 21	55	292
Gummev, Spering & Co., Philadelphia, Pa. Tin andterne plates	18,864	Jan. 20	54	270
Gummev, Spering & Co., Philadelphia, Pa. Tin andterne plates	18,902	Jan. 27	54	394
Gurney Hot Water Heater Company, Boston, Mass. Hot-water heaters	19,070	Feb. 24	54	964
Gustain, Leon, New York, N. Y. Parlor-matches	19,318	Apr. 14	55	144
Gustine, Henry B., Canton, Ill. Flavoring or sirups used with soda-fountains	20,245	Oct. 20	57	278
Gwendraeth Tin Plate Company, Limited, Kidwelly, England. Tin,terne, and black plates and taggers, and Canada plates	19,299	Apr. 7	55	4
Gwendraeth Tin Plate Company, Limited, Kidwelly, England. Tin,terne, and black plates and taggers, and Canada plates	19,300	Apr. 7	55	4
Gwendraeth Tin Plate Company, Limited, Kidwelly, England. Tin,terne, and black plates and taggers, and Canada plates	19,301	Apr. 7	55	4
Gwendraeth Tin Plate Company, Limited, Kidwelly, England. Tin,terne, and black plates and taggers, and Canada plates	19,302	Apr. 7	55	4
Haberman Manufacturing Company, Berlin and New York, N. Y. Steel-enameled kitchen-ware.	20,077	Aug. 25	56	932
Haddkins Bottling Co., Tottenville, N. Y. Aerated and non-alcoholic beverages	19,411	Apr. 28	55	436
Hahn, Gustav, Omaha, Nebr. Tonics, cough and asthma cure, and liniment	19,631	June 2	55	1147
Haight, Robert G., Canton, Ohio. Cigars	20,349	Nov. 10	57	699
Hake Manufacturing Company, Ph., New York, N. Y. Writing-paper	19,670	June 9	55	1280
Hall, Clara B., and A. B. Mathers, Fishkill-on-the-Hudson, N. Y. Salve	19,950	July 28	56	402
Hall, Dewitt C., New York, N. Y. Perforated buckskin underwear	19,055	Feb. 17	54	822
Hall, John F., Sheffield, England. Steel castings and other like forms	19,696	July 21	56	266
Hall, William H., New York, N. Y. Shaving-cream	19,168	Mar. 10	54	1270
Hall, William H., New York, N. Y. Tooth-paste	19,750	June 23	55	1534
Hall, William H., New York, N. Y. Toilet-soap	20,009	Aug. 11	56	666
Halleck, William C., Portland, Oreg. Hair-tonic	20,274	Oct. 27	57	416
Hamilton Organ Company, Indianapolis, Ind., and Chicago, Ill. Organs	19,251	Apr. 7	55	3
Hamrick Tank and Barrel Hard Shell Enameling Company, Philadelphia, Pa. Enamel for coating the interior of barrels, tanks, and vessels	19,525	May 19	55	871
Hand, Edward L., Philadelphia, Pa. Anti-friction metal	19,570	May 26	55	1002
Hanes, Benjamin F., Winston, N. C. Tobacco, cigars, and cigarettes	20,348	Nov. 10	57	699
Hansen & Smith, Wilmington, N. C. Species of wood alcohol	18,977	Feb. 10	54	666
Hanson, Edgar F. (See Kilgore and Hansen.)				
Hanthorn & Co., J. O., Astoria, Oreg. Canned salmon	20,098	Sept. 1	56	1064
Hardenberg, Marion M., Jersey City, N. J. Pills	20,116	Sept. 8	56	1208
Harder, Charles H., Pittsfield, Ill. Ointment	18,784	Jan. 6	54	3
Harnist, William D., Edwardsville, Ill. Veterinary remedies	18,928	Feb. 3	54	511
Harr, Dock D., Belmond, Iowa. Preparation for skin diseases	18,782	Jan. 6	54	2
Harris, George W., Allston, Mass. Pills and a remedy for diseased scalps	20,210	Oct. 13	57	128
Harris, John H., New York, N. Y. Metallic packing	19,823	June 30	55	1658
Harris & Shafer, Washington, D. C. Gold, silver, and plated flat and table ware	19,995	Aug. 11	56	666
Hart & Co., H. Gilbert, Utica, N. Y. Heating-furnaces	20,363	Nov. 10	57	699
Harter Medical Co., Sedalia, Mo. Remedy for liver and kidney diseases	18,903	Jan. 27	54	994
Hartlepoole's Salt and Brine Company, Greatham, England. Table and dairy salt	20,087	Aug. 25	56	932
Hartlepoole's Salt and Brine Company, Greatham, England. Table, curing, and dairy salt	20,088	Aug. 25	56	932
Hartmann & Co., F. W., Milwaukee, Wis. Bitters	20,531	Dec. 29	57	1726
Harvell & Co., E. T., Rockland, Mass. Men's shoes	19,709	June 16	55	1404
Hasbrouck, William H., New York, N. Y. Writing-tablets and envelopes	20,298	Nov. 3	57	550
Haskin & Todd, Ithaca, N. Y. Poison for vermin	18,910	Jan. 27	54	394
Haslam, Lewis, London, England. Open or net work fabric for wearing-apparel	20,152	Sept. 22	56	1452
Haslam, Lewis, London, England. Open or net work fabric for wearing-apparel	20,153	Sept. 22	56	1452
Hattie & Mylius, Halifax, Nova Scotia, Canada. Disinfectants and deodorizers	20,146	Sept. 15	56	1340
Hausmann, Charles F., St. Gall, Switzerland. Remedy for dyspepsia and anæmia	19,657	June 2	55	1147
Haviland & Co., New York, N. Y. Porcelain ornaments and toilet and table ware	19,257	Mar. 31	54	1717
Haviland & Co., New York, N. Y. Porcelain ornaments and toilet and table ware	19,258	Mar. 31	54	1718
Haviland & Co., New York, N. Y. Porcelain ware and ornaments	19,569	May 26	55	1002
Hawks, Dwight H., Goshen, Ind. Condition-powder	20,072	Aug. 25	56	932
Hawthorn, Aldus F., Lancaster, Pa. Roofing-paint	20,255	Oct. 27	57	416
Hayes, John J., Boston, Mass. Whisky	19,107	Mar. 3	54	1117
Hayward & Bro., Easton, Md. Remedy for cholera and other stomach complaints	19,031	Feb. 17	54	822
Haywood, Thomas J., Ypsilanti, Mich. China and Japan tea	19,824	June 30	55	1658
Hazard Powder Company, New York, N. Y., and Hazardville, Conn. Gunpowder	19,505	May 12	55	720
Hazen & Co., E., Chardon, Ohio. Remedy for healing purposes in man or beast	19,972	Aug. 4	56	532
Healy, John E., and C. Bigelow, New Haven, Conn. Remedies for diseases of the blood, liver, stomach, kidneys, &c.	20,068	Aug. 25	56	932
Hearn & Son, James A., New York, N. Y. Single-colored cotton fabrics for dress goods, draperies, and decorations	19,749	June 23	55	1534
Hecker & Söhne, Gottlieb, Chemnitz, Germany. Hosiery	19,412	Apr. 28	55	436
Heidt, Thomas P., Savannah, Ga. Toilet powders	19,319	Apr. 14	55	144
Heins, John J., New York, N. Y. Ready-mixed enamel paints	19,633	June 2	55	1147
Honninger Bros., Havana, Ill. Yeast cakes	18,968	Feb. 10	54	666
Henrietta Mills, Henrietta, N. C. Cotton sheetings, shirtings, and drills	20,147	Sept. 15	56	1340
Henry, Francis, Manchester, England. Magnesia	19,867	July 14	56	146
Hentz & Co., William A., Philadelphia, Pa. Whisky	19,571	May 26	55	1002
Henwood, Horace E., Kansas City, Mo. Lotions, soaps, salve, and dentifrices	20,024	Aug. 11	56	666
Hercules Paper Bag Co., Limited, Reading, Pa. Paper bags	19,344	Apr. 14	55	145
Herrold, Maude M., Kansas City, Mo. Suppositories for women	19,921	July 28	56	401
Hertz & Kiesling, Houston, Tex. Frozen confections	20,019	Aug. 11	56	666
Herzberg & Co., B., London, England. Hats, caps, and other head-coverings	19,885	July 14	56	146
Hetherington, John E., New York, N. Y. Remedy for diseases of the liver	19,916	Feb. 3	54	510
Henman & Sons, L., New York, N. Y. Lamp-chimneys	19,644	June 2	55	1147
Hewlett & Lee, New York, N. Y. Formosa oolong tea	19,983	Aug. 4	56	532
Hewlett & Lee, New York, N. Y. Formosa oolong tea	19,984	Aug. 4	56	532
Hickey, Edmund J., Augusta, Ga. Hair-tonic	19,631	Mar. 17	54	1422
Hickman & Lindsly, Missoula, Mont. Remedy for diarrhea	19,796	June 30	55	1657
Hickox, William C., New York, N. Y. Beverage containing ginger	18,953	Feb. 10	54	666
Higgins, Charles S., Brooklyn, N. Y. Kitchen and laundry soap	19,854	July 7	56	2
Hill & Co., H. M., Lynn, Mass. Spoons, forks, and articles known as flat ware	19,321	Mar. 24	54	1566
Hillman, Herbert & Cooper, Limited, Coventry, England. Velocipedes and parts thereof	19,588	July 7	56	2
Hochstadter, Bettie, New York, N. Y. Kümmel	18,929	Feb. 3	54	511
Hoffman, George E., Cressona, Pa. Salve	19,032	Feb. 17	54	822

Alphabetical list of registrants of trade-marks—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
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Hoffman, George W., Indianapolis, Ind. Compound for polishing metals, glass, wood, and leather.	19,970	Aug. 4	56	532
Hohner, Matthias, Trossingen, Germany. Mouth-harmonicas.	20,264	Oct. 27	57	416
Holt Company, Hiram, East Wilton, Me. Hay-knives.	19,390	Apr. 21	55	292
Home Remedy Company, New York, N. Y. Cough-sirups, liniments, and blood-purifiers.	20,176	Sept. 29	56	1568
Hooker, John H., Verney Junction, Winslow, England. Milk wine.	20,336	Nov. 10	57	698
Hooper, William J., Baltimore, Md. Cotton twine.	18,847	Jan. 13	54	142
Hopkins, Stephen, Jr., Rome, N. Y. Axle-lubricants.	20,000	Aug. 11	56	666
Horn, Edward L., Mansfield, Ohio. Cigars.	20,382	Nov. 17	57	850
Horner, James, Pittsburg, Pa. Preserving-salt for curing meats.	19,632	June 2	55	1147
Horner, James, Pittsburg, Pa. Prepared spices and herbs for flavoring foods.	19,667	June 9	55	1280
Horner, James, Pittsburg, Pa. Antiseptic coloring compound for use upon cured meats.	19,730	June 16	55	1404
Horsman, Edward I., New York, N. Y. Game of jack-straws.	19,465	May 12	55	720
House, George V., Jr., New York, N. Y. Trusses.	19,971	Aug. 4	56	532
Houston & Co., W. J., San Francisco, Cal. Cigars.	20,396	Nov. 24	57	1006
Huber Brewery, Otto, Brooklyn, N. Y. Beer.	19,816	June 30	55	1658
Huber Specific Co., Noblesville, Ind. Remedy for hog-cholera.	19,851	July 7	56	2
Hubert, Charles G., New York, N. Y. Cotton thread.	19,700	June 16	55	1404
Hudnut, Richard, New York, N. Y. Pills.	19,431	May 5	55	578
Hudson, Horace G., Amesbury, Mass. Flat ware, including spoons, knives, forks, and ladles.	19,959	Aug. 4	56	532
Hudson, Horace G., Amesbury, Mass. Spoons, knives, forks, and other articles of flat ware.	20,320	Oct. 13	57	128
Hudson, Horace G., Amesbury, Mass. Spoons, knives, forks, and other articles of flat ware.	20,321	Oct. 13	57	128
Hughes, Edwin S., Glenwood Springs, Colo. Mineral waters and soft drinks.	19,526	May 19	55	871
Hulbert, Henry C., New York, N. Y. Pure gypsum for paper-making.	18,665	Jan. 20	54	270
Hulbert, Henry C., New York, N. Y. Pure gypsum for paper-making.	19,453	May 12	55	719
Hulstkaamp, Zoon & Molyn, Rotterdam, Netherlands. Cordials.	19,071	Feb. 24	54	964
Humber & Company, Limited, London, Coventry, Beeston, and Wolverhampton, England. Velocipede.	20,325	Nov. 3	57	551
Hume & Co., W. S., Silver Creek, Ky. Whisky.	19,906	July 21	56	266
Hume, John W., Parkersburg, Oreg. Canned salmon.	20,108	Sept. 8	56	1208
Hume, Robert D., San Francisco, Cal. Canned salmon.	18,783	Jan. 6	54	2
Hume, Robert D., San Francisco, Cal. Canned salmon.	18,930	Feb. 3	54	511
Hunt, Peter M., Pittsburg, Pa. Remedy for the cure of catarrh.	19,154	Mar. 10	54	1270
Huntley & Co., L. J., Wadesborough, N. C. Line of proprietary medicines.	20,357	Nov. 10	57	699
Hurd, George E., St. Paul, Minn. Remedies for diseases of the throat and lungs.	19,926	July 28	56	402
Hutchinson, John H., Portsmouth, N. H. Silver and plated spoons, forks, bells, plates, and hollow ware for the table.	19,770	June 30	55	1656
Hyde Carpet Cleaner and Moth Exterminating Co., Des Moines, Iowa. Detergent composition resembling soap.	19,259	Mar. 31	54	1718
Hyde & Sons, A. G., New York, N. Y. Silesia.	19,050	Feb. 17	54	822
Ide & Son, A. L., Springfield and Chicago, Ill. Steam-engines.	19,501	May 12	55	720
Imperial Chemical Company, New York, N. Y. Hair-removers, shampoos, soaps, creams, powders, and lotions for the skin.	19,830	June 30	55	1658
Imperial Packing Company, Canajoharie, and New York, N. Y. Hams and bacon.	19,838	July 7	56	2
Improved Process Glue Company, Portland, Me., and Gloucester and Boston, Mass. Liquid fish-glue.	20,091	Sept. 1	56	1064
Ind, Coope & Co., Limited, Romford, Burton-on-Trent, and London, England. Ale and porter.	19,718	June 16	55	1404
International Rock Plaster Company, Jersey City, N. J., and Columbus, Ohio. Wall-plaster.	19,402	Apr. 28	55	436
Iowa Farming Tool Company, Fort Madison, Iowa. Forks, hoes, rakes, and hooks.	19,356	Apr. 14	55	145
Ironite Co., Cairo, Ill. Tonic for the nerves, blood, and brain.	20,211	Oct. 13	57	128
Iroy & Co., Ernest, Rheims, France. Champagnes.	19,183	Mar. 17	54	1422
Isaacs & Co., Leon, Philadelphia, Pa. Metallic pens.	20,415	Dec. 1	57	1136
Isaacs, Mone R., Philadelphia, Pa. Phosphor-tin, phosphor-bronze, and manganese-bronze.	20,476	Dec. 22	57	1600
J. H. Keller's Soap Works, New Orleans, La. Hard soap.	19,927	July 28	56	402
J. M. Carpenter Tap and Die Company, Pawtucket, R. I. Blacksmiths' and machinists' small tools, including taps, dies, and the like.	19,951	July 28	56	402
J. & P. Coats, Limited, Paisley, Scotland. Cotton thread or spool-cotton.	20,526	Dec. 29	57	1726
J. & P. Coats, Limited, Paisley, Scotland. Spool-cotton or cotton thread.	20,527	Dec. 29	57	1726
Jackson Company, Nashua, N. H. Cotton sheetings and shirtings.	19,760	June 23	55	1534
Jackson Company, Nashua, N. H. Cotton sheetings and shirtings.	19,761	June 23	55	1534
Jackson Company, Nashua, N. H. Cotton sheetings and shirtings.	19,762	June 23	55	1534
Jaffé & Darmstaedter, Benno, Charlottenburg, near Berlin, Germany. Remedies for skin diseases.	20,505	Dec. 29	57	1726
Jaffray & Co., E. S., New York, N. Y. Men's, women's, and children's hosiery and gloves.	20,160	Sept. 22	56	1452
Jammes, Albert F., New York, N. Y. Corsets.	18,917	Feb. 3	54	510
Jaques, Frank F., Kansas City, Mo. Baking-powder.	18,978	Feb. 10	54	666
Jayne, John E., Do Witt, Mich. Veterinary remedies.	19,120	Mar. 3	54	1118
Jewell Belting Company, Hartford, Conn. Belting of leather and other flexible material.	20,269	Oct. 27	57	416
Jewesson, Maria L., Brooklyn, N. Y. Remedy for the piles.	20,442	Dec. 8	57	1284
John Dickinson Company, Limited, London, England. Paper, cards, and envelopes.	19,613	June 2	55	1146
John J. Mitchell Company, New York, N. Y. Leads and chalk for use in pencils and crayons.	19,723	June 16	55	1404
Johnson Brothers, New York, N. Y. Metal-polish.	19,710	June 16	55	1404
Johnson, Herman M., San Francisco, Cal. Liquid preparation for medicinal purposes.	19,009	Feb. 10	54	667
Johnson, Irving L., Thompson, Conn. Remedy for malarial diseases.	20,374	Nov. 17	57	850
Johnson, William L., Newburyport and Boston, Mass. Crackers.	20,506	Dec. 29	57	1726
Jones Chemical Company, Enos F., Jersey City, N. J., and New York, N. Y. Baking-powder.	19,072	Feb. 24	54	964
Jones, Herbert A., Hinrods, N. Y. Nursery products, including trees, plants, scions, and fruit.	18,911	Jan. 27	54	394
Jones, James W., Americus, Ga. Remedy for diseases of the blood and liver.	18,666	Jan. 20	54	270
Jones of Binghamton, Binghamton, N. Y. Weighing-scales.	19,572	May 26	55	1002
Jordan, Andrew J., St. Louis, Mo. Shears and scissors, and table, pocket, and shaving cutlery.	19,236	Mar. 31	54	1717
Jordan, Andrew J., St. Louis, Mo. Shears and scissors, and table, pocket, and shaving cutlery.	19,237	Mar. 31	54	1717
Jordan, Andrew J., St. Louis, Mo. Shears, scissors, and table, pocket, and shaving cutlery.	19,701	June 16	55	1404
Justi, Henry D., Philadelphia, Pa. Artificial teeth.	19,022	Feb. 17	54	821
K. & W. Automatic Rapid-Photo Printing Machine Co., Undercliff, N. J. Sensitized, preservative, and adhesive monogram-paper.	19,965	Aug. 4	56	532
Kahlbaum, Johannes, Berlin, Germany. Anesthetics or hypnotics.	20,460	Dec. 15	57	1432
Kahn, Benjamin, New York, N. Y. Hats and caps.	19,155	Mar. 10	54	1270
Kalbe, Eugen, Berlin, Germany. Accordions.	19,041	Feb. 17	54	822
Kampmann & Meyer, New York, N. Y. Fringes.	18,969	Feb. 10	54	666
Kampmann & Meyer, New York, N. Y. Embroidery materials, plush and chenille ornaments, and trimmings for upholstery.	18,980	Feb. 10	54	667
Kansas City Soap Company, Kansas City, Mo., and Kansas City, Kans. Laundry-soap.	19,140	Mar. 3	54	1118
Karsner, Charles W., Philadelphia, Pa. Homeopathic remedies for family use.	19,711	June 16	55	1404
Kast & Ehinger, Stuttgart, Germany. Printing and lithographing inks.	18,827	Jan. 13	54	142
Kastor & Bros., Adolph, New York, N. Y. Razors.	20,507	Dec. 29	57	1726
Keefe & Beccannon, New York, N. Y. Bicycles.	19,296	Apr. 7	55	3

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Keeneth & Co., John C., Brooklyn, N. Y. Kindling-wood	19,573	May 26	55	1002
Keith, Henrietta N., New York, N. Y. Medicinal plaster, unguent, or compound	20,291	Nov. 3	57	550
Kelleam, Robert T., Greenwood and Fort Smith, Ark. Remedy for gonorrhoea	19,702	June 16	55	1404
Keller, Oscar G., New Orleans, La. Soap-powder	20,161	Sept. 22	56	1432
Kelly, William E., New Brunswick, N. J. Steam-boilers	18,941	Feb. 3	54	511
Kemink, Theodore, Grand Rapids, Mich. Remedy for diseases of the blood, liver, and kidneys	19,033	Feb. 17	54	822
Kendall & Co., R. W., Boston, Mass. Cotton draperies, table-cloths, and similar goods	20,337	Nov. 10	57	698
Kennard Novelty Company, Baltimore, Md. Toys known as talking-boards	18,919	Feb. 3	54	510
Kenosha Watch Case Company, Kenosha, Wis. Watch-cases	20,266	Oct. 27	57	416
Kent & Co., George A., Binghamton, N. Y. Cigars	20,118	Sept. 8	56	1208
Kerr, Bro. & Co., Alexander, Philadelphia, Pa. Table-salt	19,320	Apr. 14	55	144
Kerr, Bro. & Co., Alex., Philadelphia, Pa. Table-salt	19,502	May 12	55	720
Kerr, Bro. & Co., Alex., Philadelphia, Pa. Table-salt	19,574	May 26	55	1002
Kertell, Charles, San Francisco, Cal. Food for live stock	19,432	May 5	55	578
Keys, Paphras B., Chicago, Ill. Preparation for curling the hair	20,286	Nov. 3	57	550
Kilgore, Gustavus C., and E. F. Hanson, Belfast, Me. Medicines for nervous diseases and for diseases of the blood and skin, suppositories, ointments, and medical compounds in the form of soap	20,162	Sept. 22	56	1452
Kilmer & Co., Binghamton, N. Y. Kidney, liver, and bladder remedy	19,161	Mar. 10	54	1270
Kimball & Son, L., Haverhill, Mass. Spoons, forks, and articles known as flat ware	19,222	Mar. 24	54	1566
Kimberly, Lewis A., New Haven, Conn. Powder for the prevention of odors from perspiring feet	20,192	Oct. 6	57	2
Kinahan & Company, Limited, London, England, and Dublin, Ireland. Whisky	19,444	May 5	55	578
Kinahan & Company, Limited, London, England, and Dublin, Ireland. Whisky	19,445	May 5	55	578
King, Charles A., Boston, Mass. Beer	20,001	Aug. 11	56	666
King Philip Mills, Fall River, Mass. Cotton goods, such as lawns, cambrics, &c	20,196	Oct. 6	57	2
King, William N., Jr., New York, N. Y. Dressing for patent and enameled leather	20,499	Dec. 22	57	1600
Kinney, Frederick A., Syracuse, N. Y. Games	19,282	Apr. 7	55	3
Kinsilla, Charles P., Paterson, N. J. Lotions for the skin	20,025	Aug. 11	56	666
Kismet Chemical Company, New York, N. Y. Insecticide	20,508	Dec. 29	57	1726
Klaine, Frank A., Cincinnati, Ohio Heating and cooking stoves	19,238	Mar. 31	54	1717
Klee & Falk, Pittsburg, Pa. Trousers	19,357	Apr. 14	55	145
Klein, Max, Allegheny, Pa. Whisky	19,527	May 19	55	871
Klindtworth, Adolph C., New York, N. Y. Flour	20,212	Oct. 13	57	128
Klotz, Victor, Paris, France, and New York, N. Y. Various toilet articles and preparations	20,117	Sept. 8	56	1208
Klueber Manufacturing Co., Brooklyn, N. Y. Toy torpedoes	19,223	Mar. 24	54	1566
Klueber Manufacturing Co., Brooklyn, N. Y. Toy torpedoes	20,107	Sept. 8	56	1208
Knight and Crowther, Limited, Cookley Works, county of Stafford, England. Tin plates	18,979	Feb. 10	54	667
Knollenberg, Henry H., Jacksonville, Ill. Cigars	19,598	May 26	55	1003
Knox, Charles B., Johnstown, N. Y. Gelatine	20,191	Oct. 6	57	2
Knoxville Brewing Company, Knoxville, Tenn. Lager-beer	19,010	Feb. 10	54	667
Kohler Manufacturing Company, Baltimore, Md. Remedy for headache and neuralgia	18,785	Jan. 6	54	3
Kohler Manufacturing Company, Baltimore, Md. Corn-salve and cough-sirup	18,867	Jan. 20	54	270
Kohnle, Joseph, Philadelphia, Pa. Malt extracts	19,413	Apr. 28	55	436
Kohnstamm & Co., H., New York, N. Y. Coal-tar colors	19,825	June 30	55	1658
Krauss & Meehan, Columbus, Ohio. Carpets composed chiefly of cork and oil	19,513	May 19	55	870
Krauss, Otto A., New York, N. Y. Gin	18,804	Jan. 6	54	3
Krauth, Elmir, Toledo, Ohio. Pills	19,232	Mar. 31	54	1717
Krieg & Co., J. K., New York, N. Y. Boots, shoes, and shoe-laces	18,868	Jan. 20	54	270
Krieg & Co., J. K., New York, N. Y. Button-fasteners	19,737	June 16	55	1404
Krieg & Co., J. K., New York, N. Y. Black oil dye for leather and articles made thereof	20,532	Dec. 29	57	1726
Krieg & Co., J. K., New York, N. Y. Black stain for leather	20,533	Dec. 29	57	1726
Kring, Alfred O., St. Louis, Mo. Remedies for diseases of the throat and lungs	19,121	Mar. 3	54	1118
Krystofovitch, Paul de, Paris, France. Artificial granite for ornamental and building purposes	18,803	Jan. 6	54	3
Kuehl, George, Chicago, Ill. Game-counters	19,156	Mar. 10	54	1270
Kutnow & Co., S., London, England. Effervescent Carlsbad powder	19,422	May 5	55	578
Labatt, John, London, Canada. Ale, stout, and porter	20,449	Dec. 8	57	1284
Labatt, John, London, Canada. Ale, stout, and porter	20,509	Dec. 29	57	1726
Ladd, William J., New York, N. Y. Compound for cleaning and polishing metals	18,905	Jan. 27	54	394
Lady Grey Perfumery Company, Boston, Mass. Perfumery, soap, powders, cream paste, and lotions for the toilet	19,369	Apr. 21	55	291
Lagoni, Peter M., Chicago, Ill. Whisky	19,434	May 5	55	578
Laidley, Edwin T., Port Jervis, N. Y. Remedy for headache, nervousness, and insomnia	18,786	Jan. 6	54	3
Lambeck, Herman, Jr., Milwaukee, Wis. Liquid remedy for chapped face and hands	19,463	May 12	55	719
Lambert, Emerson B., Port Jervis, N. Y. Vaginal suppositories	19,034	Feb. 17	54	892
Lambertville Rubber Company, Lambertville, N. J. Rubber boots and shoes	19,557	May 19	55	872
Langin & Foster, Boston, Mass. Children's shoes	19,687	June 9	55	1280
Lancaster Caramel Co., Lancaster, Pa. Caramels and candies	18,942	Feb. 3	54	511
Landers, Fray & Clark, New Britain, Conn. Cutlery for household use	19,001	Feb. 24	54	964
Lang, Bernheimer & Co., Philadelphia, Pa. Whisky	19,996	Aug. 11	56	666
Lape, Willard E., Syracuse, N. Y. Lawn-mowers	20,043	Aug. 18	56	808
Large, Henry, Jr., and F. C. Renziehausen, West Elizabeth, Pa. Whiskies and alcoholic liquors	19,997	Aug. 11	56	666
Larrabee & Co., R. C. & Le Roy, Minn. Tonic and blood purifier and remedy for diseases of women	20,387	Nov. 17	57	850
Laurance, Edward. (See McKay and Laurance.)				
Laurie, John, and E. Thompson, New York, N. Y. Carpet cleansing and renovating solutions	20,101	Sept. 1	56	1064
Lawrence & Son Piano Co., Boston, Mass. Pianos and repair parts therefor	19,329	Apr. 21	55	292
Layton, George B., New Glasgow, Canada. Remedy for dyspepsia	18,918	Feb. 3	54	510
Leach, Flower & Company, Limited, Mellicyrtan, England. Tin plates	19,617	June 2	55	1146
Leach, Flower & Company, Limited, Mellicyrtan, England. Tin plates	19,618	June 2	55	1146
Leach, Flower & Company, Limited, Mellicyrtan, England. Tin plates	19,928	July 28	56	402
Leatherol Co., New York, N. Y. Cleaning and polishing preparations	19,974	Aug. 4	56	532
Leathers, Don J. (See Barth and Leathers.)				
Lebeault & Co., P., Paris, France. Medicated wine	19,162	Mar. 10	54	1270
Lebeault & Co., P., Paris, France. Medicated wine	19,163	Mar. 10	54	1270
Lebeault & Co., P., Paris, France. Medicated wine	19,164	Mar. 10	54	1270
Ledger, Smith & Co., London, England. Fine cigarettes	20,246	Oct. 20	57	278
Ledig & Way, Philadelphia, Pa. Solid, plated, and composition ware	19,406	Apr. 28	55	436
Leiter, George B., Williamsport, Pa. Parlor game	20,416	Dec. 1	57	1136
Leith & Danforth, Providence, R. I. Perfumes	19,960	Aug. 4	56	532
Lemke, Herman C., Chicago, Ill. Liquid remedy for cholera, cramps, diarrhea, and flux	20,428	Dec. 1	57	1136
Lemon Chemical Company, Paducah, Ky., Jacksonville, Fla., and New York, N. Y. Remedy for chills	19,891	July 21	56	266
Leonard, Charles H., Grand Rapids, Mich. Refrigerators	20,326	Nov. 3	57	551
Leonard, George D., Springfield, Mass. Nose-bags for animals	19,712	June 16	55	1404
Leonhardt & Co., A., Muehlheim-on-the-Main, Germany. Certain named remedies	19,839	July 7	56	2
Leonhardt & Co., A., Muehlheim-on-the-Main, Germany. Remedies for insomnia	19,840	July 7	56	2

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Les Héritiers de Marie Brizard & Roger, M. B. Glotin, Achard & Glotin, Bordeaux, France. Liq- uors and cordials	19,554	May 19	55	871
Les Héritiers de Marie Brizard & Roger, M. B. Glotin, Achard & Glotin, Bordeaux, France. Liq- uors and cordials	19,555	May 19	55	871
Les Héritiers de Marie Brizard & Roger, M. B. Glotin, Achard & Glotin, Bordeaux, France. Ani- sette cordial	19,556	May 19	55	872
Leslie & Co., Charles, St. Louis, Mo. Remedy for diseases of the throat and lungs	19,122	Mar. 3	54	1118
Lever Brothers, Limited, Port Sunlight, near Birkenhead, England. Soaps, detergents, starch, and bluing	19,423	May 5	55	578
Levy, Henry. (See Baker and Levy.)				
Lewis, John B., Boston, Mass. Boots and shoes	19,756	June 23	55	1534
Lewisohn Brothers, New York, N. Y. Refined copper	20,230	Oct. 20	57	278
Lichty, Norman B., Des Moines, Iowa. Toilet soap	19,503	May 12	55	720
Lieber, David, New York, N. Y. Whisky	20,108	Sept. 8	56	1208
Liebman, Mario, Brooklyn, N. Y. Cotton-seed oil	19,073	Feb. 24	54	964
Liebman, Mario, New York, N. Y. Cotton-seed oil	19,331	Apr. 14	55	144
Lilly, Alouzo, Baltimore, Md. Remedy for rheumatism, gout, and neuralgia	19,454	May 12	55	719
Lily White Washing Compound Company, Jersey City, N. J., and New York, N. Y. Oleaginous preparation for washing clothes	18,869	Jan. 20	54	270
Lincoln, Lewis W., Chicago, Ill. Baking-powder	20,163	Sept. 22	56	1452
Lindekes, Warner & Schurmeier, St. Paul, Minn. Stockings	20,314	Nov. 3	57	551
Lindemann & Co., O., New York, N. Y. Bird-cages	20,128	Sept. 15	56	1340
Linoide Manufacturing Company, Boston, Mass., and Saco, Me. Preservative for paint, wood, and metal	18,805	Jan. 6	54	3
Lins & Sons, Hermann, Brooklyn, N. Y. Preserved vegetables, meats, fish, and fruit	19,488	May 12	55	720
Lion Silk Association, New York, N. Y. Silk piece-goods	18,806	Jan. 6	54	3
Litch, Wilbur F., Philadelphia, Pa. Bottles for mullage and ink	19,414	Apr. 28	55	436
Little, Adelbert P., Rochester, N. Y. Carbon-paper	20,010	Aug. 11	56	666
Little, Maxwell & Co., Boston, Mass. Boots and shoes	20,436	Dec. 1	57	1136
Litzelle, John C., Rockford, Ill. Line of proprietary medicines	19,892	July 21	56	266
Liverpool Marine Store Co., Liverpool, England. Materials for paper-making	19,308	Apr. 7	55	4
Liverpool Marine Store Co., Liverpool, England. Paper-making materials	19,309	Apr. 7	55	4
Liverpool Patent Soap Company, Limited, Liverpool, England. Soaps, detergents, starch, blue, and washing and bleaching powders	20,453	Dec. 22	57	1600
Lloyd, Eastburn, Chicago, Ill. Cement	19,228	Mar. 24	54	1566
Loewe & Co., D. E., Danbury, Conn. Men's and children's hats and caps	20,069	Aug. 25	56	932
Logan, Millie B., Rochester, N. Y. Gold, silver, and plated spoons and other table-ware	20,375	Nov. 17	57	850
Longman & Martinez, New York, N. Y. Prepared liquid paints	20,044	Aug. 18	56	808
Lopez & Co., Havana, Cuba. Cigars	19,599	May 26	55	1003
Lopez, Ramon, Havana, Cuba. Cigars	19,506	May 12	55	720
Lopez y Gonzalez, Antonio, Havana, Cuba. Cigars	19,597	May 26	55	1003
Lopez y Gonzales, Antonio, Havana, Cuba. Cigars	20,174	Sept. 29	56	1568
Lord & Taylor, New York, N. Y. Broadcloth	20,338	Nov. 10	57	698
Lord & Taylor, New York, N. Y. Dress goods known as cotton zephyrs	20,462	Dec. 15	57	1432
Lord & Taylor, New York, N. Y. Dress goods or fancy suitings	20,463	Dec. 15	57	1432
Louis Bergdoll Brewing Company, Philadelphia, Pa. Lager-beer	20,045	Aug. 18	56	808
Low, Daniel, Salem, Mass. Articles made wholly or in part of silver	18,838	Jan. 13	54	142
Low, Daniel, Salem, Mass. Articles made wholly or partly of silver	19,099	Feb. 24	54	964
Lowell, George H., Buffalo, N. Y. Crystallized flavoring simulating vanilla	19,487	May 12	55	720
Löwenthal, Louis, Berlin, Germany. Musical instruments	19,466	May 12	55	720
Lower Lanssion China Clay (Kaolin) Company, St. Austell, England. China-clay and clay of simi- lar character	20,265	Oct. 27	57	416
Lozano, Pendas & Co., New York, N. Y. Cigars	19,397	Apr. 21	55	292
Lührs & Harris, New York, N. Y. Brandy, whisky, rum, gin, wine, cordials, and bitters	20,275	Oct. 27	57	416
Lutz Bros., Allegheny, Pa. Pickles and relishes	19,486	May 12	55	720
Lutz, Peter C., and W. W. Cantwell, St. Paul, Minn. Stomach-bitters	20,461	Dec. 15	57	1432
Lynde & Son Company, B. A., Warren, Pa. Laundry and toilet soap	18,954	Feb. 10	54	866
Lyon, Hall & Co., Baltimore, Md. Linoleum	19,907	July 21	56	266
Lyon, William H., Newburg, N. Y. Table-ware technically known as flat ware	18,906	Jan. 27	54	394
Lystra Mineral Water Company of Baltimore County, Baltimore, Md. Mineral water	19,869	July 14	56	146
Macfarlane & Co., William, Bayonne, N. J. Dress goods in piece	20,478	Dec. 22	57	1600
Macfarlane & Mordue, Louisville, Ky. Cannel-coal	19,239	Mar. 31	54	1717
MacIntosh & Sons Company, D., Holyoke, Mass. Colored and prepared raw cottons	19,600	May 26	55	1003
Maconochie Bros., Lowestoft, England. Canned goods	20,276	Oct. 27	57	416
Maconochie Bros., Lowestoft, England. Canned goods	20,277	Oct. 27	57	416
Maddocks, John, Bradford, England. Cotton, linen, hemp, and silk piece goods, woolen cloths, and worsted stuffs	19,763	June 23	55	1534
Maddocks, John, Bradford, England. Cotton, linen, hemp, and silk piece goods, woolen cloths, and worsted stuffs	19,764	June 23	55	1534
Magie Washing Powder Company, Chicago, Ill. Powder for laundry purposes	19,347	Apr. 14	55	145
Maguire, Michael T., Philadelphia, Pa. Preparation for leather-dressing	19,660	June 2	55	1148
Maier, Ludwig, Stuttgart, Germany. Underwear	19,489	May 12	55	720
Main Belting Company, Philadelphia, Pa., and Chicago, Ill. Leather belting	18,807	Jan. 6	54	3
Majestic Perfume Co., New York, N. Y., and Nashville, Tenn. Perfumery and toilet-soap	19,190	Mar. 17	54	1422
Mandabach, P. A., Columbus, Ohio. Internal and external remedy for skin diseases	19,123	Mar. 3	54	1118
Mandel, Adolf, New York, N. Y. Candles	18,870	Jan. 20	54	270
Mandel, Salomon, New York, N. Y. Flowers and feathers for millinery	18,945	Feb. 3	54	511
Manhattan Electrical Supply Company, New York, N. Y. Galvanic batteries	20,062	Aug. 25	56	932
Manitowoc Manufacturing Company, Manitowoc, Wis. School-desks	18,893	Jan. 20	54	270
Manitowoc Manufacturing Company, Manitowoc, Wis. School-seats	20,459	Dec. 15	57	1432
Mansel Triplite Co., Port Talbot, England. Tin andterne plates	19,775	June 30	55	1656
Mansur & Tebbetts Implement Company, St. Louis, Mo. Plows and cultivators	18,787	Jan. 6	54	3
Marburg Brothers, Baltimore, Md. Plug-cut smoking-tobacco	20,002	Aug. 11	56	666
Marey & Liger-Belair, C., Nuits, France. Wines	19,577	May 26	55	1002
Marshall & Company, Newark, N. J. Linen thread	19,358	Apr. 14	55	145
Marshall & Company, Newark, N. J. Linen thread	19,359	Apr. 14	55	145
Marshall & Company, Newark, N. J. Linen thread	19,363	Apr. 21	55	292
Marshall & Company, Newark, N. J. Linen thread	20,061	Aug. 18	56	808
Marshall & Company, Kearney, N. J. Shoe and linen thread	19,523	May 19	55	871
Marshall, Louise F., New York, N. Y. Toilet soap, perfumery, powder, and hair-restoratives	19,187	Mar. 17	54	1422
Marshall, Winfield S., Centralia, Ill. Combined hand-case and saddle-bags	19,973	Aug. 4	56	532
Martin Chemical Co., Tiffin, Ohio. Pills, troches, diphtheria-cure, and hair-vigor	20,468	Dec. 15	57	1432
Martin & Co., E. Rémy, Rouillac, France. Brandy	18,920	Feb. 3	54	510
Martin & Co., E. Rémy, Rouillac, France. Brandy	18,921	Feb. 3	54	510

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Martin & Co., E. Rémy, Rouillac, France. Brandy	18,922	Feb. 3	54	510
Martin & Co., E. Rémy, Rouillac, France. Brandy	18,923	Feb. 3	54	510
Martin & Co., E. Rémy, Rouillac, France. Brandy	18,982	Feb. 10	54	667
Martin & Co., John S., New York, N. Y. Cheese	19,732	June 16	55	1404
Marx & Co., J., Los Angeles, Cal. Salves, cough-sirups, and remedies for diseases of the blood	19,771	June 30	55	1656
Massasoit Whip Company, Westfield, Mass. Covered whips	20,231	Oct. 20	57	278
Matchless Metal Polish Company, Chicago, Ill. Metal-polish	19,549	May 19	55	871
Mathers, Abigail B. (See Hall and Mathers.)				
Matthews, Francis E., Stewart, Ohio. Tonic	20,453	Dec. 8	57	1284
Maurey-Deschamps, Felix A., Paris, France. Combs	19,180	Mar. 17	54	1422
Maurey-Deschamps, Felix A., Paris, France. Toilet-combs	19,181	Mar. 17	54	1422
Maurey-Deschamps, Felix A., Paris, France. Bristles used in making brushes	19,407	Apr. 28	55	436
Maurey-Deschamps, Felix A., Paris, France. Bristles used in making brushes	19,408	Apr. 28	55	436
Maurey-Deschamps, Felix A., Paris, France. Brushes and combs	19,704	June 16	55	1404
May, Eugene, New Orleans, La. Extract or sirup for beverages	19,949	July 28	56	402
Mayer & Loewenstein, New York, N. Y. Varnishes, japans, oil-finish, and bronzing-liquid	19,185	Mar. 17	54	1422
Maynz, Emanuel, New York, N. Y. Paint	20,398	Nov. 24	57	1006
McCaffrey, Charles P., Logansport, Ind. Remedies for external and internal uses in diseases of the throat, lungs, and stomach	20,020	Aug. 11	56	666
McCaffrey & Co., M., Logansport, Ind. Wheat-flour	19,797	June 30	55	1657
McCambridge & Co., Limited, Philadelphia, Pa. Porcelain water-closets, basins, and bath-wastes	20,070	Aug. 25	56	932
McClellan, Charles H., Troy, N. Y. Collars and cuffs	19,601	May 26	55	1003
McClure Drug Company, Fort Wayne, Ind. Remedies for diseases of the blood, liver, kidneys, and bowels, dyspepsia, headache, biliousness, and neuralgia	20,039	Aug. 18	56	808
McClure Drug Company, Fort Wayne, Ind. Remedies for diseases of the blood, liver, kidneys, and bowels, and for dyspepsia, headache, biliousness, and neuralgia	20,092	Sept. 1	56	1064
McClure, William H., Peekskill, N. Y. Female remedy	20,081	Aug. 25	56	932
McElrath, Charles E., Hot Springs, Ark. Remedy for syphilis and rheumatism	19,998	Aug. 11	56	666
McIlhenny, John K., Rockingham, N. C. Chewing-gum	19,943	July 23	56	402
McInnes, Hugh, Bridgeport, Pa. Paper bags	19,841	July 7	56	2
McIntyre, Frederick S., Denver, Colo. Elixir	20,046	Aug. 18	56	808
McKay, John H., and E. Laurance, Truro, Canada. Porter	20,223	Oct. 13	57	128
McLean & Company, Limited, London, England. Builders' cements	20,073	Aug. 25	56	932
McLean & Company, Limited, London, England. Cements	20,148	Sept. 15	56	1340
Means, James, Boston and Brockton, Mass. Boots and shoes	19,575	May 26	55	1002
Means, James, Boston and Brockton, Mass. Boots and shoes	19,576	May 26	55	1002
Mechanical Fabric Company, Providence, R. I. Card-clothing	18,887	Jan. 20	54	270
Mecke & Co., New York, N. Y. Wheat-flour	20,247	Oct. 30	57	278
Mecke & Co., New York, N. Y. Wheat-flour	20,477	Dec. 22	57	1600
Mein, Benjamin B., Philadelphia, Pa. Parlor game-boards	20,241	Oct. 20	57	278
Meisel, Charles, New York, N. Y. Reed, string, and brass musical instruments and trimmings	19,635	June 2	55	1147
Melingriffith Company, Limited, Melingriffith Works, near Cardiff, county of Glamorgan, England. Sheet-iron, tin plates, andterne plates	18,794	Jan. 6	54	3
Melingriffith Company, Limited, Melingriffith Works, near Cardiff, county of Glamorgan, England. Sheet-iron, tin plates, andterne plates	18,816	Jan. 6	54	3
Melingriffith Company, Limited, Melingriffith Works, near Cardiff, county of Glamorgan, England. Sheet-iron, tin plates, andterne plates	18,817	Jan. 6	54	3
Melingriffith Company, Limited, Melingriffith Works, near Cardiff, county of Glamorgan, England. Sheet-iron, tin plates, andterne plates	18,818	Jan. 6	54	3
Melingriffith Company, Limited, Melingriffith Works, near Cardiff, county of Glamorgan, England. Sheet-iron, tin plates, andterne plates	18,819	Jan. 6	54	3
Membrey, John H., London, England. Pale orange bitters	19,092	Feb. 24	54	964
Mendia & Co., Domingo, Havana, Cuba. Cigars	20,202	Oct. 6	57	2
Menendez, Francisco, Havana, Cuba. Cigars	19,588	May 26	55	1003
Menendez, Francisco, Havana, Cuba. Cigars	19,589	May 26	55	1003
Menendez, José, Havana, Cuba. Cigars	19,504	May 12	55	720
Menendez, José, Havana, Cuba. Cigars	19,587	May 26	55	1003
Menendez y Martinez, Francisco, Havana, Cuba. Cigars	18,871	Jan. 20	54	270
Menendez y Martinez, Francisco, Havana, Cuba. Cigars	18,872	Jan. 20	54	270
Menendez y Martinez, Francisco, Havana, Cuba. Cigars	18,873	Jan. 20	54	270
Merchant & Co., Philadelphia, Pa. Tin andterne plates	20,287	Nov. 3	57	550
Merchant & Co., Philadelphia, Pa. Tin andterne plates	20,288	Nov. 3	57	550
Merchant & Co., Philadelphia, Pa. Tin andterne plates	20,376	Nov. 17	57	850
Merrell & Soule, Syracuse, N. Y. Canned meats, fish, fruits, vegetables, and mince-meat	19,929	July 28	56	402
Metzick & Co., C. S., New Haven, Conn. Tin andterne plates	20,289	Nov. 3	57	550
Metzger & Seligmann, New York, N. Y. Wines and liquors	18,955	Feb. 10	54	666
Meurer, Albert B., Louisville, Ky. Liquid purgative compounds	19,346	Apr. 14	55	145
Meyer, Adolph C., Baltimore, Md. Certain medicinal preparations	19,703	June 16	55	1404
Meyer Brothers Drug Company, St. Louis and Kansas City, Mo., and Dallas, Tex. Perfumery	19,842	July 7	56	2
Meyer & Brother Company, Max, Omaha, Nebr. Guitars, mandolins, zithers, banjos, and like stringed instruments	18,943	Feb. 3	54	511
Meyer, Hermann J., Chicago, Ill. Remedies for rheumatism, neuralgia, disorders of the stomach, and the like	20,464	Dec. 15	57	1432
Meyer, Julius D., Portland, Oregon. Cigars	19,100	Feb. 24	54	964
Michael, J. C., and C. A. Osmun, New York, N. Y. Insecticide	19,370	Apr. 21	55	291
Middlesex Manufacturing Company, Lower Jamesburg, N. J. Shirts, drawers, and overalls	18,926	Feb. 3	54	510
Miles, Luella, Lawrence, Mass. Salves and ointments	20,164	Sept. 22	56	1452
Miles Medical Company, Dr., Elkhart, Ind. Remedy for nervous diseases	19,975	Aug. 4	56	532
Miller, Hendricks & Co., Chicago, Ill. Canned and preserved meats	19,801	June 30	55	1657
Miller, William S., Mersersdale, Pa. Dust-conveyers for thrashing-machines	19,619	June 2	55	1146
Millis, Henry L., Millis, Mass. Ginger-ale	19,634	June 2	55	1147
Milwaukee Worsted Mills, Milwaukee, Wis. Worsted yarns	19,961	Aug. 4	56	532
Mimichino & Lafanci, Providence, R. I. Cigars	19,371	Apr. 21	55	291
Mitchell, Leslie D., Brattleborough, Vt. Musical instruments known as xylophones and bells	19,149	Mar. 10	54	1270
Monarch, Richard, Owensborough, Ky. Whisky	20,080	Aug. 25	56	932
Monheimer, Isa, Chicago, Ill. Rye whisky	20,059	Aug. 18	56	808
Montamat, Alfred, Brooklyn, N. Y. Coffee	20,222	Oct. 13	57	128
Montamat, Alfred, Brooklyn, N. Y. Coffee	20,256	Oct. 27	57	416
Montgomery Bros., Los Angeles, Cal. Gold, silver, and plated articles, flat ware, and jewelry	20,270	Oct. 27	57	416
Moore & Co., Charles H., Cincinnati, Ohio. Journal compounds and lubricating oils and greaso	19,184	Mar. 17	54	1422
Moore, George A., St. John, Canada. Cough medicine	19,035	Feb. 17	54	822
Moore, George C. (See Greeo and Moore.)				
Morgan & Co., W. W., Kansas City, Mo. Children's clothing	18,808	Jan. 6	54	3
Morgan, John, New York, N. Y. Mineral water	18,901	Jan. 27	54	394

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Morningstar, Joseph, New York, N. Y. Coca-wine	20,133	Sept. 15	56	1340
Morris & Co., Nelson, Chicago, Ill. Hog and beef products, including lard	19,514	May 19	55	870
Morris & Co., Nelson, Chicago, Ill. Beef and hog products, including lard and tallow	19,515	May 19	55	870
Morris & Co., Nelson, Chicago, Ill. Hog and beef products, including lard and tallow	20,064	Aug. 18	56	808
Morris & Co., Nelson, Chicago, Ill. Hog and beef products, including hams, shoulders, bacon, lard, and tallow	20,175	Sept. 29	56	1568
Morris & Co., Nelson, Chicago, Ill. Hams, shoulders, bacon, canned meats, sausage, soups and extracts, lard, oils and tallow, and other hog and beef products	20,180	Sept. 29	56	1568
Morris & Co., Nelson, Chicago, Ill. Hog and beef products, including lard and tallow	20,377	Nov. 17	57	850
Morris, George L., and W. T. Wilson, London, England. Bicycles, tricycles, and other cycles	19,157	Mar. 10	54	1270
Morrison, James L., New York, N. Y. Wire-stitching machines	19,124	Mar. 3	54	1118
Morrison, James L., New York, N. Y. Wire for stitching machines	19,125	Mar. 3	54	1118
Moseley & Moody, J. S., Chicago, Ill. Men's collars and cuffs	19,467	May 12	55	720
Mossler & Bro., J. S., Chicago, Ill. Outer garments	20,260	Nov. 3	57	550
Mowry, George W., Rochester, N. Y. Medicine for iubalation	18,912	Jan. 27	54	394
Mülthens & Kropff, New York, N. Y. Toilet soap	19,605	May 26	55	1003
Mullen-Blackledge Company, Indianapolis, Ind. Catsups, table-sauce, pickles, and relishes	18,996	Feb. 10	54	667
Müller, Philipp & Co., Marienbad, Austria-Hungary. Remedial salts derived from the water of the Marienbad spring	20,123	Sept. 8	56	1208
Müller, Philipp & Co., Marienbad, Austria-Hungary. Tablets or lozenges containing salts derived from the Marienbad spring-water	20,124	Sept. 8	56	1208
Mundell & Co., John, Philadelphia, Pa. Children's dress-shoes	19,524	May 19	55	871
Murias & Co., J. S., Havana, Cuba. Cigars	19,265	Mar. 31	54	1718
Murias & Co., J. S., Havana, Cuba. Cigars	19,478	May 12	55	720
Murray, Patrick M., Hillsborough, Tex. Liniment	19,233	Mar. 31	54	1717
Myers, George F., Denver, Colo. Internal remedies for rheumatism and kindred diseases	20,409	Nov. 24	57	1006
N. K. Fairbank & Company, Chicago, Ill., St. Louis, Mo., and New York, N. Y. Family soap	19,674	June 9	55	1280
N. K. Fairbank & Company, Chicago, Ill., St. Louis, Mo., and New York, N. Y. Family soap	19,696	June 16	55	1404
N. K. Fairbank & Company, Chicago, Ill., St. Louis, Mo., and New York, N. Y. Family soap	19,989	Aug. 4	56	532
N. K. Fairbank & Company, Chicago, Ill., St. Louis, Mo., and New York, N. Y. Family soap	20,112	Sept. 8	56	1208
Narragansett Machine Company, Pawtucket, R. I. Dumb-bells	19,688	June 9	55	1280
Nash & Co., Henry, Liverpool, England. Tin plates	19,859	July 7	56	2
National Brewing Company, Baltimore and Baltimore County, Md. Beer	18,997	Feb. 10	54	667
National Brewing Company, Baltimore and Baltimore County, Md. Beer	18,998	Feb. 10	54	667
National Refining Company, Cleveland, Ohio. Illuminating-oil	19,321	Apr. 14	55	144
National Refining Company, Cleveland, Ohio. Illuminating-oil	19,322	Apr. 14	55	144
National Refining Company, Cleveland, Ohio. Lubricating-oil	19,323	Apr. 14	55	144
National Refining Company, Cleveland, Ohio. Stove-gasoline	19,324	Apr. 14	55	144
National Brewery Company, St. Louis, Mo. Beer	20,430	Dec. 1	57	1136
National Brewery Company, St. Louis, Mo. Beer	20,431	Dec. 1	57	1136
National Drug Company, New Hampton, Iowa. Liniment	20,397	Nov. 24	57	1006
National Starch Manufacturing Company, Covington, Ky., and New York, N. Y. Corn-flour	19,678	June 9	55	1280
National Starch Manufacturing Company, Covington, Ky., and New York, N. Y. Corn-flour	19,679	June 9	55	1280
National Starch Manufacturing Company, Covington, Ky., and New York, N. Y. Corn-flour	19,680	June 9	55	1220
National Starch Manufacturing Company, Covington, Ky., and New York, N. Y. Corn-flour	19,689	June 9	55	1280
National Starch Manufacturing Company, Covington, Ky., and New York, N. Y. Corn-flour	20,251	Oct. 20	57	278
Natural Dam Pulp Company, New York, N. Y. Asbestine pulp	20,417	Dec. 1	57	1136
Neal, George W. (See Cassard and Neal.)				
Neale, Otis S., Boston, Mass. Beer	19,310	Apr. 7	55	4
Neale, Otis S., Boston, Mass. Manufactured non-intoxicating beer	19,860	July 7	56	2
Neathery, James M., Van Alstyne, Tex. Remedy for scrofula and kindred diseases of the blood	19,843	July 7	56	2
Nerve Seed Co., Chicago, Ill. Remedy for nervous diseases	20,465	Dec. 15	57	1432
Neuhaus, Louis, New York, N. Y. Tablets for duplicating manuscript	19,109	Mar. 3	54	1117
Neuss, Hessel & Co., New York, N. Y. Cotton goods	19,691	June 9	55	1280
Neuss, Hessel & Co., New York, N. Y. Bleached, gray, printed, and fancy domestics	20,364	Nov. 10	57	699
Neville, Thomas, Oshkosh, Wis. Carriages, cutters, sleighs, and vehicle parts	20,443	Dec. 8	57	1284
New Albany Cement Company, New Albany, Ind. Hydraulic cement	19,582	May 26	55	1002
New Home Sewing Machine Company, New York, N. Y. Sewing-machines and attachments	20,512	Dec. 29	57	1726
New Orleans Brewing Association, New Orleans, La. Bottled lager-beer	19,826	June 30	55	1658
New Orleans Coffee Company, Limited, New Orleans, La. Coffee	18,907	Jan. 27	54	394
New Orleans Medicine Co., New Orleans, La. Antiseptic for internal and external use	20,315	Nov. 3	57	551
New York Belting and Packing Company, Limited, London, England, and New York, N. Y. Rubber belting	18,844	July 7	56	2
New York Biscuit Company, Chicago, Ill., New York, N. Y., and Cambridgeport, Mass. Biscuits, crackers, wafers, cakes, and kindred articles	18,894	Jan. 20	54	270
New York Coal Tar Chemical Co., New York, N. Y. Ammonia	19,548	May 19	55	871
New York Insulated Wire Company, New York, N. Y. Electrical appliances	20,344	Nov. 10	57	699
New York Powder Company, New York, N. Y. Powder, fuses, caps, and other articles for blasting purposes	18,913	Jan. 27	54	394
Newey, James C., Birmingham, England. Hooks and eyes	20,129	Sept. 15	56	1340
Newhall, William F., Lynn, Mass. Flat and table ware	19,751	June 23	55	1534
Newman, Henry, New York, N. Y. Braids	19,216	Mar. 24	54	1586
Newman, Henry, New York, N. Y. Silk, cotton, and woolen goods used for tailors' trimmings	20,090	Sept. 1	56	1064
Newman & Sons, I., New Haven, Conn. Cersets and trimmings therefor	19,713	June 16	55	1404
Niles Tool Works, Hamilton, Ohio, Philadelphia and Pittsburg, Pa., Chicago, Ill., and New York, N. Y. Filter-presses	19,468	May 12	55	720
Noble & Haanel, St. Louis, Mo. Monthly publications	18,899	Jan. 6	54	3
Nolet, Arnoldus C. A., Schiedam, Holland. Gin	18,639	Jan. 13	54	142
Nonantum Worsted Company, Newton and Boston, Mass. Remedy for throat and lung diseases	19,036	Feb. 17	54	832
Nonantum Worsted Company, Newton and Boston, Mass. Wool, worsted, and cotton yarns	19,355	Apr. 21	55	292
Nonantum Worsted Company, Newton and Boston, Mass. Woolen, worsted, and cotton yarns	19,544	May 19	55	871
Nonotuck Paper Company, Holyoke, Mass. Writing-paper	19,865	July 7	56	2
Nonotuck Paper Company, Holyoke, Mass. Writing-paper	19,992	July 28	56	402
Nonotuck Paper Company, Holyoke, Mass. Writing-paper	19,923	July 28	56	402
Norman & Bennett, Boston, Mass. Boots and shoes	18,934	Feb. 3	54	511
North Manchester Fruit Preserving and Canning Company, North Manchester, Ind. Canned tomatoes and other edibles	20,157	Sept. 22	56	1452
Northfield Knife Company, Litchfield, Conn. Cutlery, including shears, scissors, and razors	19,415	Mar. 21	54	1566
Northwestern Consolidated Milling Company, Minneapolis, Minn. Wheat-flour	20,278	Oct. 27	57	416
Northwestern Consolidated Milling Company, Minneapolis, Minn. Wheat-flour	20,299	Nov. 3	57	550
Northwestern Consolidated Milling Company, Minneapolis, Minn. Wheat-flour	20,300	Nov. 3	57	550
Northwestern Consolidated Milling Company, Minneapolis, Minn. Wheat-flour	20,301	Nov. 3	57	550
Northwestern Consolidated Milling Company, Minneapolis, Minn. Wheat-flour	20,302	Nov. 3	57	550
Norwich Pharmacal Company, Norwich and New York, N. Y. Liquid throat-medicine	20,083	Aug. 25	56	932

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Notter Coffee Company, J. G., Quincy, Ill. Coffee	19,442	May 5	55	578
Null, Napoleon B., Ruston, La. Plant-tonics and insect-destroyers	20,350	Nov. 10	57	699
Nutrimet Company, Chicago, Ill. Milk-coagulating products	19,493	May 12	55	720
O'Meara, John U., Washington, D. C. Rock-candy flavored for use in cordials	19,126	Mar. 3	54	1118
Oehler, K., Offenbach-on-the-Main, Germany. Aniline and other tar dye-stuffs	19,375	Apr. 21	55	291
Old Castle Iron and Tinplate Company, Limited, Llanelly, England. Tin plates,terne plates, and tin taggers	19,025	Feb. 17	54	821
Old Castle Iron and Tinplate Company, Limited, Llanelly, England. Tin plates,terne plates, and tin taggers	19,026	Feb. 17	54	821
Old Castle Iron and Tinplate Company, Limited, Llanelly, England. Tin plates,terne plates, and tin taggers	19,027	Feb. 17	54	821
Old Castle Iron and Tinplate Company, Limited, Llanelly, England. Tin plates,terne plates, and tin taggers	19,028	Feb. 17	54	822
Old Castle Iron and Tinplate Company, Limited, Llanelly, England. Tin plates,terne plates, and tin taggers	19,029	Feb. 17	54	821
Old Castle Iron and Tinplate Company, Limited, Llanelly, England. Tin plates,terne plates, and tin taggers	19,247	Mar. 31	54	1717
Ordway, George F., Boston, Mass. Peculiar species of candy	20,074	Aug. 25	56	932
Orient Manufacturing Company, Long Beach and New York, N. Y. Alum	18,810	Jan. 6	54	3
Oskamp, Clemens, Omaha, Nebr. Meal	19,234	Mar. 31	54	1717
Osmun, Charles A. (See Michael and Osmun.)				
Ostateg, William, Chicago, Ill. Fruits and nuts	20,400	Nov. 24	57	1006
Ostrom & Lincoln, Bridgeport, Conn. Toilet soap	19,240	Mar. 31	54	1717
Ottoman Cahvey Company, Chicago, Ill. Baking-powder	20,151	Sept. 22	56	1452
Oyster Cultivation and Canning Company, Brunswick, Ga. Canned fish, fruits, and vegetables	18,789	Jan. 6	54	3
Pacific Soap and Chemical Co., Tacoma, Wash. Washing compound	20,234	Oct. 20	57	278
Page, James P., New York, N. Y. Sewing-machines and attachments	19,128	Mar. 3	54	1118
Page, Samuel F., New York, N. Y. Salves	20,011	Aug. 11	56	666
Pailard & Co., M. J., New York, N. Y. Music-boxes	18,775	Jan. 6	54	2
Paine, Thomas, Dallas, Tex. Line of proprietary medicines	19,037	Feb. 17	54	822
Pairpoint Manufacturing Company, New Bedford, Mass., New York, N. Y., Chicago, Ill., and San Francisco, Cal. Metallic receptacles for table and hand use, including bonbonnières	19,662	June 2	55	1148
Palmer & Capron, Providence, R. I., and New York, N. Y. Finger-rings	19,459	May 12	55	719
Palmer & Capron, Providence, R. I., and New York, N. Y. Plated finger-rings	19,460	May 12	55	719
Palmer & Capron, Providence, R. I., and New York, N. Y. Plated finger-rings	19,827	June 30	55	1658
Palmer & Capron, Providence, R. I., and New York, N. Y. Plated finger-rings	19,828	June 30	55	1658
Palmer, Henry N., New York, N. Y. Bath-robos	19,798	June 30	55	1657
Palmer, Solon, New York, N. Y. Perfumery and soap	19,721	June 16	55	1404
Palmur, States D., Marshalltown, Iowa. Carts and carriages	20,213	Oct. 13	57	128
Panacea Springs and Hotel Company, Raleigh, N. C. Mineral water	18,960	Feb. 10	54	666
Pape, Charles H., St. Louis, Mo. Hair-restoratives	19,169	Mar. 10	54	1270
Parker, John H., Boston, Mass. Hosiery	18,924	Feb. 3	54	510
Parry, George, Chicago, Ill. Teething and soothing powders	20,026	Aug. 11	56	666
Parsons Low-Down Wagon Company, Earlville and New York, N. Y. Low-down wagons for milkmen, bakers, &c.	20,179	Sept. 29	56	1568
Pasteur Chemical Co., Springfield, Ill. Antiseptic	19,897	July 21	56	266
Patton, Alexander G., Columbus, Ohio. Kitchen-stove furniture	19,127	Mar. 3	54	1118
Paul Whitin Manufacturing Company, Northbridge, Mass. Shirtings and fine cambrics	19,882	July 14	56	146
Paul Whitin Manufacturing Company, Northbridge, Mass. Shirtings and fine cambrics	19,910	July 21	56	266
Paulsen & Co., Fredrik, New York, N. Y., and Chicago, Ill. Cod-liver oil	20,406	Nov. 24	57	1006
Payne & Jackson, Drake's Branch, Va. Plug-tobacco	19,528	May 19	55	871
Peabody & Co., Henry W., Boston, Mass. Refined petroleum	19,469	May 12	55	720
Peacnbrow Sandstone Company, Glenwood Springs, Colo. Brown or red sandstone	20,166	Sept. 22	56	1452
Pech Manufacturing Company, Storm Lake, Iowa. Rotary windmills	20,085	Aug. 25	56	932
Peltzer & Son, Verviers, Belgium. Billiard-cloth	19,733	June 16	55	1404
Pepper & Co., James E., Lexington, Ky. Whisky	19,075	Feb. 24	54	964
Pepper & Co., James E., Lexington, Ky. Whisky	19,076	Feb. 24	54	964
Pepper & Co., James E., Lexington, Ky. Whisky	19,705	June 16	55	1404
Pepper, Thomas E., Lexington, Ky. Whisky	20,205	Oct. 6	57	2
Percival & Co., D. C., Boston, Mass. Vest-chains	19,011	Feb. 10	54	667
Percival & Co., D. C., Boston, Mass. Vest-chains	19,012	Feb. 10	54	667
Percival & Co., D. C., Boston, Mass. Opera, marine, and field glasses and lenses	19,023	Feb. 17	54	821
Percival & Co., D. C., Boston, Mass. Vest-chains	19,283	Apr. 7	55	3
Percival & Co., D. C., Boston, Mass. Imitation diamonds	19,284	Apr. 7	55	3
Perkins, Pembroke C., Pittsburg, Pa. Patterns for cutting garments	19,042	Feb. 17	54	822
Perkins, William M., New York, N. Y. Bank and note paper and the like	20,391	Nov. 17	57	850
Perré & Co., Eugène, Rheims, France. Champagne	18,790	Jan. 6	54	3
Petrolene Compound Co., Columbia, Mo. Ointment	19,741	June 23	55	1534
Pettijohn, William A., Minneapolis, Minn. Rolled wheat	19,398	Apr. 21	55	292
Pfeiffer & Diller, Horschheim, near Worms, Germany. Coffee-essence	20,130	Sept. 15	56	1340
Ph. Zang Brewing Company, Denver, Colo. Ale and beer	19,888	July 14	56	146
Phillips Insulated Wire Co., Pawtucket, R. I. Insulated conducting-wires	20,339	Nov. 10	57	698
Phillips, Nunes & Co., Dafen, Llanelly, England. Tin plates	18,981	Feb. 10	54	667
Phillips, Nunes & Co., Llanelly, England. Tin plates	19,455	May 12	55	719
Phillips, Nunes & Co., Llanelly, England. Tin plates	19,456	May 12	55	719
Phillips, Nunes & Co., Llanelly, England. Tin plates	19,457	May 12	55	719
Phillips, Nunes & Co., Llanelly, England. Tin plates	19,458	May 12	55	719
Phillips, Nunes & Co., Llanelly, England. Tin plates	19,661	June 2	55	1148
Pierce, Henry L., Boston, Mass. Sweet chocolate	19,892	June 30	55	1657
Pierce, Henry L., Boston, Mass. Breakfast-cocoa	20,319	Nov. 3	57	551
Pilling & Madeley, Philadelphia, Pa. Hosiery	19,129	Mar. 3	54	1118
Pillsbury, Charles A., Minneapolis, Minn. Wheat-flour	19,772	June 30	55	1656
Piper, Doremus & Co., New York, N. Y. Bronze-powder	20,444	Dec. 8	57	1284
Pitcher, George S., Nashville, Tenn. Remedy for diseases of the liver	20,445	Dec. 8	57	1284
Pittman & Harrison, Sherman, Tex. Grain	18,937	Feb. 3	54	511
Plouf, John E., Seattle, Wash. Remedy for the cure of rheumatism	20,224	Oct. 13	57	128
Pommery, Fils & Co., Venre, Rheims, France. Champagne	19,900	July 21	56	266
Pommery, Fils & Co., Venre, Rheims, France. Champagne	19,901	July 21	56	266
Pontypool Iron and Tinplate Company, Limited, Pontypool, England. Tin plates and terne plates	19,248	Mar. 31	54	1717
Pontypool Iron and Tinplate Company, Limited, Pontypool, England. Tin plates and terne plates	19,249	Mar. 31	54	1717
Pontypool Iron and Tinplate Company, Limited, Pontypool, England. Tin plates	19,250	Mar. 31	54	1717
Pontypool Iron and Tinplate Company, Limited, Pontypool, England. Tin plates	19,251	Mar. 31	54	1717
Pool, Richard N., New York, N. Y. Certain named remedies	20,534	Dec. 29	57	1726
Pope's Island Manufacturing Corporation, New Bedford, Mass. Metal in bars and harness-trimmings	19,636	June 2	55	1147

Alphabetical list of registrants of trade-marks—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
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Porous Waterproofing Co., Philadelphia, Pa. Water-proof fabrics and garments	19,191	Mar. 17	54	1422
Port Talbot Tinplate Company, Limited, Port Talbot, England. Tin-plate in sheets	18,999	Feb. 10	54	667
Port Talbot Tinplate Company, Limited, Port Talbot, England. Tin-plate in sheets	19,000	Feb. 10	54	667
Port Talbot Tinplate Company, Limited, Port Talbot, England. Tin-plate in sheets	19,057	Feb. 17	54	822
Portland Packing Co., Portland, Me. Canned fruits, vegetables, meat, and fish	19,630	June 2	55	1146
Portland Packing Co., Portland, Me. Canned fruits, vegetables, meat, and fish	19,621	June 2	55	1146
Portland Packing Co., Portland, Me. Canned fruits, vegetables, meat, and fish	19,622	June 2	55	1146
Portland Packing Co., Portland, Me. Canned fruits, vegetables, meat, and fish	19,623	June 2	55	1146
Portland Packing Co., Portland, Me. Canned fruits, vegetables, meat, and fish	19,624	June 2	55	1147
Portland Packing Co., Portland, Me. Canned fruits, vegetables, meat, and fish	19,625	June 2	55	1147
Portland Packing Co., Portland, Me. Canned fruits, vegetables, meat, and fish	20,469	Dec. 15	57	1432
Potter & Co., J., Clinton, Mass. Remedy for the blood	19,217	Mar. 24	54	1566
Portz, David G., Philadelphia, Pa. Remedy for blood and liver diseases	19,260	Mar. 31	54	1718
Poseldon Co., Seaforth, England. Medicine for the prevention of seasickness	20,134	Sept. 15	56	1340
Post, Ezra L., New York, N. Y. Babbitt metal	19,773	June 30	55	1656
Powell & Bro., Philadelphia, Pa. Hosiery	20,494	Dec. 22	57	1600
Prange, Leo, Brooklyn, N. Y. Glass and jet buttons	18,776	Jan. 6	54	2
Prange, Leo, Brooklyn, N. Y. Jet buttons	18,874	Jan. 20	54	270
Prange, Leo, Brooklyn, N. Y. Jet buttons	18,875	Jan. 20	54	270
Prange, Leo, Brooklyn, N. Y. Jet buttons	18,876	Jan. 20	54	270
Prange, Leo, Brooklyn, N. Y. Jet buttons	20,303	Nov. 3	57	550
Preston, Everett B., Chicago, Ill. Rubber boots and shoes	20,012	Aug. 11	56	666
Preston, Everett B., Chicago, Ill. Rubber boots and shoes	20,013	Aug. 11	56	666
Price, Emma, Baltimore, Md. Liquid cosmetic	20,257	Oct. 27	57	416
Prien, Henry F., and W. M. Gray, San Diego, Cal. Cough drops or tablets	20,320	Nov. 3	57	551
Printz & Co., Georg, Aachen, Prussia, Germany. Sewing-needles	19,196	Mar. 17	54	1422
Procter & Gamble, Hamilton County, Ohio. Laundry soap	19,188	Mar. 17	54	1422
Procter & Gamble, Hamilton County, Ohio. Laundry soap	19,189	Mar. 17	54	1422
Procter & Gamble Company, Cincinnati, Ohio. Soap	19,724	June 16	55	1404
Procter & Gamble Company, Cincinnati, Ohio. Soap	19,725	June 16	55	1404
Protection Papier Co., Philadelphia, Pa. Certain named remedies	19,170	Mar. 10	54	1270
Protection Papier Co., Philadelphia, Pa. Certain named remedies	19,647	June 2	55	1147
Provident Chemical Works, St. Louis, Mo., and New York, N. Y. Phosphate for use in manufacturing sugar	19,206	Mar. 24	54	1566
Prue & Moores, Alexander, N. Y. Remedies for coughs, colds, and consumption	19,545	May 19	55	871
Prunine Medicine Company, North Bend, Nebr. Remedy for coughs, colds, constipation, and diseases of the blood	18,791	Jan. 6	54	3
Purtle, Catharine A., Erie, Pa. Certain named remedies	19,077	Feb. 24	54	964
Q. and C. Company, Portland, Me., and Chicago, Ill. Certain articles of railway equipment	20,084	Aug. 25	56	932
Quaker City Morocco Company, Philadelphia, Pa. Kid and morocco leather	20,418	Dec. 1	57	1136
Quaker Medical Association, St. Paul, Minn. Remedies for diseases of the stomach and bowels	19,930	July 28	56	402
R. T. Davis Mill Company, St. Joseph, Mo. Wheat-flour	19,794	June 30	55	1657
R. T. Davis Mill Company, St. Joseph, Mo. Wheat-flour	19,877	July 14	56	146
R. T. Davis Mill Company, St. Joseph, Mo. Wheat-flour	19,878	July 14	56	146
R. T. Davis Mill Company, St. Joseph, Mo. Wheat-flour	19,890	July 21	56	266
Rabell, Prudencio, Havana, Cuba. Cigarettes and cut tobacco	20,203	Oct. 6	57	2
Rabell, Prudencio, Havana, Cuba. Cigarettes and cut tobacco	20,204	Oct. 6	57	2
Rabell, Prudencio, Havana, Cuba. Cut tobacco and cigarettes	20,437	Dec. 1	57	1136
Racine & Co., Jules, New York, N. Y., and Chicago, Ill. Watches	18,841	Jan. 13	54	142
Racine & Co., Jules, New York, N. Y., and Chicago, Ill. Watches	18,842	Jan. 13	54	142
Rafael G. Marques Co., Limited, Havana, Cuba. Cigars	19,372	Apr. 21	55	291
Rafael G. Marques Co., Limited, Havana, Cuba. Cigars	19,373	Apr. 21	55	291
Rafael G. Marques Co., Limited, Havana, Cuba. Cigars	19,374	Apr. 21	55	291
Ragio, William P. T., Nashville, Tenn. Hair-tonic	19,197	Mar. 17	54	1422
Raleigh Cycle Company, Limited, Nottingham, England. Velocipedes	19,881	July 14	56	146
Ramirez, Angel, Havana, Cuba. Cigars	19,376	Apr. 21	55	291
Rand & Crane, Boston, Mass. Solid and plated spoons, forks, and table-ware	19,436	May 5	55	578
Rand & Crane, Boston, Mass. Silver and silver-plated table-cutlery	19,659	June 2	55	1148
Rankin, Jesse W., Atlanta, Ga. Alternative compound	20,316	Nov. 3	57	551
Rassiniere & Co., Adolph, Louisville, Ky. Whisky	19,437	May 5	55	578
Raynolds & Co., C. T., New York, N. Y. Paints and colors	19,490	May 12	55	720
Raynolds & Co., C. T., New York, N. Y. Paint	19,491	May 12	55	720
Rea, William D., Louisville, Ky. Liquid expectorants	19,424	May 5	55	578
Read, William F., Philadelphia, Pa. Dress-goods and umbrella-coverings	18,828	Jan. 20	54	270
Reading Hardware Company, Reading, Pa. Builders' miscellaneous hardware, excluding locks and latches	19,658	June 2	55	1147
Redbrook Tinplate Company, Limited, London, England. Tin, terne, zinc, and black plates	19,303	Apr. 7	55	4
Redbrook Tinplate Company, Limited, London, England. Tin, terne, zinc, and black plates	19,304	Apr. 7	55	4
Redbrook Tinplate Company, Limited, London, England. Tin, terne, zinc, and black plates	19,305	Apr. 7	55	4
Reed & Carnrick, New York, N. Y. Antiseptic and detergent compound	20,193	Oct. 6	57	2
Reed & Carnrick, New York, N. Y. Remedy for rheumatism and gouty diathesis	20,194	Oct. 6	57	2
Reed & Carnrick, New York, N. Y. Tablets for dissolving in water to form a beverage	20,401	Nov. 24	57	1006
Reh & Co., Berlin, Germany. Bituminous paints	20,113	Sept. 8	56	1208
Reichardt, George, New York, N. Y. Laundry-soap	20,149	Sept. 15	56	1340
Reid, James F., and J. H. Ulrich, Decatur, Ill. Veterinary remedies	20,454	Dec. 8	57	1284
Reid, James F., and J. H. Ulrich, Decatur, Ill. Veterinary remedies	20,455	Dec. 8	57	1284
Reinhold, William H., Centralia, Pa. Medicated wines	20,479	Dec. 22	57	1600
Reist, Nissly & Co., Mount Joy, Pa. Butter	18,812	Jan. 6	54	3
Renzehansen, Frederick C. (See Large and Renzehansen.)				
Requardt, Bertha J., Baltimore, Md. Tonic for the hair	19,546	May 19	55	871
Riesaf Mining Company, York and New York, N. Y. Salt	19,141	Mar. 3	54	1118
Rether Allen Company, Paterson, N. J., and New York, N. Y. Silk dress goods and broad silks	20,458	Dec. 8	57	1284
Renther Leopold, New York, N. Y. Whisky and brandy	18,811	Jan. 6	54	3
Revere Rubber Company, Boston, Mass. Hose, belting, and packing for machinery	19,078	Feb. 24	54	964
Revere Rubber Company, Boston, Mass. Hose, belting, and packing for machinery	19,558	May 19	55	872
Revere Rubber Company, Boston, Mass. Rubber tubing for electrical purposes	19,607	May 26	55	1003
Revere Rubber Company, Boston, Mass. Mechanical rubber goods	19,752	June 23	55	1524
Revere Rubber Company, Boston, Mass. Composition packing	20,135	Sept. 15	56	1340
Reynier, Firm of, Grenoble, France. Gloves	20,248	Oct. 20	57	278
Rheinstrom Bros., Cincinnati, Ohio. Whisky	18,983	Feb. 10	54	667
Rhode & Hoffmann, Galveston, Tex. Cigars	19,931	July 28	56	402
Rice & Hutchins, Boston, Mass. Boots and shoes	18,971	Feb. 10	54	666
Richards Medicine Co., A. B. Sherman, Tex. Castor-oil	18,925	Feb. 3	54	510
Richmond, Samuel A., Tuscola, Ill. Remedy for epilepsy and other nervous diseases	19,152	Mar. 10	54	1270

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Richmond, Samuel A., Tuscola, Ill. Remedy for epilepsy and other nervous diseases	19,722	June 16	55	1404
Richmond, Samuel A., Tuscola, Ill. Medicines for nervous diseases	19,774	June 30	55	1656
Rickerby, Alfred M., Brooklyn, N. Y. Malt liquors	19,207	Mar. 24	51	1566
Rickerby, Alfred M., Brooklyn, N. Y. Malt liquors	19,208	Mar. 24	51	1566
Ridley & Sons, Edward, New York, N. Y. Sewing-machines	20,536	Dec. 29	57	1726
Riedel, the firm of, J. D., Berlin, Germany. Antipyretics	19,043	Feb. 17	54	822
Riehman & Peterson, Newark, N. J. Cigars	18,970	Feb. 10	51	666
Riley & Co., W. B., Philadelphia, Pa. Horse-blankets	19,944	July 23	56	402
Rimmer, Emma, Chicago, Ill. Toilet soaps and lotions	19,244	Mar. 31	54	1717
Ritchie & Eason, Manchester, England. Tracing-cloth	19,051	Feb. 17	54	822
Ritter & Co., C. H., Detroit, Mich. Whisky	19,898	July 21	56	266
Rivard, Joseph M., Fairchild, Wis., and G. W. Godfrey, St. Paul, Minn. Compound for preserving eggs	19,626	June 2	55	1147
Robbins, Frances A., Nahant, Mass. Cough-sirup and cough-drops	19,142	Mar. 3	54	1118
Robert Smith India Pale Ale Brewing Company, Philadelphia, Pa. Malt extract	20,466	Dec. 15	57	1432
Robert, William H., Jr., Denison, Tex. Remedy for chapped face and hands	19,399	Apr. 21	55	292
Roberts, Mary N., Chicago, Ill. Pomade for the complexion	18,944	Feb. 3	54	511
Roberts, Mary N., Chicago, Ill. Lotion for the complexion	20,317	Nov. 3	57	551
Roberts & Whitcomb, Indianapolis, Ind. Candy	20,358	Nov. 10	57	699
Robertson, John, Philadelphia, Pa. Remedy for nervous diseases	18,958	Feb. 10	54	666
Robertson, John, Philadelphia, Pa. Remedy for nervous diseases	20,318	Nov. 3	57	551
Robin & Co., Jules, Cognac, France. Brandy	19,409	Apr. 23	55	436
Robin & Co., Jules, Cognac, France. Cognac	19,606	May 26	55	1003
Robin & Co., Jules, Cognac, France. Brandy	20,184	Oct. 6	57	2
Robinson, Louis, New York, N. Y. Liquid medicine for the cure of erysipelas	20,535	Dec. 29	57	1726
Robison, Charles W. (See Robison, Samuel D., C. W., and R. B.)				
Robison, Charles W. and R. B., Pittsburg, Pa. Liquid extract of beef	18,957	Feb. 10	54	666
Robison, Robert B. (See Robison, Charles W. and R. B.)				
Robison, Robert B. (See Robison, Samuel D., C. W., and R. B.)				
Robison, Samuel D., C. W., and R. B., Pittsburg, Pa. Skin and scalp soap	20,165	Sept. 22	56	1452
Rochester Lamp Company, New York, N. Y. Burners for central-draft lamps	19,479	May 12	55	720
Rockford Shoe Company, Rockford, Ill. Boots and shoes	19,516	May 19	55	870
Roden & Co., Vinson S., Sand Mountain, Ala. Line of proprietary medicines	19,391	Apr. 21	55	292
Rodgers & Co., John L., Baltimore, Md. Flour	19,879	July 14	56	146
Rodgers & Co., John L., Baltimore, Md. Flour	20,075	Aug. 25	56	932
Roe, Frederick A., London, England. Carbolic smoke ball for the cure of influenza, colds, catarrh, headache, and hay-fever	20,249	Oct. 20	57	278
Rogers & Pratt, New York, N. Y. Carbolic acid	20,340	Nov. 10	57	698
Rogers, Sullivan W., Harwich, Mass. Remedy for stomach, liver, kidney, and other troubles	20,292	Nov. 3	57	550
Rosenberg, Herman, Richmond, Va. Cheroots	19,435	May 5	55	578
Rosenberg, Morris, Philadelphia, Pa. Remedy for rheumatism and kindred ailments	19,130	Mar. 3	54	1118
Rossendale Belting Company, Newark, N. J. Driving-belts	19,470	May 12	55	720
Rosser, Son & Co., Richard, Cilfrew, near Neath, England. Tin-plate	18,994	Feb. 10	54	667
Rosser, Son & Co., Richard, Cilfrew, near Neath, England. Tin-plate in sheets	18,995	Feb. 10	54	667
Royal Remedy and Extract Company, Dayton, Ohio. Chewing-gum	19,021	Feb. 17	54	821
Royle, John J., Manchester, England. Wash-basins and pitchers	19,492	May 12	55	720
Ruhl, Adolph J., Houghton, Mich. Remedy for headache, neuralgia, la grippe, nervousness, sleeplessness, and to reduce temperature	20,502	Dec. 29	57	1726
Russ, Eveleth & Ingalls, Boston, Mass., and New York, N. Y. Worsted and muslin garments, underwear, and knit goods	19,224	Mar. 24	54	1566
Rutledge, William, Boston, Mass. Ale	18,956	Feb. 10	54	666
Ryan Chemical Company, Springfield, Ill. Cough-sirup and liver-pills	19,648	June 2	55	1147
Saavedra, José, Havana, Cuba. Cigars	18,877	Jan. 20	54	270
Saavedra, José, Havana, Cuba. Cigars	18,878	Jan. 20	54	270
Saavedra, José, Havana, Cuba. Cigars	18,879	Jan. 20	54	270
Saavedra, José, Havana, Cuba. Cigars	18,880	Jan. 20	54	270
Saavedra, José, Havana, Cuba. Cigars	18,881	Jan. 20	54	270
Sabine Curative Oil Co., Warren, Pa. Oil or liniment for bruises, chilblains, and similar troubles	19,992	Aug. 4	56	532
Salomon & Bros., Gustav, New York, N. Y. Leaf-tobacco	20,352	Nov. 10	57	699
Samper & Co., S., New York, N. Y. Wheat-flour	19,627	June 2	55	1147
Sandage Steel Skein Company, South Bend, Ind. Wrought-steel wagon-skeins	20,389	Nov. 17	57	850
Sargent, Renzo T., Clinton, Mass. Stove-polish	19,799	June 30	55	1657
Saxton, William H., Jr., New London, Conn. Gold, silver, and plated flat and table ware	20,327	Nov. 3	57	551
Schaltin, Pierry & Co., Spa, Belgium. Spirituous liquor	19,991	Aug. 4	56	532
Scheel, William H., New York, N. Y. Varnish-gums	19,158	Mar. 10	54	1270
Scheffler, Johanna M., New York, N. Y. Hair-dye	19,349	Apr. 14	55	145
Schendel, Moritz, Boston, Mass. Cigars	20,420	Dec. 1	57	1136
Schild Frères & Co., Granchen, Switzerland. Watch movements and cases	19,405	Apr. 28	55	436
Schindele, Abraham. (See Davis and Schindele.)				
Schmidt, Charles M., Buffalo, N. Y. Insect-powder	19,056	Feb. 17	54	822
Schmidt, Waldemar A., Pittsburg, Pa. Poison for insects	19,853	July 7	56	2
Schmitt, George J., Chicago, Ill. Insecticide	20,419	Dec. 1	57	1136
Schoureck, Frank, New York, N. Y. Rat-poison	19,472	May 12	55	720
Schwarz, Nathan, Berlin, Germany. Anti-apoplectic water	19,559	May 19	55	872
Schweinburg, Emil, New York, N. Y. Corsets	20,304	Nov. 3	57	550
Schweppe & Co., Limited, J., London, England. Sarsaparilla beverage	19,132	Mar. 3	54	1118
Scott & Bowne, New York, N. Y. Emulsions and like preparations	19,225	Mar. 24	54	1566
Scott, Lemuel, Wichita, Kans. Liniment	20,388	Nov. 17	57	850
Scott & Roberts Company, Bennington, Vt. Pulp-grinders	19,916	July 21	56	266
Scottish Drug Depot, Limited, Edinburgh, Scotland. Perfumery, dentifrice, restoratives for the hair, and soap	19,714	June 16	55	1404
Scovill & Adams Company, New Haven, Conn., and New York, N. Y. Photographic cards	18,892	Jan. 20	54	270
Seureman, Martha H., Nanticoke, Pa. Remedy for diseases of the throat, chest, and lungs	20,321	Nov. 3	57	551
Scott, Augustus B., Binghamton, N. Y. Botanical remedy for the blood	20,137	Sept. 15	56	1340
Selby & Co., Seymour D., Villisca, Iowa. Remedy for the cure of rheumatism, neuralgia, and similar complaints	19,547	May 19	55	871
Sellers & Sons, John, New York, N. Y., and Sheffield, England. Razors	19,143	Mar. 3	54	1118
Sercombe, Orville C., Louisville, Ky. Cordials and tonics	19,339	Apr. 14	55	144
Shannon, Charles B. (See Shannon, Samuel H. and C. B.)				
Shannon, Samuel H. and C. B., Boston, Mass. Lubricating oil or grease	20,155	Sept. 22	56	1452
Sharp & Dohme, Baltimore, Md. Fluid medicines containing pepsin, pancreatine, caffeine, and colery	19,425	May 5	55	578
Sharples, Philip M., West Chester, Pa. Centrifugal creamers	19,757	June 23	55	1534
Sharpless Bros., Philadelphia, Pa. Twilled cotton cloth	19,360	Apr. 14	55	145

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Sharpless Bros., Philadelphia, Pa. Silk and wool fabrics	19,361	Apr. 14	55	145
Shaw & Co., A. W., Freeport, Me. Calf shoes	20,365	Nov. 10	57	699
Shaw, George E., Putnam, Conn. Solid and plated spoons, forks, and table-ware	19,736	June 16	55	1404
Shea, Bocqueraz & Co., San Francisco, Cal. Whisky	20,076	Aug. 25	56	932
Sheffield, Millidge B., Faribault, Minn. Flour	20,480	Dec. 22	57	1600
Sheldon, Walter P., Malden, Mass. Soda-water	19,131	Mar. 3	54	1118
Shull & Co., D. F., Philadelphia, Pa. Antiseptic	19,008	July 21	56	266
Shull, William A., Philadelphia, Pa. Razor-strops	20,399	Nov. 24	57	1006
Siegel & Co., J., Chicago, Ill., Detroit, Mich., and New York, N. Y. Corsets	20,503	Dec. 29	57	1726
Sigsbee Manufacturing Company, Ayer, Mass. Supporters	20,322	Nov. 3	57	551
Silberhorn Company, Sioux City, Iowa, and Chicago, Ill. Lard	18,984	Feb. 10	54	667
Silberhorn Company, Sioux City, Iowa, and Chicago, Ill. Hams, shoulders, sides, and bacon	18,985	Feb. 10	54	667
Silicon Wall Plaster and Manufacturing Company, Kansas City, Mo. Cement and plaster	19,086	Feb. 24	54	964
Silver & Company, New York, N. Y. Oil-stoves	19,985	Aug. 4	56	532
Silver Fern Remedy Co., South Bend, Ind. Remedy for diseases peculiar to women	20,379	Nov. 17	57	850
Silvera & Lopez, New York, N. Y. External medicines and tonics	18,889	Jan. 20	54	270
Silvermann Bros. & Co., Williamsport, Pa., and New York, N. Y. Men's suspenders and braces	20,341	Nov. 10	57	698
Singer, Jasper H., New York, N. Y. Toy games in boxes	19,742	June 23	55	1534
Singer Manufacturing Company, New York, N. Y. Sewing machines and attachments and parts thereof	20,065	Aug. 18	56	808
Singer & Wheeler, Peoria, Ill. Lager-beer	19,990	Aug. 4	56	532
Sinnock & Sherrill, New York, N. Y. Masonic and other society emblems	20,250	Oct. 20	57	278
Smelser, George W., Grass Valley, Oreg. Medicine for nervous affections, fevers, coughs, colds, neuralgia, and for the blood	20,120	Sept. 8	56	1208
Smith Brothers, Fresno, Cal. Remedies for certain named diseases	18,868	July 14	56	146
Smith & Co., H. E., Worcester, Mass. Boots, shoes, and lasts	18,935	Feb. 3	54	511
Smith Company, J. Hungerford, Rochester, N. Y. Flavoring extracts	19,817	June 30	55	1658
Smith, Hogg & Gardner, New York, N. Y., and Boston, Mass. Fabrics of cotton, wool, or mixed cotton and wool	19,080	Feb. 24	54	964
Smith, Kline & French Company, Philadelphia, Pa. Perfumed toilet preparations	19,386	Apr. 21	55	292
Smith, Kline & French Company, Philadelphia, Pa. Perfumed toilet preparations	19,387	Apr. 21	55	292
Smith, Kline & French Company, Philadelphia, Pa. Perfumed toilet preparations	19,388	Apr. 21	55	292
Smith, Kline & French Company, Philadelphia, Pa. Soaps, powders, pomades, and like perfumed toilet preparations	19,579	May 26	55	1002
Smith, Kline & French Company, Philadelphia, Pa. Perfumery, cosmetics, and like toilet preparations	19,651	June 2	55	1147
Smith, John A., South Bend, Ind. Lotion for the face and hands	19,899	July 21	56	266
Smith, Leon B., Houston, Tex. Shirts, drawers, pantaloons, overalls, jerseys, suspenders, and neckties	19,209	Mar. 24	54	1566
Smither, Robert K., Buffalo, N. Y. Disinfectant and insect-destroyer	19,013	Feb. 10	54	667
Snider, George W., Indianapolis, Ind. Leather belting	29,446	Dec. 8	57	1284
Snow, William H., High Point, N. C. Smoking-tobacco	19,692	June 9	55	1280
Sohmer & Co., New York, N. Y. Pianos	20,150	Sept. 15	56	1340
Solidarity Co-Operative Manufacturing Company, Rochester, N. Y. Men's and boys' garments	19,880	July 14	56	146
Sorosis Fruit Company, Santa Clara and San Francisco, Cal. Green, dried, canned, or preserved fruits or vegetables	19,962	Aug. 4	56	532
South Bend Medicine Company, South Bend, Ind., and Chicago, Ill. Cosmetic	19,945	July 28	56	402
Southall Bros. & Barclay, Birmingham, England. Sanitary towels	20,520	Dec. 29	57	1726
Southall Bros. & Barclay, Birmingham, England. Sanitary towels	20,521	Dec. 29	57	1726
Southern Soda Works, Nashville, Tenn. Cooking soda	18,828	Jan. 13	54	142
Southworth Company, Mittineague, Mass. Fine writing-paper	19,461	May 12	55	719
Sowdon, William, New York, N. Y. Game of ten-pins	20,225	Oct. 13	57	128
Spalding & Bros., A. G., Chicago, Ill., and New York, N. Y. Bicycles and tricycles	19,172	Mar. 10	54	1270
Spalding & Bros., A. G., Chicago, Ill., and New York, N. Y. Bicycles and tricycles	19,173	Mar. 10	54	1270
Spaulding & Merrick, Chicago, Ill. Chewing and smoking tobacco	20,351	Nov. 10	57	699
Speidel, Edward, Louisville, Ky. Cough-syrups and blood-purifiers	20,062	Aug. 18	56	808
Spieker, John J., Sacramento, Cal. Kidney and liver bitters	19,346	Apr. 14	55	145
Spieker, John J., Sacramento, Cal. Remedy for rheumatism, neuralgia, and headache	19,517	May 19	55	870
Spring Curry Comb Company, South Bend, Ind. Curry-combs	19,668	June 9	55	1280
St. Charles Evaporated Cream Company, St. Charles, Ill. Evaporated cream	20,328	Nov. 3	57	551
St. Louis Honey-Wine Co., St. Louis, Mo. Soda-water, ginger-ale, and beverages containing honey	18,882	Jan. 20	54	270
St. Louis Stamping Company, St. Louis, Mo. Enameled ware	19,578	May 26	55	1002
Staeb, Catharine A., Cleveland, Ohio. Plasters and salves	19,147	Mar. 3	54	1118
Stallings, David W., Wichita, Kans. Toilet-soap	20,279	Oct. 27	57	416
Standard Car Coupling Company, Troy and New York, N. Y. Car-couplings	19,433	May 5	55	578
Standard Clothing Company, Boston, Mass. Outside garment called an ulster	18,959	Feb. 10	54	666
Standard Coal and Fuel Company, Boston, Mass. Chemicals for increasing the combustion of fuel	19,081	Feb. 24	54	964
Standard Coal and Fuel Company, Boston, Mass. Chemicals for increasing the combustion of fuel	19,580	May 26	55	1002
Standard Distilling Co., Cincinnati, Ohio. Whisky	19,171	Mar. 10	54	1270
Standard Fiber-Ware Company, Mankato, Minn. Hollow ware and household utensils made of fiber	20,214	Oct. 13	57	128
Standard Lighting Company, Cleveland, Ohio. Vapor stoves and burners	19,638	June 2	55	1147
Standard Pearl Button Company, Limited, Detroit, Mich. Pearl buttons	20,472	Dec. 22	57	1600
Stanley Rule and Level Company, New Britain, Conn., and New York, N. Y. Wood-workers' tools and machines	18,792	Jan. 6	54	3
Stanley, Sants W., Great Falls, Mont. Liniment	20,181	Sept. 29	56	1568
Stanton & Company, Chicago, Ill. Whisky	18,946	Feb. 3	54	511
Star Manufacturing Company, Atlanta, Ga. Baking powder	19,735	June 16	55	1404
Steinhart, Simon, New Orleans, La. Cotton-seed meal	19,932	July 28	56	402
Stemmler, Theodore W., New York, N. Y., Paris, France, and London, England. Sardines, chocolate, preserves, and mushrooms	19,438	May 5	55	578
Stephen Thompson & Company, (Limited.) near Wolverhampton, England. Tin,terne, and black sheets, plates and taggers, and Canada sheets and plates	20,293	Nov. 3	57	550
Steppacher, Walter M., Philadelphia, Pa. Shirts	19,471	May 12	55	730
Steward & Merriam, Peoria, Ill. Rolled oats and cracked wheat	20,429	Dec. 1	57	1136
Stewart, Samuel S., Philadelphia, Pa. Banjos and banjo-strings	20,378	Nov. 17	57	850
Stiegerwald, Andrew S., Philadelphia, Pa. Face-powders and prepared chalk	19,087	Feb. 24	54	964
Stiles, Noel W., Boston, Mass. Corn-salve	19,210	Mar. 24	54	1566
Stoeckel, Jennie R., New York, N. Y. Stove-polish	19,082	Feb. 24	54	964
Stott Garden Implement Company, New York, N. Y. Insecticide	20,510	Dec. 29	57	1726
Strasburger & Co., Byron L., New York, N. Y. Watch movements and cases	19,044	Feb. 17	54	822
Strasburger & Co., Byron L., New York, N. Y. Watch movements and cases	19,045	Feb. 17	54	822
Strasburger & Co., Byron L., New York, N. Y. Watch movements and cases	19,046	Feb. 17	54	822
Strasburger & Co., Byron L., New York, N. Y. Watch movements and cases	19,047	Feb. 17	54	822

Alphabetical list of registrants of trade-marks—Continued.

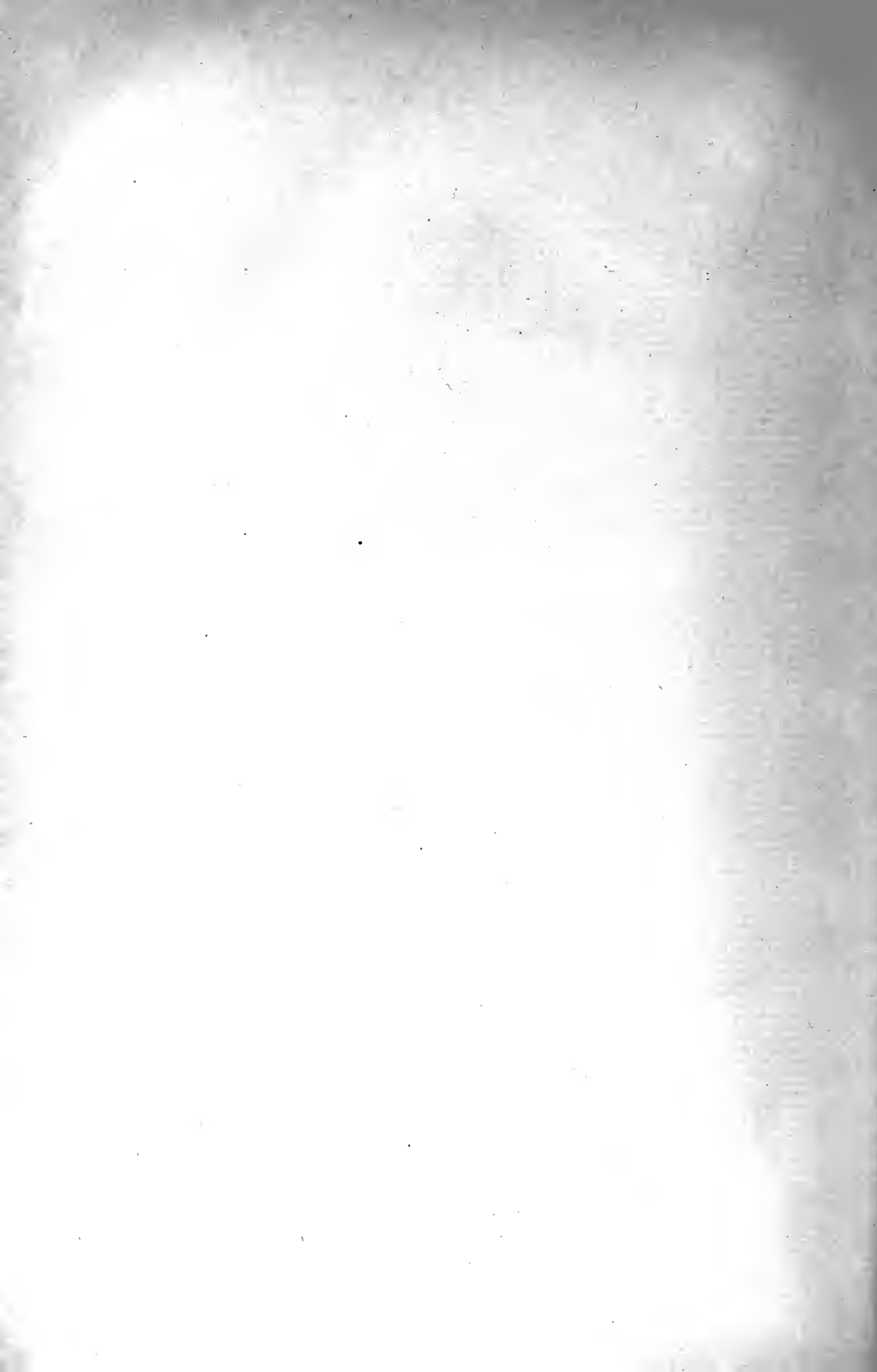
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Strasburger & Co., Byron L., New York, N. Y. Watch movements and cases.....	19,079	Feb. 24	54	964
Strawson, George F., Newbury, England. Pneumatic distributor for sowing grain, &c.....	20,481	Dec. 22	57	1600
Streit & Co., Samuel, New York, N. Y. Whisky.....	20,206	Oct. 13	57	128
Strong, Charles E., Huntington, Mass. Scythe-stones.....	20,131	Sept. 15	56	1340
Struller, Meyer & Schumacher, New York, N. Y. Shovels, axes, hatchets, and hoes.....	19,439	May 5	55	578
Suarez, Cayetano, Havana, Cuba. Cigars.....	19,377	Apr. 21	55	291
Suarez, Cayetano, Havana, Cuba. Cigars.....	19,378	Apr. 21	55	291
Suarez, Cayetano, Havana, Cuba. Cigars.....	19,379	Apr. 21	55	291
Suarez y Gonzalez, Benito, Havana, Cuba. Cigars.....	18,861	Jan. 20	54	270
Suarez y Gonzalez, Benito, Havana, Cuba. Cigars.....	18,862	Jan. 20	54	270
Suarez y Gonzalez, Benito, Havana, Cuba. Cigars.....	19,507	May 12	55	720
Suarez y Gonzalez, Benito, Havana, Cuba. Cigars.....	19,596	May 26	55	1003
Suarez y Gonzalez, Benito, Havana, Cuba. Cigars.....	20,435	Dec. 1	57	1136
Suarez y Gonzalez, José, Havana, Cuba. Cigars.....	19,285	Apr. 7	55	3
Suarez y Gonzalez, José, Havana, Cuba. Cigars.....	19,286	Apr. 7	55	3
Sumser, John H., Louisville, Ky. Remedies for catarrhal affections.....	19,861	July 7	56	2
Sumser, John H., Louisville, Ky. Remedies for catarrhal affections and other mucous diseases.....	20,195	Oct. 6	57	2
Sun I See Oil Company, Racine, Wis. Medicine for external application.....	18,947	Feb. 3	54	511
Sunbeam Incandescent Lamp Company, Chicago, Ill. Incandescent electric lamps.....	18,931	Feb. 3	54	511
Superior Furnace Company, Little Falls, N. Y. Steam and hot-water heaters and furnaces.....	19,198	Mar. 17	54	1422
Superior Horse Foot Oil Company, Chicago, Ill. Liniments, ointments, salves, and condition-powders for horses.....	19,473	May 12	55	720
Sutliff & Co., Peoria, Ill. Cure for constipation.....	20,119	Sept. 8	56	1208
Sutliff & Co., Peoria, Ill. Remedy for headache, rheumatism, neuralgia, and pains in the chest and stomach.....	20,500	Dec. 22	57	1600
Swartwout, Emma J., Newark, N. J. Corsets, waists, and shoulder-braces.....	19,093	Feb. 24	54	964
Sweeting, Sherman C. (See Sweeting, William H. and S. C.).....				
Sweeting, William H. and S. C., Savannah, N. Y. Headache remedy.....	19,038	Feb. 17	54	822
Sylvester, Bell & Co., New York, N. Y. Woven cotton and silk goods and hosiery.....	19,592	May 26	55	1003
Tack, William, Hilton, N. J. Remedy for toothache, neuralgia, and other nervous diseases.....	19,165	Mar. 10	54	1270
Talcott, Walter O., Providence, R. I. Hooks for machine-beltting.....	18,973	Feb. 10	54	666
Talford, John, Brooklyn, N. Y. Bitters.....	19,893	July 21	56	266
Tarr & Bro., James G., Gloucester, Mass. Whole, cut, and boneless fish.....	19,835	June 30	55	1658
Taylor, Augustus L., and S. A. Way, Hawkinsville, Ga. Eye-water.....	19,415	May 5	55	577
Taylor, Ira, New York, N. Y. Articles treated or coated with litho-carbon.....	19,083	Feb. 24	54	964
Taylor, W. Scott, Trenton, N. J. Headache-powders.....	19,426	May 5	55	578
Teilo Tin-Plate Co., Limited, Pontardulais, England. Tin plates.....	19,804	June 30	55	1657
Teilo Tin-Plate Co., Limited, Pontardulais, England. Tin plates.....	19,805	June 30	55	1657
Teilo Tin-Plate Co., Limited, Pontardulais, England. Tin plates.....	19,806	June 30	55	1657
Telfair, William G., New York, N. Y. Cough mixture.....	20,063	Aug. 18	56	808
Terra Firma Soap Co., Washington, D. C. Soap for the feet.....	19,663	June 2	55	1148
Tettelbach, John, Cleveland, Ohio. Cooking-ranges.....	18,891	Jan. 20	54	270
Thies, Carl A., Haile Gold Mine, S. C. Salve.....	19,529	May 19	55	871
Thill, Susan T., Minneapolis, Minn. Hair-restorative.....	20,215	Oct. 13	57	128
Thomas & Co., Jenkin D., Ystalyford, near Swansea, England. Tin andterne plates.....	19,909	July 21	56	266
Thompson, Edgar. (See Laurie and Thompson.).....				
Thompson, George W., New York, N. Y. Wrapping-paper.....	19,963	Aug. 4	56	532
Thompson, John B., Harrodsburg, Ky. Whisky.....	20,035	Aug. 18	56	808
Thompson, John B., Harrodsburg, Ky. Whisky.....	20,036	Aug. 18	56	808
Thompson Milling Company, Lockport, N. Y. Flour.....	18,890	Jan. 20	54	270
Thompson Milling Company, Lockport, N. Y. Wheat-flour.....	19,952	July 28	56	402
Thompson, Wm. & P., New York, N. Y., and Dublin, Ireland. Compound for refining, purifying, and mellowing spirituous liquors.....	19,024	Feb. 17	54	821
Thomson, William S., London, England. Perfumery, soaps, washes, and lotions.....	19,024	Feb. 24	54	964
Thomson, William S., London, England. Soap, perfumery, cosmetics, and like toilet preparations.....	19,151	Mar. 10	54	1270
Thewless Aluminum Syndicate, Newark, N. J. Valuable metals including aluminum, bronze, and magnesium.....	20,329	Nov. 3	57	551
Thumm, Charles F., Pittsburg, Pa. Petroleum products.....	19,602	May 26	55	1003
Thunherst, Henry F., Cleveland, Ohio. Vermicelli and noodles.....	19,864	July 7	56	2
Thurmond Car Coupling Company, New York, N. Y. Car-coupling.....	19,889	July 14	56	146
Tide Water Oil Company of Georgia, Savannah, Atlanta, Macon, and Augusta, Ga., and Charleston, S. C. Illuminating-oil.....	19,297	Apr. 7	55	3
Tilton Mills, Tilton, N. H. Woven wool fabrics.....	18,813	Jan. 6	54	3
Tode Brothers, New York, N. Y. Mustard.....	19,229	Mar. 24	54	1566
Topping & Fox, New York, N. Y. Packing for machinery.....	20,404	Nov. 24	57	1006
Travers Bros., New York, N. Y. Twines, lines, cords, rope, and thread.....	19,150	Mar. 10	54	1270
Treat, James E., Boston, Mass. Incandescent-lamp shades.....	20,366	Nov. 10	57	699
Tregoning & Son, John S., Llanelly, England. Sheet-iron, tin,terne, and black plates.....	19,845	July 7	56	2
Tregoning & Son, John S., Llanelly, England. Sheet-iron, tin,terne, and black plates.....	19,846	July 7	56	2
Tregoning & Son, John S., Llanelly, England. Sheet-iron, tin,terne, and black plates.....	19,847	July 7	56	2
Tregoning & Son, John S., Llanelly, England. Sheet-iron, tin,terne, and black plates.....	19,848	July 7	56	2
Tregoning & Son, John S., Llanelly, England. Sheet-iron, tin,terne, and black plates.....	19,849	July 7	56	2
Tregoning & Son, John S., Llanelly, England. Sheet-iron, tin,terne, and black plates.....	19,850	July 7	56	2
Trimont Manufacturing Company, Portland, Me., and Boston, Mass. Wrenches.....	19,637	June 2	55	1147
Tucker, James A., Boston, Mass. Men's and boys' coats.....	19,918	July 21	56	266
Tucker, Nathan, Mount Gilead, Ohio. Remedy for hay-fever and catarrhal diseases.....	18,938	Feb. 3	54	511
Ullrich, John H. (See Reid and Ullrich.).....				
Ulman, Boykin & Co., Baltimore, Md. Whisky.....	20,102	Sept. 1	56	1064
Ulman, Boykin & Co., Baltimore, Md. Whisky.....	20,104	Sept. 1	56	1064
Umbstaetter, Herman D., New Haven, Conn. Specific.....	20,360	Nov. 10	57	699
Umbstaetter, Herman D., New Haven, Conn. Wash or lotion.....	20,361	Nov. 10	57	699
Umbstaetter, Herman D., New Haven, Conn. Wash or lotion.....	20,362	Nov. 10	57	699
Underwood & Co., John, New York, N. Y. Type-writer ribbons.....	19,133	Mar. 3	54	1118
Underwood & Co., John, New York, N. Y. Ribbons for type-writers.....	19,134	Mar. 3	54	1118
Union Bag and Paper Company, Chicago, Ill. Paper bags.....	19,192	Mar. 17	54	1422
Union Company, Christiania, and near Skein, Norway. Card-board, paper, and envelopes.....	19,380	Apr. 21	55	292
Union Medicine Company, Augusta, Me. Remedy for diseases of the blood.....	20,485	Dec. 22	57	1600
Union Special Sewing Machine Company, Chicago, Ill. Knit shirts and drawers.....	19,176	Mar. 17	54	1422
Union Special Sewing Machine Company, Chicago, Ill. Sewing-machines and parts thereof.....	20,014	Aug. 11	56	666
Union Special Sewing Machine Company, Chicago, Ill. Sewing-machines and parts thereof.....	20,015	Aug. 11	56	666
Union Special Sewing Machine Company, Chicago, Ill. Sewing-machines and parts thereof.....	20,016	Aug. 11	56	666
United Alkali Company, Limited, Liverpool, England. Caustic soda, chlorates, bleaching-powder, soda ash, soda crystals, and bicarbonates.....	20,027	Aug. 11	56	666

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United States Baking Company, Indianapolis, Ind.; Pittsburg, Pa.; Detroit, Mich.; Cincinnati, Cleveland, Toledo, Columbus, Newark, Zanesville, and Dayton, Ohio; Buffalo, N. Y., and Boston, Mass. Crackers	20,122	Sept. 8	56	1208
United States Iron and Tin Plate Manufacturing Company, McKeesport, Pa. Tin andterne plate	20,495	Dec. 22	57	1600
Vail, Joseph J. & Runyon H., Green Valley, Ill. Washing-machine	20,514	Dec. 29	57	1726
Valle & Co., M., Havana, Cuba. Cigars	19,381	Apr. 21	55	292
Van Buskirk, Roswell, Newark, N. J. Line of proprietary medicines	19,110	Mar. 3	54	1117
Van Houten & Zoon, C. J., Weesp, Holland. Cocoa	18,908	Jan. 27	54	394
Van Schaack & Sons, Peter, Chicago, Ill. Whisky	18,961	Feb. 10	54	666
Vaughan, Parry W., Durham, N. C. Headache and neuralgia cure	20,138	Sept. 15	56	1340
Vega, Matias C., Havana, Cuba. Cigars	20,177	Sept. 29	56	1568
Venino, Albert, Orange, N. J. Coffee extract	19,416	May 5	55	577
Verdier & Schultz, Paris, France. Hosiery	19,946	July 28	56	402
Vernon, Richard R., New York, N. Y. Letter books and indexes	19,136	Mar. 3	54	1118
Vescelius, W. Irving, Albany, N. Y. Ointment	19,978	Aug. 4	56	532
Victor Medical Association, South Bend, Ind. Suppositories for female diseases	19,101	Feb. 24	54	964
Vietor & Achelis, Fredk., New York, N. Y. Hosiery	20,330	Nov. 3	57	551
Vignes & Pepin, New Orleans, La. Whisky	19,935	July 28	56	402
Vignes & Pepin, New Orleans, La. Remedy for diseases of the stomach	20,405	Nov. 24	57	1006
Villamil & Co., J., Havana, Cuba. Cigars	19,266	Mar. 31	54	1718
Viminet, Jules, Brussels, Belgium. Hats and caps	19,084	Feb. 24	54	964
Von Glahn Bros., New York, N. Y. Bitters	20,252	Oct. 20	57	278
Vou Lengerke & Detmold, New York, N. Y. Shell-cartridges	20,368	Nov. 10	57	699
Vosburgh, Henry, Allegan, Mich. Remedy for rheumatism	18,949	Feb. 3	54	511
Vosseler, Adolph C., Brooklyn, N. Y. Headache remedy	19,934	July 28	56	402
W. Gilbertson & Company, Limited, Pontardawe, England. Tin plates or roofing-tin	19,914	July 21	56	266
W. Gilbertson & Company, Limited, Pontardawe, England. Tin plates or roofing-tin	19,915	July 21	56	266
W. Gilbertson & Company, (limited,) Pontardawe, Swansea, county of Glamorgan, England. Tin plates and roofing-tin	20,201	Oct. 6	57	2
W. & H. Foster, Limited, Denbolme Mills, near Bradford, England. Goods of wool, worsted, or hair	19,069	Feb. 24	54	964
W. L. Douglas Shoe Company, Brockton, Mass. Boots and shoes	20,040	Aug. 18	56	808
Walker & Co., James, London, England. Vulcanizable rubber for use in dentistry	19,226	Mar. 24	54	1566
Walker & Sons, Limited, Hiram, Walkerville, Canada. Whisky	19,652	June 2	55	1147
Walker & Sons, Limited, Hiram, Walkerville, Canada. Whisky	19,653	June 2	55	1147
Walter, Lyman P., Louisville, Ky. Anodyne powders	20,047	Aug. 18	56	808
Walters, Edwin, Baltimore, Md. Whisky	19,085	Feb. 24	54	964
Walton, Elisha W., Sacramento, Cal. Ointment	19,325	Apr. 14	55	144
Wanamaker, Firm of John, Philadelphia, Pa. Shirts, collars, and cuffs	19,475	May 12	55	720
Warman & Hazlewood, Limited, Coventry, England. Bicycles, tricycles, and velocipedes	19,953	July 28	56	402
Warner, Samuel G., Memphis, Tenn. Pocket-cases for medicines and surgical instruments	19,590	May 26	55	1003
Warren-Brown Company, Chicago, Ill. Certain named remedies	19,218	Mar. 24	54	1566
Warren-Brown Company, Chicago, Ill. Certain named remedies	19,219	Mar. 24	54	1566
Warren Chemical and Manufacturing Company, New York, N. Y. Asphalt paint	19,912	July 21	56	266
Wasboe, Olaf, New York, N. Y. Cod-liver oil	19,048	Feb. 17	54	832
Water King Soap Company, Kansas City, Kans. Laundry soap	19,144	Mar. 3	54	1118
Waterbury Rubber Company, Jersey City, N. J., and New York, N. Y. Hydraulic hose	19,560	May 19	55	872
Waterbury Watch Company, Waterbury, Conn. Watch-movements	20,367	Nov. 10	57	699
Waukenhose Company, Portland, Me., and Boston, Mass. Hosiery	18,814	Jan. 6	54	3
Wax Starch Company, Keokuk, Iowa. Laundry starch	19,443	May 5	55	578
Way, Samnel A. (See Taylor and Way.)				
Wear & Boogher Dry Goods Company, St. Louis, Mo. Trowsers and overalls	20,369	Nov. 10	57	699
Webb Manufacturing Company, Nashville, Tenn. Washing-blue	18,820	Jan. 6	54	3
Webb Manufacturing Company, Nashville, Tenn. Remedy for diseases of the stomach and children's diseases	18,821	Jan. 6	54	4
Webb, Shakspeare & Williams, Limited, Pontardulais, England. Tin plates	18,975	Feb. 10	54	666
Webb, Shakspeare & Williams, Limited, Pontardulais, England. Tin plates	18,987	Feb. 10	54	667
Webb, Shakspeare & Williams, Limited, Pontardulais, England. Tin plates	18,988	Feb. 10	54	667
Webb, Shakspeare & Williams, Limited, Pontardulais, England. Tin plates	18,989	Feb. 10	54	667
Webb, Shakspeare & Williams, Limited, Pontardulais, England. Tin plates	18,990	Feb. 10	54	667
Webb, Shakspeare & Williams, Limited, Pontardulais, England. Tin plates	18,991	Feb. 10	54	667
Webb, Shakspeare & Williams, Limited, Pontardulais, England. Tin plates	19,193	Mar. 17	54	1422
Weilber & Sons, New York, N. Y. Harmonicas	19,508	May 12	55	720
Weinberg & Mann, Merrick, La. Liniment for sprains, lumbago, lameness, &c	20,198	Oct. 6	57	2
Weis & Co., L., Louisville, Ky. Whiskies in bulk	20,099	Sept. 1	56	1064
Weis & Co., L., Louisville, Ky. Whiskies in bulk	20,100	Sept. 1	56	1064
Welch, Charles B., Burlington, Vt. Medicated cough-drops, lozenges, or confections	19,911	July 21	56	266
Welch Myra E., New York, N. Y. Remedy for diseases of the stomach, bowels, liver, and kidneys	19,294	Apr. 7	55	3
Wenneker-Morris Candy Company, St. Louis, Mo. Caramels	20,496	Dec. 1	57	1136
Wertheimer & Co., New York, N. Y., and Berlin, Germany. Kid gloves	19,708	June 16	55	1404
Westcott Chuck Company, Oneida, N. Y. Chucks	19,326	Apr. 14	55	144
Western Plaster Works, Saginaw and Alabaster, Mich. Calcined plaster	20,280	Oct. 27	57	416
Westervelt, Bertha, Newark, N. J. Hair-curling lotion	19,902	July 21	56	266
Westervelt, Bertha, Newark, N. J. Cosmetic	20,294	Nov. 3	57	550
Whann, William, New Orleans, La. Remedies for gout and rheumatism	19,717	June 16	55	1404
Wheatley Brothers, Chicago, Ill. Salves, pills, and remedies for skin diseases	19,428	May 5	55	578
Wheeler & Company, Limited, Belfast, Ireland. Mineral water	19,765	June 23	55	1534
Wheeler, Paris H., Washington, D. C. Puzzles	19,384	Apr. 21	55	292
Whitaker, William, and R. S. Donisthorpe, London, England. Curative or antiseptic bandages and like appliances	20,410	Nov. 24	57	1006
White, Ahira R., Indianapolis, Ind. Chewing-gum	20,267	Oct. 27	57	416
White Bros. & Co., Boston and Lowell, Mass. Leather	19,327	Apr. 14	55	144
White, Samuel A., Boston, Mass. Leather-dressing	19,628	June 2	55	1147
White, Samuel A., Boston, Mass. Polishing material for boots and shoes	19,639	June 2	55	1147
White, Samuel A., Boston, Mass. Leather-dressing for boots and shoes	19,640	June 2	55	1147
White, William J., Cleveland, Ohio. Chewing-gum	20,517	Dec. 29	57	1726
Whitehill & Cleveland, Newburg, N. Y. Men's and boys' garments	20,078	Aug. 25	56	932
Whitehouse, Daniel, Abercarn, England. Tin-plate in sheets	19,001	Feb. 10	54	667
Whitehouse, Daniel, Abercarn, England. Tin-plate in sheets	19,002	Feb. 10	54	667
Whitehouse, Daniel, Abercarn, England. Tin-plate in sheets	19,003	Feb. 10	54	667
Whiting Paper Company, Holyoke, Mass. Writing-paper	19,681	June 9	55	1280
Whiting Paper Company, Holyoke, Mass. Writing-paper	20,259	Oct. 27	57	416
Whiting Paper Company, Holyoke, Mass. Writing-paper	20,260	Oct. 27	57	416
Whiting Paper Company, Holyoke, Mass. Writing-paper	20,516	Dec. 29	57	1726

Alphabetical list of registrants of trade-marks—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
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Whitman & Son, Stephen F., Philadelphia, Pa. Confectionery.....	20,103	Sept. 1	56	1064
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,778	June 30	55	1656
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,779	June 30	55	1656
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,780	June 30	55	1656
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table-ware.....	19,781	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,782	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,783	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,784	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,785	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,786	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,787	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,788	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,789	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,790	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,791	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,792	June 30	55	1657
Whitney & Co., E. A., Boston, Mass. Gold, silver, and plated table and flat ware.....	19,800	June 30	55	1657
Whittaker & Sons, Francis, St. Louis, Mo., East St. Louis, Ill., and Wichita, Kansas. Bacon.....	18,963	Feb. 10	54	666
Whittaker & Sons, Francis, St. Louis, Mo., East St. Louis, Ill., and Wichita, Kans. Fresh and cured beef, hog and sheep products, including lard.....	19,102	Feb. 24	54	964
Whittemore, Kendall W., Providence, R. I. Plastic material for coating blackboards.....	19,583	May 26	55	1003
Wichita Valley Mill and Elevator Company, Wichita Falls, Tex. Wheat-flour.....	20,439	Dec. 1	57	1136
Wilbert, Frank B. (See Wilbert, Lida and F. B.).....				
Wilbert, Lida and F. B., Chicago, Ill. Toilet preparations, including soap, cream, and powder.....	19,956	Aug. 4	56	532
Wilbur, Lot, Snohomish, Wash. Remedies for diseases of the blood, throat, and lungs.....	19,603	May 26	55	1003
Wilensky, Oscher, New York, N. Y. Clothing for men and boys.....	18,962	Feb. 10	54	666
Wilhelm Company, A., Reading, Pa. Mixed paint.....	18,895	Jan. 20	54	270
Wilke, William, Omaha, Nebr. Mixed tea.....	19,352	Apr. 14	55	145
Williams & Co., Limited, Joshua, Neath, England. Tin andterne plates.....	19,230	Mar. 24	54	1566
Williams & Sons, J. W., Centerville, Iowa. Organs.....	19,604	May 26	55	1003
Williamson, Donw D., New York, N. Y. Compound for bleaching sugar.....	20,281	Oct. 27	57	416
Wilson Grocery Company, Peoria, Ill. Canned fruits and vegetables, catsups, preserves, jellies, and baking-powder.....	19,669	June 9	55	1280
Wilson, Joseph, Chislehurst, England. Embrocation.....	18,904	Jan. 27	54	394
Wilson, William T. (See Morris and Wilson.).....				
Wingren & Co., Estella, Burlington, Kans. Electric insoles.....	19,111	Mar. 3	54	1117
Wirtz, William, Newark, N. J., and New York, N. Y. Mixed ale and stout.....	19,351	Apr. 14	55	145
Wisconsin Milk Condensing Company, Monroe, Mich. Condensed milk.....	20,136	Sept. 15	56	1340
Wm. Bergenthal Company, Milwaukee, Wis. Gin.....	20,167	Sept. 22	56	1452
Wm. Bergenthal Company, Milwaukee, Wis. Rye and bourbon whisky.....	20,168	Sept. 22	56	1452
Wm. Bergenthal Company, Milwaukee, Wis. Bourbon whisky.....	20,169	Sept. 22	56	1452
Wm. Bergenthal Company, Milwaukee, Wis. Bourbon whisky.....	20,170	Sept. 22	56	1452
Woerner Preserving Company, Syracuse, N. Y. Mince-meat.....	18,793	Jan. 6	54	3
Wolf, Harris, Chicago, Ill. Ladies' and gentlemen's furnishings.....	19,153	Mar. 10	54	1270
Wolf & Sons, S., Philadelphia, Pa. Wines and liquors.....	19,645	June 2	55	1147
Wolfe Chemical Company, Toledo, Ohio. Tonic, liniment, cough-syrup, pills, mineral bath, and hair-restorative.....	20,197	Oct. 6	57	2
Wood, Alice L. V., Minneapolis, Minn. Gloves.....	18,846	Jan. 13	54	142
Wood, Robert, Syracuse, N. Y. Automatic sprinklers.....	19,252	Mar. 31	54	1717
Wood & Sons, N. G., Boston, Mass. Gold, silver, and plated spoons.....	20,515	Dec. 29	57	1726
Woodbury, Horace S., Boston, Mass. Wines and alcoholic liquors.....	19,261	Mar. 31	54	1718
Woodbury, Melville, Beverly and Boston, Mass. Boots, shoes, and slippers.....	18,974	Feb. 10	54	666
Woods, Ezariah H. S., Mooredale, Pa. Remedy for hog-cholera.....	20,216	Oct. 13	57	128
Woods, Joseph W., Boston, Mass. Cotton fabrics.....	18,896	Jan. 20	54	270
Woodward, William, Nottingham, England. Remedies for diseases of the stomach and bowels, including teething troubles.....	19,979	Aug. 4	56	532
Woodyear, William E., Baltimore, Md. Wheat-flour.....	19,393	Apr. 21	55	292
Woolner, Adolph, Jr., New Haven, Conn. Compressed yeast.....	19,332	Apr. 14	55	144
Woolson Spice Company, Toledo, Ohio. Mocha, Java, and Rio coffee.....	19,177	Mar. 17	54	1422
Worcester Corset Company, Worcester, Mass. Corsets.....	19,707	June 16	55	1404
Wright & Co., J. Wash., Kahoka, Mo. Laundry starch.....	20,139	Sept. 15	56	1340
Wright & Ditson, Boston, Mass. Tennis-rackets.....	19,186	Mar. 17	54	1422
Wright, Henry R., Albany, N. Y. Pop-corn.....	20,003	Aug. 11	56	666
Wright Medicine Company, Charles, Detroit, Mich. Headache remedy.....	19,340	Apr. 14	55	144
Wright, Solomon, New York, N. Y. Knit underwear.....	19,494	May 12	55	720
Wunderle, Philip, Philadelphia, Pa. Confectionery.....	19,135	Mar. 3	54	1118
Wunsch, Eugene, Cincinnati, Ohio. Embrocation for rheumatism, neuralgia, and similar ailments.....	19,199	Mar. 17	54	1422
Wyckoff, Seamans & Benedict, New York, N. Y. Writing and type-writer paper.....	18,814	Jan. 13	54	142
Wyckoff, Seamans & Benedict, New York, N. Y. Writing and type-writer paper.....	18,845	Jan. 13	54	142
Wyckoff, Seamans & Benedict, New York, N. Y. Ribbons and carbon and linen papers for type-writers.....	19,462	May 12	55	719
Yankee Baking Powder Company, Chicago, Ill. Baking-powder.....	19,685	June 9	55	1280
Ybaseta, José, Havana, Cuba. Cigars.....	19,287	Apr. 7	55	3
Ybaseta, José, Havana, Cuba. Cigars.....	19,288	Apr. 7	55	3
Ybaseta, José, Havana, Cuba. Cigars.....	19,289	Apr. 7	55	3
Yeatts & Troth, Philadelphia, Pa. Men's outfittings.....	18,950	Feb. 3	54	511
Young, George, Utica, N. Y. Crackers and biscuit.....	19,050	Feb. 17	54	822
Younger, Lawson C., Richmond, Va. Cider.....	20,467	Dec. 15	57	1432
Yunds, Kne & Kennedy, Amsterdam, N. Y. Fancy knit underwear.....	19,328	Apr. 14	55	144
Zatarain, Emile A., New Orleans, La. Chinese tea.....	19,913	July 21	56	266
Zethraeus, Frederick J. G., Paris, Tex. Remedy for skin diseases.....	19,531	May 19	55	871



ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Name, residence, and title.	No.	Date.	Official Gazette.	
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American Herbal Medicine Company, New York, N. Y. "Golden Seal Compound." (For medicine).	6,410	Jan. 13	54	142
American Herbal Medicine Company, New York, N. Y. "Quick Relief." (For medicine).	6,411	Jan. 13	54	142
Arnicarboline Co., Milwaukee, Wis. "Medicated and free from all Impurities, for Shaving and Shampooing, Fragrant and Refreshing." (For soap).	6,452	Feb. 17	54	822
Arnicarboline Co., Milwaukee, Wis. "Medicated Fragrant and Refreshing." (For soap).	6,453	Feb. 17	54	822
Barker, Moore & Mein Medicine Company, Philadelphia, Pa. "Barker's Improved Chemical & Vegetable Horse, Cattle, & Poultry Powder"	6,429	Feb. 3	54	511
Bartholomay Brewery Company, Rochester, N. Y. "The Bartholomay Bavarian." (For lager-beer).	6,406	Jan. 6	54	4
Bartholomay Brewery Company, Rochester, N. Y. "The Bartholomay Bohemian." (For lager-beer).	6,407	Jan. 6	54	4
Bartholomay Brewery Company, Rochester, N. Y. "The Bartholomay Standard." (For lager-beer).	6,408	Jan. 6	54	4
Bell Medicine Co., St. Louis, Mo. "Nervine"	6,448	Feb. 17	54	822
Bergman, Charlotte, Brooklyn, N. Y. "Mrs. Charlotte Bergman's Sore-Salve"	6,419	Jan. 20	54	270
Bergman, Charlotte, Brooklyn, N. Y. "Mrs. Charlotte Bergman's Balsam"	6,420	Jan. 20	54	270
Bergman, Charlotte, Brooklyn, N. Y. "Mrs. Charlotte Bergman's Family Medicine"	6,421	Jan. 20	54	270
Bergman, Charlotte, Brooklyn, N. Y. "Mrs. Charlotte Bergman's Bacillus Destroyer and Lung Restorer"	6,456	Feb. 17	54	822
Bindley & Co., E. H., Terre Haute, Ind. "Syrup of Prunes." (For a medicine)	6,473	Mar. 10	54	1270
Bligh, James D., Monroe, La. "Bligh's Chill Mixture"	6,508	Apr. 28	55	436
Brooklyn Railway Supply Company, New York, N. Y. "The Brooklyn Sweeper"	6,490	Apr. 7	55	4
Brown, Wesley, Ashtabula, Ohio. "Cherokee Blood and Liver Renovator"	6,538	May 26	55	1003
Burwell & Lacey, Boston, Mass. "Marienbad Obesity Pills"	6,479	Mar. 24	54	1566
Ceylon Planters Tea Company, New York, N. Y. "The Ceylon Planters' Tea Company"	6,527	May 12	55	720
Chase, Charles W. (See Hazen and Chase.)				
Chicago Family Medicine Co., Chicago, Ill. "The Chicago Family Medicine Co."	6,504	Apr. 14	55	145
Chicago Wood Finishing Company, Chicago, Ill. "Japanese Surfacing Lacquer"	6,422	Jan. 20	54	270
Cleveland Rubber Company, Cleveland, Ohio. "Seamless Tube Rubber Hose"	6,480	Mar. 24	54	1566
Clevenger Hair Balsam Co., Minneapolis, Minn. "Directions for using Clevenger's Hair Balsam"	6,472	Mar. 10	54	1270
Conday, Paul, Pittsburg, Pa. "Conday's Export Extract of Wild Cherry"	6,458	Feb. 17	54	892
Consolidated Coffee Company, Omaha, Nebr. "German Baking Powder"	6,507	Apr. 21	55	292
Crocker, John D., Norwich, Conn. "Crocker's Magical Stomach Powders"	6,521	May 12	55	720
Culbert & Taylor, New York, N. Y. "Culbert & Taylor Agents for Martini & Rossi." (For vermouth).	6,430	Feb. 3	54	511
Dahl, Harold A. C., Brooklyn, N. Y. "Dahl's Knäckebröd"	6,525	May 12	55	720
Daniel, John B., Atlanta, Ga. "Winter's Life Elixir Tonic and Antiperiodic"	6,426	Feb. 3	54	511
Dannenberg, Isaac, Baltimore, Md. "Golden Colored Pure Rye Whisky"	6,461	Feb. 24	54	964
Davis Manufacturing Company, Columbus, Ohio. "Dr. A. S. Davis' Balm"	6,488	Mar. 31	54	1718
Davis Manufacturing Company, Columbus, Ohio. "Dr. A. S. Davis' Liniment for Horses"	6,489	Mar. 31	54	1718
De Witt, Elden C., Chicago, Ill. "De Witt's Sarsaparilla"	6,514	Apr. 23	55	436
De Witt, Elden C., Chicago, Ill. "De Witt's Stomach Bitters"	6,515	Apr. 28	55	436
De Witt, Elden C., Chicago, Ill. "De Witt's Cough and Consumption Cure"	6,516	Apr. 28	55	436
De Witt, Elden C., Chicago, Ill. "De Witt's Carbolyzed Witch Hazel Salve"	6,518	May 5	55	578
Denike, Mary W., New York, N. Y. "Jelly Soap for Shampooing"	6,497	Apr. 14	55	145
Detchen, Irvin A., Crawfordsville, Ind. "Detchen's Compound Extract of Gravel Plant"	6,418	Jan. 13	54	142
Determann, E. W., Vincennes, Ind. "Colain." (For medicine)	6,531	May 19	55	872
Diamond White Grape Company, Rochester and Brighton, N. Y. "Diamond White Grapes"	6,468	Mar. 3	54	1118
Diffusible Tonic Company, Sturgis, Mich. "Diffusible Tonic"	6,434	Feb. 3	54	511
Dumestre & Heintz, New Orleans, La. "Dumestre & Heintz's Southern Ginger Tonic"	6,528	May 12	55	720
Eldredge & Co., J. B., Bridgeport, Conn. "Eldredge's Cough Remedy"	6,466	Mar. 3	54	1118
Eves, Robert L., Nashville, Tenn. "White Pine and Mullein Cough Remedy"	6,412	Jan. 13	54	142
Fahrney, Peter, Chicago, Ill. "Forn's Alpen Kräuter." (For medicine)	6,492	Apr. 14	55	145
Fahrney, Peter, Chicago, Ill. "Dr. Peter's Kuriko." (For medicine)	6,493	Apr. 14	55	145
Faulkner, Eldridge R., Baltimore, Md. "The Perfect Fire Kindler"	6,462	Feb. 24	54	964
Fleming, George S., Pittsburg, Pa. "Fleming's Pure Rye." (For spirituous liquors)	6,436	Feb. 10	54	668
Fleming, George S., Pittsburg, Pa. "Jos. Fleming & Son." (For spirituous liquors)	6,415	Feb. 10	54	668
Florence Tobacco Manufacturing and Warehouse Company, Florence, S. C. "South Carolina Choice." (For plug-tobacco)	6,413	Jan. 13	54	142
Florence Tobacco Manufacturing and Warehouse Company, Florence, S. C. "Florence County." (For plug-tobacco)	6,414	Jan. 13	54	142
Frame, Charles N., Reading, Pa. "Dry Plug Pure Tobacco." (For chewing and smoking)	6,446	Feb. 10	54	668
Galer, Alfred J., Brooklyn, N. Y. "Galer's Popular Magnesia Compound"	6,517	Apr. 28	55	436
Gedney Pickle Company, Omaha, Nebr. "Mixed Pickles"	6,460	Feb. 17	54	822
Gilbert, John T., Chicago, Ill. "The Old Essence Man's Extract of Lemon"	6,477	Mar. 24	54	1566
Goldsborough, Charles, Baltimore, Md. "Highspire." (For whisky)	6,416	Jan. 13	54	142
Groves, John D., Philadelphia, Pa. "Dr. Groves Anodyne for Infants"	6,474	Mar. 10	54	1270
Harnist, William D., Edwardsville, Ill. "Fruit Julep." (For medicine)	6,409	Jan. 6	54	4
Hazen, Emerson, and C. W. Chase, Chardon, Ohio. "Dr. Hazen's Diphtheria Remedy"	6,539	May 26	55	1003
Higgins, Charles M., Brooklyn, N. Y. "Drawing Board Mucilage"	6,437	Feb. 10	54	668
Hoenny, A. J., St. Louis, Mo. "Jelly of Roses." (For a toilet preparation)	6,441	Feb. 10	54	668
Horsman, Edward L., New York, N. Y. "Magnetic Jack Straws"	6,526	May 12	55	720
Howell, Alexander C., Hackettstown, N. J. "Non-Alcoholic Extract of Vauilla"	6,467	Mar. 3	54	1118
Hubbell, William W., Appomattox, Va. "Crystalline Spring Water"	6,498	Apr. 14	55	145
Hnestis, Harvey, Providence, R. I. "Interchangeable Birthday Ring"	6,510	Apr. 28	55	436
Iron Tonic Capsule Company, Syracuse, N. Y. "Fredrick's Iron Tonic Capsules"	6,529	May 19	55	872
Jewett, Henry M., Belfast, Me. "Compound Rheumatic Oil"	6,435	Feb. 3	54	511
Joslyn & Co., F. C., Syracuse, N. Y. "Edwards' Cherry and Tolu Compound"	6,427	Feb. 3	54	511
Kemlo, Jennie M., Brooklyn, N. Y. "Cresylic Vapor." (For medicine)	6,499	Apr. 14	55	145
Kemlo, Jennie M., Brooklyn, N. Y. "Cresol Catarrh Cure"	6,500	Apr. 14	55	145
Kimmel, William, Cleveland, Ohio. "Kimmel's Combination Copying Book"	6,443	Feb. 10	54	668
Litzenberg, William, Chillicothe, Mo. "Litzenbergs Horse Liniment"	6,459	Feb. 17	54	822
Long, Charles T., Lebanon, Ohio. "Long's Breakfast Flour"	6,438	Feb. 10	54	668
Maguire, Michael T., Philadelphia, Pa. "A Superior Dressing." (For leather)	6,509	Apr. 28	55	436
Marey & Liger-Belair, C., Nuits, France. "Clos de Vougeot." (For wine)	6,536	May 26	55	1003

Alphabetical list of registrants of labels—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
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Marshall, H. P., Mohawk, Tenn. "White Pine Pectoral".....	6,428	Feb. 3	54	511
Marshall, Winfield S., Centralia, Ill. "Marshall's Convertible Buggy-Case Saddle-Bags".....	6,491	Apr. 7	55	4
Mayer & Ruchlmann, Philadelphia, Pa. "Self Opener." (For satchels).....	6,451	Feb. 17	54	822
McGreevy, George L., Baltimore, Md. "G. L. McGreevy's Compound Tonic".....	6,475	Mar. 17	54	1422
Monroe, Edwin N., Unionville, Mo. "Sngar-Corn Whiskey".....	6,511	Apr. 28	55	436
Monroe, Edwin N., Unionville, Mo. "Sweet-Corn Whiskey".....	6,512	Apr. 28	55	436
Morris, William R., Philadelphia, Pa. "Excellent Water-Proof Harness Composition".....	6,530	May 19	55	872
Murdoch, J. N., Parkersburg, W. Va. "Dr. Warren's Insomnia Cure".....	6,425	Jan. 27	54	394
National Pure Food Company, Portland, Me., and Boston, Mass. "National Pure Food Company".....	6,501	Apr. 14	55	145
Ost, Henry, Newark, N. J. "Henry Ost's Prepared Castor Oil".....	6,465	Mar. 3	54	1118
Osterholm & Co., A., New York, N. Y. "Sundhets-Salt." (For medical purposes).....	6,457	Feb. 17	54	822
Paul, John C., Chicago, Ill. "Metal Polish".....	6,423	Jan. 20	54	270
Peloubet, Alexander H., and J. L. Tobin, New York, N. Y. "Buttered Baking Powder".....	6,450	Feb. 17	54	822
Peters, Julius, Jersey City, N. J. "Dr. Julius Peters' Hygienic Tooth Powder, Jersey City".....	6,520	May 5	55	578
Price Flavoring Extract Company, Chicago, Ill. "Dr. Price's Delicious Flavoring Extracts, Natural Fruit Flavors".....	6,537	May 26	55	1003
Price, Walter, Westerly, R. I. "Compound Toin and Lungwort Cough Syrup".....	6,449	Feb. 17	54	822
Quinine Tonic Co., Louisville, Ky. "Quinine Tonic".....	6,522	May 12	55	720
Quinine Whisky Co., Louisville, Ky. "Quinine Whisky".....	6,523	May 12	55	720
Redlich, Estelle, New York, N. Y. "Pocket Make Up Box." (For the toilet).....	6,494	Apr. 14	55	145
Retsof Mining Company, York and New York, N. Y. "Retsof Lump Salt".....	6,482	Mar. 31	54	1718
Retsof Mining Company, York and New York, N. Y. "Retsof Lump Rock Salt".....	6,483	Mar. 31	54	1718
Retsof Mining Company, York and New York, N. Y. "Retsof Pure Rock Salt".....	6,484	Mar. 31	54	1718
Retsof Mining Company, York and New York, N. Y. "Retsof Pure Salt".....	6,485	Mar. 31	54	1718
Retsof Mining Company, York and New York, N. Y. "Retsof Salt".....	6,486	Mar. 31	51	1718
Rickerby, Alfred M., Brooklyn, N. Y. "Mixed Ale".....	6,403	Jan. 6	54	4
Rickerby, Alfred M., Brooklyn, N. Y. "Half and Half." (For alcoholic beverages).....	6,404	Jan. 6	54	4
Rickerby, Alfred M., Brooklyn, N. Y. "Blended Lager Beer".....	6,439	Feb. 10	54	668
Rickerby, Alfred M., Brooklyn, N. Y. "Mixed Beer".....	6,440	Feb. 10	54	668
Rinn, Joseph F., Chicago, Ill. "Rinn's Cleansing Compound".....	6,478	Mar. 24	54	1566
Ripley Natural Gas and Oil Company, Ripley, Ohio. "The Ripley Bromo Lithia Natural Spring Water".....	6,532	May 19	55	872
Roelofs & Co., Henry H., Philadelphia, Pa. "Improved Pressed, Finished and Curled Hat".....	6,533	May 26	55	1003
Roelofs & Co., Henry H., Philadelphia, Pa. "Improved Press Finished Hat".....	6,534	May 26	55	1003
Roelofs & Co., Henry H., Philadelphia, Pa. "Improved Pressed Hat".....	6,535	May 26	55	1003
Rooksby, Charles W., Philadelphia, Pa. "Mineral and Vegetable Combination." (For burning purposes).....	6,454	Feb. 17	54	822
Russ, Eveleth & Ingalls, Boston, Mass., and New York, N. Y. "Home Made." (For muslin underwear).....	6,521	May 5	55	578
Schloss Bros. & Co., Baltimore, Md. "Wholesale Drapers".....	6,519	May 5	55	578
Seaman, John F., New York, N. Y. "Botanic Kidney Cure".....	6,481	Mar. 31	54	1718
Seay, Fannie W., Ironaton, Ala. "Madame Seay's System of Cutting".....	6,496	Apr. 14	55	145
Severin, N., Brooklyn, N. Y. "Severin's Liquid Drawing Ink Eraser".....	6,502	Apr. 14	55	145
Severin, N., Brooklyn, N. Y. "Severin's Liquid Pencil Eraser".....	6,503	Apr. 14	55	145
Smith, Kline & French Company, Philadelphia, Pa. "Eskay's Scottish Queen Perfume".....	6,506	Apr. 21	55	292
Soden Mineral Springs Company, Limited, New York, N. Y. "The Soden Mineral Pastilles".....	6,405	Jan. 6	54	4
Solliday, Edward R., Lambertville, N. J. "Improved Chadwick Copying Book Pad".....	6,513	Apr. 28	55	436
Spannhake, August, St. Louis, Mo. "Ointment".....	6,444	Feb. 10	54	668
Stearns, Frank H., Felchville, Vt. "Stearns' Ammoniated Food for House Plants".....	6,424	Jan. 27	54	394
Stern, Morris H., Milwaukee, Wis. "Stern's Oil." (For neuralgia and rheumatism).....	6,431	Feb. 3	54	511
Stern, Morris H., Milwaukee, Wis. "Stern's Cream." (For throat and lung diseases).....	6,432	Feb. 3	54	511
Stern, Morris H., Milwaukee, Wis. "Stern's Tonic".....	6,433	Feb. 3	54	511
Stretch, David E., Trenton, N. J. "Stretch's Penetrating Liniment".....	6,487	Mar. 31	54	1718
Thorns Medicine Co., Brattleborough, Vt. "Thorn's Vegetable Cough Cure".....	6,447	Feb. 10	54	668
Tobin, James L. (See Peloubet and Tobin.)				
Tudor, Robert L., Maysville, Ky. "R. L. Tudor's Patent Leather and Enameled Leather Softener".....	6,476	Mar. 17	54	1422
Vacuum Oil Company, Rochester, N. Y. "The Oil that Lubricates Best".....	6,464	Feb. 24	54	964
Vacuum Oil Company, Rochester, N. Y. "The Oil that Lubricates Most".....	6,463	Feb. 24	54	964
Vacuum Oil Company, Rochester, N. Y. "The Oils that Lubricate Most".....	6,469	Mar. 3	54	1118
Vacuum Oil Company, Rochester, N. Y. "The Oil which Lubricates Best".....	6,470	Mar. 3	54	1118
Vacuum Oil Company, Rochester, N. Y. "The Oil which Lubricates Most".....	6,471	Mar. 3	54	1118
Wadleigh, F. R., Alton, N. H. "Wadleigh's Kidney Remedy".....	6,455	Feb. 17	54	822
Warner, William R., Philadelphia, Pa. "Granular Effervescent Bromo Lithia".....	6,417	Jan. 13	54	142
Welch, Myra E., New York, N. Y. "Mrs. Webb's Magic Tea." (For a medicine).....	6,495	Apr. 14	55	145
Westinghouse Electric and Manufacturing Company, Pittsburg, Pa. "The Ironclad Gearless Motor".....	6,505	Apr. 21	55	292
Wilbert, L., Chicago, Ill. "Buttermilk Toilet Soap".....	6,415	Jan. 13	54	142
Young, John A., Greensborough, N. C. "Greensboro Nurseries".....	6,442	Feb. 10	54	668

DISCLAIMERS

Name, residence, and invention.	No.	Filed.	Official Gazette.	
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Blessing, James H., Albany, N. Y.; disclaimer filed by assignee. Pump regulating valves	207,485	Apr. 22, 1891	55	436
Boynton, Edward S., New York, N. Y.; disclaimer filed by assignee. Valve for pneumatic pipes or tubes	401,620	Jan. 21, 1891	54	511
Brush, Charles J., Cleveland, Ohio; disclaimer filed by assignee. Secondary batteries	337,299	Oct. 12, 1891	57	278
Entz, Justus B., New York, and William A. Phillips, Schenectady, N. Y.; disclaimer filed by assignee. Electrode for secondary batteries	440,023	July 16, 1891	56	402
Koehlin, Horace, Lowach, Baden, Germany; disclaimer filed by assignees. Manufacture of colors or dye-stuffs	253,791	Nov. 11, 1891	57	850
Loomis, Moses De Witt, Detroit, Mich.; disclaimer filed by patentee. Converting helical springs to straight bars	437,703	Apr. 20, 1891	55	436
Mink, Fritz, Philadelphia, Pa.; disclaimer filed by assignee. Watch-cases	415,678	Aug. 13, 1891	56	808
Page, Marvin J., Buffalo, N. Y.; disclaimer filed by patentee. Slicers	441,440	Mar. 30, 1891	55	4
Smead, Isaac D., Toledo, Ohio; disclaimers filed by patentee and assignees. Dry closets, &c.	314,884	Apr. 9, 1891	55	292
Smead, Isaac D., Toledo, Ohio; disclaimers filed by patentee and assignees. Dry closets, &c.	314,884	Apr. 11, 1891	55	292
Smead, Isaac D., Toledo, Ohio; disclaimers filed by patentee and assignees. Dry closets, &c.	314,884	Apr. 13, 1891	55	292
Smead, Isaac D., Toledo, Ohio; disclaimer filed by assignee. Dry closets, &c.	314,884	Apr. 20, 1891	55	436
Smead, Isaac D., Toledo, Ohio; disclaimer filed by assignee. Dry closets, &c.	314,884	May 21, 1891	55	1148
Smead, Isaac D., Toledo, Ohio; disclaimers filed by patentee and assignees. Dry closets.	363,971	Apr. 9, 1891	55	292
Smead, Isaac D., Toledo, Ohio; disclaimers filed by patentee and assignees. Dry closets.	363,971	Apr. 11, 1891	55	292
Smead, Isaac D., Toledo, Ohio; disclaimers filed by patentee and assignees. Dry closets.	363,971	Apr. 13, 1891	55	292
Smead, Isaac D., Toledo, Ohio; disclaimer filed by assignee. Dry closets.	363,971	Apr. 20, 1891	55	436
Smead, Isaac D., Toledo, Ohio; disclaimer filed by assignee. Dry closets.	363,971	May 21, 1891	55	1148
Smead, Isaac D., Toledo, Ohio; disclaimer filed by assignee. Dry closets, &c.	314,884	Mar. 3, 1891	54	1270
Smead, Isaac D., Toledo, Ohio; disclaimer filed by assignee. Dry closets, &c.	314,884	Mar. 24, 1891	54	1718
Smead, Isaac D., Toledo, Ohio; disclaimer filed by assignee. Dry closets, &c.	363,971	Mar. 3, 1891	54	1270
Smead, Isaac D., Toledo, Ohio; disclaimer filed by assignee. Dry closets, &c.	363,971	Mar. 24, 1891	54	1718
Woffenden, George, Newtown, Conn.; disclaimer filed by assignee. (Design.) Rubber slat	11,208	Feb. 6, 1891	54	822



ALPHABETICAL LIST OF INVENTIONS.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Specification.	Drawing.	Volume.	Page.
Abattoir	J. W. Moyer	447,840	Mar. 10	934	234	54	1302
Abdominal supporter	F. Steinmetz	464,738	Dec. 8	1137	282	57	1360
Abbrading-machine	A. W. Street	455,131	June 30	3079	784	55	1763
Accouchement apparatns for instruction	M. Klantsch	451,675	May 5	355	87	55	646
Accumulator	C. C. Worthington	445,917	Feb. 3	654	160	54	640
Acid. Amido-naphthol-monosulphonic	L. Gans	454,645	June 23	2234	.....	55	1594
Acid. Amido-naphthol monosulphonic	H. Kužel	458,285	Aug. 25	2227	.....	56	976
Acid. Amido-oxynaphthaline disulphonic	H. Kužel	458,286	Aug. 25	2228	.....	56	976
Acid. Apparatus for making sulphuric	E. and J. Delplace	446,060	Feb. 10	901	219	54	695
Acid concentrator. Sulphuric	J. B. Ackerson	453,801	June 9	981	255	55	1342
Acid. Dioxynaphthaline-mono-sulphonic	M. Ulrich	444,679	Jan. 13	1093	.....	54	224
Acid. Making phosphoric	C. Glaser	459,575	Sept. 15	1631	.....	56	1397
Acid. Manufacture of hydrofluosilicic	M. W. Beylikgy	465,607	Dec. 22	2571	.....	57	1652
Acid. Manufacture of tartaric	R. W. Schedler	455,768	July 14	766	.....	56	156
Acid. Manufacturing lactic	C. N. Waite	455,078	June 30	2998	.....	55	1748
Acid phosphate. Making	A. Memminger	445,567	Feb. 3	72	.....	54	526
Acid. Producing hydrofluosilicic	T. W. Cappon	461,665	Oct. 20	1828	.....	57	364
Actinometer	E. G. Ballard	445,743	Feb. 3	374	96	54	587
Adding and recording machine	J. Mathison	450,814	Apr. 21	1817	{ 440 441	{ 55	369
Adding and writing machine	A. C. Ludlum. (Reissne)	11,147	Mar. 3	762	190	54	1263
Adding-machine	O. W. Anderson	465,811	Dec. 22	2869	734	57	1712
Adding-machine	G. F. Atwood	452,446	May 19	1628	{ 405 406	{ 55	899
Adding-machine	W. H. Beardsley and L. M. Hosea	447,457	Mar. 3	307	77	54	1175
Adding-machine	J. E. Blackshaw and G. H. Rogers	454,888	June 30	2538	653	55	1659
Adding-machine	J. E. Blackshaw and G. H. Rogers	463,027	Nov. 10	1276	331	57	808
Adding-machine	R. Corbin	445,240	Jan. 27	2026	522	54	420
Adding-machine	D. I. Craig	454,715	June 23	2336	600	55	1616
Adding-machine	G. B. Gates	448,221	Mar. 17	1551	396	54	1431
Adding-machine	E. F. Jewett	446,753	Feb. 17	2025	505	54	925
Adding-machine	W. F. Lawrenz	456,419	July 21	1777	{ 470 471	{ 56	355
Adding-machine	J. Richardson and F. E. Heath	453,507	June 2	519	{ 133 134	{ 55	1246
Adding-machine	D. J. Rowland	447,363	Mar. 3	141	39	54	1144
Adding-machine	H. H. Rumble	462,384	Nov. 3	268	65, 66	57	602
Adding-machine	A. E. Shattuck	453,778	June 9	948	246	55	1335
Adding-machine	A. Slavin	462,334	Nov. 3	180	46	57	585
Adding-machine	C. H. Webb	465,120	Dec. 15	1775	{ 448 449	{ 57	1491
Adding-machine	J. W. Wright	451,967	May 12	808	{ 205 206	{ 55	739
Addressing-machine	W. P. Bonsall	449,032	Mar. 24	2850	725	54	1687
Addressing-machine	G. Brown	463,117	Nov. 10	1430	370	57	838
Addressing-machine	G. S. Conch	455,814	July 14	854	224	56	172
Addressing-machine	E. W. Fish	451,606	May 5	242	58	55	625
Addressing-machine	C. E. Hadley	449,320	Mar. 31	3327	839	54	1783
Addressing-machine	G. C. Sherman	447,980	Mar. 10	1171	297	54	1346
Adhesive compound	C. M. Higgins	466,239	Dec. 29	3575	.....	57	1857
Adjustable bracket	G. H. Christensen	456,614	July 28	2104	556	56	426
Adjustable bracket	A. Nacke and A. Brinkmann	450,250	Apr. 14	914	226	55	182
Adjustable chair	C. H. Knight	445,183	Jan. 27	1944	502	54	404
Adjustable chair	O. C. White	461,928	Oct. 27	2264	560	57	457
Adjustable frame and sheath	R. Marsh	452,807	May 26	2290	575	55	1034
Adjustable pattern for drafting garments	S. Bisceglia	447,932	Mar. 10	1087	273	54	1331
Adjustable pattern for drafting trousers	A. McDowell	459,856	Sept. 22	2079	52	56	1490
Adjustable table	W. Hettterschied	466,303	Dec. 29	3684	941	57	1876
Adjustable wrench	J. Müller	451,833	May 5	589	145	55	692
Advertising apparatus	H. Lioret	446,457	Feb. 17	1579	388	54	899
Advertising apparatus. Street	G. W. MacKenzie	458,474	Aug. 25	2530	616	56	1033
Advertising-hulletin and train-annunciator	S. H. St. John and F. A. Jennings	451,282	Apr. 28	2567	633	55	522
Advertising device	C. Cleveland	452,663	May 19	1969	494	55	962
Advertising device	S. D. L. Jackson	453,190	June 2	19	6	55	1152
Advertising device	H. G. Rich	454,292	June 16	1662	436	55	1482
Advertising device	W. E. Roberts	454,769	June 23	2413	620	55	1631
Advertising or other article	R. H. Welch	459,150	Sept. 8	953	230	56	1258
Advertising purposes. Apparatus for	J. Orme	452,430	May 19	1601	398	55	894
Advertising purposes at night. Illuminating-balloon for	A. Gross	460,674	Oct. 6	223	57	57	46
Advertising-vehicle	T. Gill	448,425	Mar. 17	1900	477	54	1499
Advertising-vehicle	O. J. Ratliff	453,209	June 2	41	{ 12, 13 103	{ 55	1157
Advertising-wagon	G. E. Rowe	444,236	Jan. 6	415	{ 104 104	{ 54	82
Aerator	L. J. Macy	447,573	Mar. 3	498	122	54	1210
Aerator for milk or other liquids	L. F. Wood	448,568	Mar. 17	2112	529	54	1539
Aerial machine	S. Cairncross	464,851	Dec. 8	1298	325	57	1392
Aerial ventilator	R. C. Davis and R. R. Brown	446,813	Feb. 17	2117	526	54	946

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Agitator	F. F. Wood	459,668	Sept. 15	1789	450	56	1427
Agitator for kettles or tanks	J. Hobbs	447,566	Mar. 3	484	119	54	1208
Agricultural fork	F. S. Kretsinger	445,621	Feb. 3	162	43	54	543
Agricultural implement	A. Caldwell	457,769	Aug. 18	1377	356	56	809
Agricultural implement	J. W. Hammett	460,012	Sept. 22	2312	580	56	1534
Agricultural machine	J. E. Reed	463,966	Nov. 24	2780	721	57	1112
Agricultural machine	C. D. White	455,676	July 7	606	159	56	118
Agricultural system. Electric	E. M. Bentley	444,265	Jan. 6	451	{ 114 115 }	54	89
Air and gases. Compressor for	T. C. Craven	451,460	May 5	21	6	55	583
Air and water. Device for tempering	W. H. Murray	450,945	Apr. 21	2002	{ 493 494 }	55	405
Air. Apparatus for forcing	H. S. Robinson	455,359	July 7	92	27	56	22
Air. Apparatus for humidifying	W. Tattersall	445,094	Jan. 20	1788	460	54	365
Air-brake	D. L. Barnes and W. H. Marshall ..	462,193	Oct. 27	2664	667	57	532
Air-brake	R. W. Bayley. (Reissue)	11,145	Feb. 17	2166	539	54	955
Air-brake	W. T. Bothwell	456,247	July 21	1497	397	56	303
Air-brake	T. J. Hogan	447,731	Mar. 3	725	182	54	1255
Air-brake	C. R. James	447,236	Feb. 24	2866	{ 711 712 }	54	1094
Air-brake	C. R. James	461,243	Oct. 13	1088	276	57	217
Air-brake	F. Lansberg	445,999	Feb. 3	629	155	54	635
Air-brake	R. E. Marshall	456,199	July 21	1415	376	56	288
Air-brake	A. P. Massey	451,409	Apr. 28	2748	680	55	556
Air-brake	G. Westinghouse, Jr.	448,827	Mar. 24	2539	637	54	1627
Air-brake	A. J. Wisner	446,908	Feb. 24	2301	572	54	988
Air-brake. Automatic	A. P. Massey	447,783	Mar. 10	828	206	54	1281
Air-brake for cars	H. H. Westinghouse and R. W. Bayley.	461,779	Oct. 20	2014	{ 496 497 }	57	399
Air-brake-hose holder	S. M. Beery	452,334	May 12	1444	357	55	854
Air-brake mechanism	H. S. Hopper	458,626	Sept. 1	121	27	56	1089
Air-brake system	W. W. Slater	452,942	May 26	2427	613	55	1080
Air-brake systems. Attachment for	A. L. Waite	463,085	Nov. 10	1367	354	57	925
Air-brakes. Automatic governor for	M. M. Dodd	462,966	Nov. 10	1191	309	57	790
Air-brakes. Slack take-up for	A. P. Riggs	457,215	Aug. 4	445	117	56	616
Air-bulb. Valved rubber	W. F. Ware	451,179	Apr. 28	2375	591	55	487
Air-compressor	O. A. Clark	453,374	June 2	300	78, 79	55	1203
Air-compressor	E. Hill	448,859	Mar. 24	2602	{ 653 654 }	54	1639
Air-compressor	E. Hill	452,132	May 12	1112	283	55	791
Air-compressor	E. Hill	454,590	June 23	2132	550	55	1577
Air-compressor	E. Hill	463,386	Nov. 17	1862	486	57	928
Air-compressor	F. H. Richards	462,776	Nov. 10	879	230	57	729
Air compressor and pump. Rotary	H. Richmann	459,527	Sept. 15	1554	387	56	1382
Air compressor and pump. Rotary	H. Richmann	462,453	Nov. 3	370	92	57	621
Air-compressor. Hydraulic	W. R. Phillips	452,283	May 12	1348	336	55	837
Air-compressor regulator	B. V. Nordberg	458,975	Sept. 1	664	{ 162 163 }	56	1195
Air-cooling apparatus	G. W. Smith	456,444	July 21	1821	482	56	363
Air-cylinder lubricator. Compressed	H. C. Sergeant	447,910	Mar. 10	1052	263	54	1324
Air for producing motive energy. Utilizing compressed	V. Popp	456,595	July 28	2061	545	56	418
Air for the production of mechanical power. Means for utilizing compressed	V. Popp	456,594	July 28	2059	545	56	418
Air-forcing device	G. W. Lord	465,326	Dec. 15	2100	536	57	1553
Air-heating furnace	J. Young	445,130	Jan. 20	1846	478	54	376
Air-hoist	C. Weatherston	465,008	Dec. 15	1575	401	57	1456
Air in rooms, &c. Machine for agitating and circulating	H. Cooper	455,660	July 7	586	{ 152 153 154 }	56	114
Air injector and exhauster. Combined	S. R. Earle	453,831	June 9	1015	{ 264 265 }	55	1349
Air into the lungs. Instrument for forcing	F. P. Wilcox	459,898	Sept. 22	2152	541	56	1504
Air-moistening apparatus	A. Schmid	462,102	Oct. 27	2519	625	57	505
Air-moistening machine	E. H. C. Oehlmann	444,940	Jan. 20	1561	{ 400 401 }	54	320
Air or other gaseous bodies. Compound compressor for	H. C. Sergeant	456,165	July 21	1361	{ 361 362 }	56	278
Air-purifier	J. W. Collins	447,942	Mar. 10	1099	276	54	1333
Air-ship	J. Arbtin	462,612	Nov. 3	614	{ 153 154 }	57	609
Air-superheater	F. C. Peteler	458,037	Aug. 18	1821	475	56	892
Air systems. Automatic separator for compressed	V. Popp	446,014	Feb. 10	821	198	54	680
Air-tension gage	W. E. Nickerson and A. Berrenberg ..	450,795	Apr. 21	1780	{ 432 433 }	55	362
Air to pneumatic motors. Apparatus for supplying compressed	F. H. Richards	446,822	Feb. 17	2130	529	54	949
Alarm:							
See Boiler-alarm. High and low water alarm.							
Burglar-alarm. Low-water alarm.							
Electric alarm. Railway danger alarm.							
Electrical alarm. Railway-signal alarm.							
Fire-alarm. Show-case alarm.							
Fire or burglar alarm. Steam-generator alarm.							
Fire or other alarm. Temperature-alarm.							
Fish-bite alarm. Till-alarm.							
Grain-bin alarm. Time-alarm.							
Water-alarm.							
Alarm-lock	J. Hutber	462,710	Nov. 10	775	202	57	709
Alarm-lock	M. Michels and J. Pauly	459,069	Sept. 8	820	199	56	1232
Alarm-lock	J. H. Smith, G. Thomson, and H. A. Closser.	458,600	Sept. 1	79	18	56	1081
Alarm-lock	J. Swihart	456,783	July 28	2385	627	56	479
Alarm-signal	M. A. O'Donnell	451,639	May 5	303	71	55	636

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g	Vol.	Page.
Album	B. Branner	463,030	Nov. 10	1280	332	57	808
Album	G. Schwab	462,590	Nov. 3	583	144	57	663
Album-leaf	G. Schwab	462,591	Nov. 3	584	144	57	663
Album. Photograph	A. W. Brewerton and M. R. Szameit	454,844	June 30	2548	655	55	1661
Alcohol from sugar-cane. Apparatus for manufacturing	G. Descamps	451,679	May 5	359	88, 89	55	647
Alcohol. Producing	A. Springer	457,799	Aug. 18	1428	.....	56	819
Alizarine derivative	R. E. Schmidt	446,892	Feb. 24	2265	.....	54	981
Alizarine derivative	R. E. Schmidt	446,893	Feb. 24	2265	.....	54	981
Alkaline carbonate and chlorine. Making	F. M. Lyte	462,567	Nov. 3	551	134	57	656
Alloy	A. W. Cadman	464,147	Dec. 1	210	.....	57	1176
Alloy	J. W. Langley	451,406	Apr. 28	2741	.....	55	555
Alloy. Aluminium	J. W. Langley	451,405	Apr. 28	2740	.....	55	555
Alloy. Aluminium	J. A. Jeançon	446,351	Feb. 10	1397	.....	54	789
Alloy and producing it	H. Marbeau	457,205	Aug. 4	429	.....	56	613
Alloy. Anti-friction	C. B. Miller	456,898	July 28	2571	.....	56	512
Alloy. Metallic	T. MacKellar	463,427	Nov. 17	1927	.....	57	941
Alloy. Steel or metallic	R. A. Hadfield	461,333	Oct. 13	1217	.....	57	243
Alloys. Making	S. Singley	464,395	Dec. 1	603	.....	57	1248
Alloys of aluminium. Manufacturing	J. W. Langley	451,404	Apr. 28	2738	.....	55	555
Alumina from bauxite. Obtaining	J. A. Bradburn and J. D. Pennock	461,416	Oct. 20	1373	.....	57	280
Aluminium sulphate to sulphide. Reduction of	P. A. Emanuel	462,245	Nov. 3	40	10	57	559
Aluminium sulphide. Process of and apparatus for preparing	P. A. Emanuel	463,143	Nov. 17	1471	382	57	854
Aluminium. Uniting solderable surfaces with	T. G. F. Dolby	459,611	Sept. 15	1690	424	56	1408
Amalgamating apparatus	H. W. Fiske	460,305	Sept. 29	2772	691	56	1629
Amalgamating apparatus	T. Gemmell	446,706	Feb. 17	1952	{ 486 487 }	54	911
Amalgamating gold, silver, or copper. Steam silver-plated plate for	G. H. Chick	460,946	Oct. 13	634	164	57	131
Amalgamator	H. Cook	458,823	Sept. 1	425	101	56	1147
Amalgamator	J. W. Culmer	452,177	May 12	1193	{ 301 302 }	55	806
Amalgamator	P. B. Mathiason	459,639	Sept. 15	1749	439	56	1419
Amalgamator	C. F. Pike	458,838	Sept. 1	452	109	56	1152
Amalgamator	T. Shannon	458,502	Aug. 25	2578	{ 627 628 }	56	1042
Amber, &c. Apparatus for forming articles of	H. Thürfelder	461,722	Oct. 29	1919	474	57	381
Amber, &c. Apparatus for molding articles of	H. Thürfelder	461,721	Oct. 29	1918	474	57	381
Amber. Molding	F. Egge	445,285	Jan. 27	2094	541	54	432
Amber-molding apparatus	F. Egge	445,284	Jan. 27	2093	540	54	432
Ambulance	J. F. Dugan and T. Sauerbrunn	459,273	Sept. 8	1138	278	56	1294
Ammeter or voltmeter	H. C. Shubert	449,766	Apr. 7	189	47	55	38
Ammonia-absorber	F. Kaiser	452,273	May 12	1334	333	55	834
Ammonia and gas. Making	A. Hennin	459,193	Sept. 8	1018	249	56	1270
Ammonia. Apparatus for making anhydrous	P. J. McMahon	445,331	Jan. 27	2158	{ 559 560 561 }	54	447
Ammonia. Apparatus for producing anhydrous	D. L. Holden	453,005	May 26	2525	639	55	1079
Ammonia from sodium nitrate. Manufacture of	H. E. Baudouin and E. T. H. Delort	454,108	June 16	1390	363	55	1428
Ammonia. Manufacturing nitrate of	R. S. Penniman	448,361	Mar. 17	1798	454	54	1479
Ammonia. Preparing nitrate of	R. S. Penniman	448,362	Mar. 17	1801	454	54	1479
Ammonia-still	D. L. Holden	460,137	Sept. 29	2519	627	56	1580
Ammonia-still	G. Stroh and G. Osius	458,798	Sept. 1	373	90	56	1136
Ammonium sulphite. Making	P. de Lachomette	452,378	May 19	1512	374	55	877
Ammunition-charger	D. Wiget	466,209	Dec. 29	3530	903	57	1847
Anchor	A. McDougall	445,816	Feb. 3	510	123	54	611
Anchor	W. W. Smith	451,582	May 5	207	49, 50	55	619
Anchor-riprap	D. Neale	465,968	Dec. 29	3137	804	57	1771
Anchors. Apparatus for sinking disk	J. W. Nier	453,712	June 9	848	219	55	1316
Anchors. Construction of	J. F. Hall and J. Verity	452,954	May 26	2443	616	55	1063
Andiron	J. H. and J. A. Kimbro	464,437	Dec. 1	660	162	57	1261
Angle-engine	R. C. Berry	453,852	June 9	1036	271	55	1353
Animal-grip	E. A. Stiles	445,663	Feb. 3	236	64	54	558
Animal-shears	P. Blackie and J. Nisbet	460,357	Sept. 29	2858	712	56	1645
Animal-stock	W. Stemen	454,501	June 23	1990	517	55	1552
Animal-trap	H. C. Anderson	451,745	May 5	466	114	55	667
Animal-trap	G. Andrews	465,011	Dec. 15	1581	403	57	1457
Animal-trap	C. W. Barkley	451,015	Apr. 28	2139	529	55	438
Animal-trap	S. Bassinger	448,313	Mar. 17	1719	{ 435 436 }	54	1464
Animal-trap	J. Bläsi	452,209	May 12	1238	312	55	815
Animal-trap	M. Burton	458,218	Aug. 25	2097	543	56	953
Animal-trap	J. H. Edwards	465,056	Dec. 15	1656	432	57	1469
Animal-trap	G. J. Frost	459,163	Sept. 8	972	236	56	1262
Animal-trap	S. M. Gragg and W. T. Wigger	461,079	Oct. 13	825	212	57	166
Animal-trap	J. A. Haney and F. J. O'Connell	465,780	Dec. 22	2825	724	57	1702
Animal-trap	J. T. T. Kisinger	449,857	Apr. 7	326	83	55	65
Animal-trap	J. T. T. Kisinger	462,715	Nov. 10	783	294	57	712
Animal-trap	J. S. Knowels	451,057	Apr. 28	2192	542	55	449
Animal-trap	J. F. Lyons	458,399	Aug. 25	2418	589	56	1012
Animal-trap	H. H. May	444,760	Jan. 13	1230	320	54	249
Animal-trap	E. L. McClain	454,657	June 23	2251	578	55	1597
Animal-trap	J. W. Murphy and J. Lennon	450,471	Apr. 14	1253	306	55	845
Animal-trap	J. W. Murphy and J. Lennon	464,479	Dec. 1	724	177	57	1272
Animal-trap	D. R. Page	464,889	Dec. 8	1353	340	57	1503
Animal-trap	J. Picard	451,639	May 5	596	147	55	693
Animal-trap	G. Potter	461,710	Oct. 20	1902	{ 470 471 }	57	378
Animal-trap	A. C. Skinner	451,163	Apr. 28	2355	585	55	483
Animal-trap	G. H. Smith	446,119	Feb. 10	991	244	54	712
Animal-trap	H. H. Thiellesen	463,011	Nov. 10	1250	325	57	802
Animal-trap	C. B. Trumble	465,418	Dec. 15	2252	578	57	1552

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Animal-trap.....	F. Warner.....	450,545	Apr. 14	1355	333	55	267
Animal-trap.....	G. H. Wells, Jr.....	462,343	Nov. 3	193	49	57	587
Animal-trap.....	J. Wigger.....	463,238	Nov. 17	1618	422	57	882
Animal-trap.....	J. H. Wilson.....	455,243	June 30	3263	827	55	1799
Animal-trap. Self-setting.....	H. U. Buck.....	459,453	Sept. 15	1435	360	56	1360
Animal-trap setter.....	A. Maul.....	446,921	Feb. 24	2318	576	54	991
Animal-tread.....	J. R. Bevil.....	454,200	June 16	1531	402 403	55	1456
Animals. Horn-tip for.....	T. Cummins.....	456,887	July 28	2557	672	56	510
Animals. Nose-band for.....	J. W. Kea.....	453,259	June 2	127	34	55	1172
Annealing metals. Bath for.....	S. H. Brown.....	465,156	Dec. 15	1834	.....	57	1502
Annunciating-machine. Coin-controlled.....	H. M. Hamrick.....	452,785	May 26	2169	543	55	1010
Annunciator.....	W. C. Dillman.....	456,803	July 28	2414	637	56	485
Annunciator.....	W. C. Dillman.....	458,947	Sept. 1	618	152	56	1186
Annunciator.....	W. C. Dillman.....	466,159	Dec. 29	3461	885	57	1835
Annunciator.....	J. H. Elfering.....	446,641	Feb. 17	1851	459	54	892
Annunciator.....	L. F. Fouts.....	461,748	Oct. 20	1957	485	57	388
Annunciator.....	M. Garl.....	455,316	July 7	28	7	56	8
Annunciator.....	W. R. McCann and S. S. Creider.....	457,454	Aug. 11	877	227	56	703
Annunciator.....	F. Ritchie.....	459,615	Sept. 15	1695	425	56	1408
Annunciator and indicator system.....	J. E. A. Miller.....	447,195	Feb. 24	2791	690	54	1079
Annunciator and telephone system. Combined.....	J. C. Francis.....	447,768	Mar. 10	802	199	54	1277
Annunciator apparatus.....	R. P. Garsed.....	453,314	June 2	209	56	55	1187
Annunciator-drop.....	H. C. Shriver.....	452,585	May 19	1849	464	55	938
Annunciator. Electric.....	F. C. Colville.....	466,063	Dec. 29	3315	846	57	1806
Annunciator. Electric.....	A. Hormel.....	444,245	Jan. 6	429	108	54	84
Annunciator. Electrical.....	W. E. Cram.....	447,558	Mar. 3	474	116	54	1206
Annunciator. Electrical.....	W. F. Harte and C. A. Gerold.....	455,016	June 30	2878	731 732	55	1724
Annunciator. Electrical.....	J. B. Smith.....	463,001	Nov. 10	1237	322	57	799
Annunciator for the supposed dead.....	W. H. White.....	465,548	Dec. 22	2478	632	57	1635
Annunciator. Heat.....	A. Reinemann.....	450,425	Apr. 14	1191	291	55	234
Annunciator. Pneumatic.....	W. H. Hunt.....	456,824	July 28	2447	644 645	56	491
Annunciator. Polarized.....	E. P. Warner.....	448,169	Mar. 10	1448	370	54	1403
Annunciator restoring device.....	R. P. Garsed.....	458,160	Aug. 25	2005	519	56	936
Annunciator. Train-order.....	L. T. Crabtree.....	448,125	Mar. 10	1379	353	54	1389
Ant-exterminator.....	M. Barthel.....	459,246	Sept. 8	1101	268	56	1286
Anti-trap.....	S. A. Walker.....	464,535	Dec. 8	817	201	57	1300
Anti-corrosive and anti-fouling compound.....	M. E. Dejonge.....	457,342	Aug. 11	704	.....	56	669
Anti-friction block.....	A. A. Young.....	452,154	May 12	1150	291	55	798
Anti-friction compositions. Making.....	J. Harris and G. Wass.....	457,417	Aug. 11	824	.....	56	693
Anti-rattler nut-lock and thill-support. Combined.....	A. J. Giddings.....	455,527	Jan. 27	2445	637	54	501
Anti-snoring device.....	L. H. Shaw.....	460,451	Sept. 29	2977	745	56	1668
Antipyrine and iodine. Compound of.....	E. Ostermayer.....	454,223	June 16	1561	.....	55	1462
Anvil attachment.....	B. Wharton.....	466,208	Dec. 29	3529	903	57	1847
Apron.....	C. A. Filkins.....	445,548	Feb. 3	31	8	54	517
Aqua-ammonia engines. Method of and apparatus for operating.....	C. L. Horack.....	453,444	June 2	423	110	55	1227
Aquarium.....	G. P. A. Gunther.....	460,809	Oct. 6	428	106	57	85
Arc light.....	R. H. Mather.....	446,109	Feb. 10	977	240 241	54	709
Arc-light system.....	C. J. Schwarze.....	446,298	Feb. 10	1323	322	54	773
Arch. Fire-proof.....	F. L. Henghes.....	448,233	Mar. 17	1567	400	54	1435
Arm. Artificial.....	T. Sparham.....	450,476	Apr. 14	1261	308	55	247
Arm-rest.....	J. W. Aldrich.....	456,929	Aug. 4	2	1	56	533
Arm-rest.....	F. A. Brooks.....	459,087	Sept. 8	844	204	56	1236
Arm-rest.....	G. B. Steinhauer.....	455,583	July 7	465	121	56	90
Arm-support.....	R. J. Davis.....	459,134	Sept. 8	926	223	56	1253
Armature.....	L. C. Atwood.....	450,552	Apr. 14	1364	336	55	269
Armature connection for motors or generators.....	T. A. Edison.....	465,970	Dec. 29	3140	805	57	1772
Armature-core for dynamo-electric machines.....	E. Thomson.....	463,671	Nov. 24	2322	609	57	1025
Armature for dynamo-electric generators.....	S. H. Short.....	462,881	Nov. 10	1053	273	57	763
Armature for dynamo-electric machines.....	L. A. McCarthy.....	458,236	Aug. 25	2131	552 553	56	959
Armature for dynamo-electric machines.....	E. W. Rice, Jr.....	455,887	July 14	954	249	56	191
Armature for dynamo-electric machines.....	S. H. Short.....	462,882	Nov. 10	1054	274	57	764
Armature for dynamo-electric machines and motors.....	J. Beattie, Jr.....	459,923	Sept. 22	2192	550	56	1511
Armature for dynamo-electric machines or motors.....	R. Lundell.....	459,366	Sept. 8	1282	316	56	1323
Armature for dynamo-electric machines or motors.....	E. Thomson.....	452,951	May 26	2440	615	55	1062
Armature for dynamos.....	F. L. McGahan.....	455,971	July 14	1080	222	56	213
Armature for dynamos and electric motors.....	S. V. Day.....	464,216	Dec. 1	330	80	57	1196
Armature for dynamos or electric motors.....	B. D. Southard.....	463,174	Nov. 17	1524	396 397	57	863
Armature for dynamos or motors.....	T. A. Edison.....	465,973	Dec. 29	3147	806	57	1774
Armature for dynamos or motors and winding the same.....	F. A. Wessel.....	457,065	Aug. 4	211	51, 52	56	573
Armature for electric motors.....	C. J. Van Depoele.....	461,296	Oct. 13	1164	297	57	233
Armature for electric motors and generators.....	P. Grant.....	451,242	Apr. 28	2502	616 617	55	509
Armature for electric motors or dynamos.....	R. Lundell.....	461,795	Oct. 20	2043	503 504	57	404
Armature for electric motors or generators.....	J. F. McLaughlin.....	458,856	Sept. 1	476	114 115	56	1157
Armature for motors and generators.....	N. C. Bassett.....	456,925	July 28	2627	688	56	523
Armature-winding for dynamo-electric machines.....	C. R. Arnold.....	464,547	Dec. 8	831	204 205	57	1302
Armor-plate and manufacturing the same.....	H. A. Brustlein.....	450,713	Apr. 21	1655	398 399	55	338
Armor-plate. Decrementally-hardened.....	H. A. Harvey.....	460,262	Sept. 29	2694	671	56	1615
Armor-plating.....	M. F. Coomes and A. W. Hyde.....	457,525	Aug. 11	988	252	56	725
Artist's color-box.....	J. Bicknell.....	461,068	Oct. 13	808	206	57	162
Artist's kit.....	G. Dieterich.....	458,155	Aug. 25	1999	518	56	935
Asbestos. Demagnetizing.....	H. W. Johns.....	461,579	Oct. 20	1689	57	338

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Asbestos from crushed rock. Apparatus for separating	H. Powers	455,638	July 7	550	143	56	106
Ash-arrester	P. Schickler	462,067	Oct. 27	2463	610	57	494
Ash-can	L. H. Chubbuck	459,972	Sept. 22	2257	566	56	1523
Ash-pan	S. B. Dexter	450,005	Apr. 7	532	133	55	103
Ash-pan and boiler cleaner	W. J. Brennan and C. A. Pitcher	464,272	Dec. 1	438	102	57	1216
Asparagus-buncher	E. Watts	459,426	Sept. 15	1398	349	56	1354
Assay-furnace	P. D. Ricketts and E. R. Bush	463,712	Nov. 24	2394	628	57	1038
Assorting-machine	H. H. Hutchins	456,092	July 14	1245	327 328	56	245
Athlete's supporter	J. J. Pfister	452,529	May 19	1765	444	55	923
Atomizer	C. F. Bachler	447,599	Mar. 3	534	131	54	1218
Atomizer	E. T. Bates	460,458	Sept. 29	2995	750	56	1671
Atomizer	A. H. Brown	454,709	June 23	2328	598	55	1614
Atomizer	E. T. Kassel	446,256	Feb. 10	1251	305	54	759
Atomizer	A. Leslie	461,349	Oct. 13	1247	318	57	250
Atomizer	R. Lockwood	453,650	June 9	745	192	55	1297
Atomizer	R. Lockwood	454,055	June 16	1313	342	55	1415
Atomizer	H. Robinson	456,205	July 21	1423	377	56	289
Atomizer	J. Schoettl	451,643	May 5	307	74	55	637
Atomizer	A. M. Shurtleff	447,064	Feb. 24	2555	634	54	1035
Atomizer	A. M. Shurtleff	451,078	Apr. 28	2218	549	55	454
Atomizer	A. M. Shurtleff	451,079	Apr. 28	2218	549	55	455
Atomizer or pulverizer. Liquid	F. F. Bourdill	465,013	Dec. 15	1583	404	57	1457
Auger. Vaginal	W. E. Weldon	445,579	Feb. 3	91	22	54	529
Auger	W. Brede and L. A. de la Nux	450,908	Apr. 21	1957	480	55	396
Auger	M. H. Jones	444,956	Jan. 20	1594	407	54	326
Auger-bit	E. Ford	461,897	Oct. 27	2204	544	57	445
Auger-handle	G. G. Dutton and J. Lee	451,867	May 5	637	159	55	699
Auger-handle	F. M. Hay	461,529	Oct. 20	1616	395	57	324
Auger-handle	H. Naylor	451,293	Apr. 28	2582	637	55	526
Auger-handle	L. H. Sargent, Jr	453,667	June 9	771	199	55	1302
Auger or boring-tool	T. Charlton	461,666	Oct. 20	1830	452 453	57	364
Auger. Well-	J. Goar	456,486	July 21	1887	499	56	377
Augers. Manufacture of single-spiral	A. O. Spring	453,052	May 26	2597	657	55	1093
Autograph-recorder	T. B. Dooley	465,466	Dec. 22	2326	597	57	1606
Autograph registering-machine	W. H. Griffiths	460,389	Sept. 29	2898	724	56	1653
Autographic manifolding and registering machine	J. W. Dick and A. L. Eastin	462,665	Nov. 3	689	174 175	57	683
Autographic register	J. B. Thies	465,502	Dec. 22	2391	612	57	1618
Autographic register	C. J. Weinman, E. E. Euchenhofer, and W. M. Kinnard	455,445	July 7	233	60	56	47
Autographic registering apparatus	J. B. Thies	455,444	July 7	230	59	56	47
Autographic registering apparatus	J. E. Peirce	464,267	Dec. 1	422	100	57	1214
Automatic brake	C. K. Pickles	451,899	May 5	682	173	55	708
Automatic camera	E. G. Fisher and R. McFarlane	444,488	Jan. 13	797	207 208	54	167
Automatic gate	P. M. Fudge	462,042	Oct. 27	2430	602	57	488
Automatic gate	B. Harvey	460,363	Sept. 29	2865	715	56	1646
Automatic gate	H. G. Huntington	465,110	Dec. 15	1758	444	57	1489
Automatic gate	J. C. Laporte	459,007	Sept. 8	717	176	56	1213
Automatic gate	M. B. Robeson	453,662	June 9	761	197	55	1300
Automatic lubricator	C. A. Pierce	450,421	Apr. 14	1186	289	55	233
Automatic pneumatic brake	W. T. Bothwell	444,146	Jan. 6	278	66	54	57
Automatic regulator	B. A. Hawkins	462,005	Oct. 27	2375	588	57	477
Automatic sprinkler	A. F. Nagle	447,004	Feb. 24	2442	407	54	1014
Automatic switch	H. M. Abernethy	463,412	Nov. 17	1909	498 499	57	937
Automatic ventilator and foul-air exhauster	J. H. Hunt	461,873	Oct. 27	2167	534	57	438
Automaton	A. M. Pierce	464,268	Dec. 1	424	100	57	1215
Automaton. Walking	G. R. Moore	454,570	June 23	2093	539 540	55	1570
Auxiliary engine	J. J. Hanlon	462,925	Nov. 10	1139	294	57	779
Awl. Scratch-	F. Philip	445,380	Jan. 27	2226	577	54	460
Awning	J. H. Dyett	448,759	Mar. 24	2441	611	54	1608
Awning	C. W. Linder	459,078	Sept. 8	831	202	56	1233
Awning	F. Schreiber	449,377	Mar. 31	3449	868	54	1805
Awning	W. H. Wallace, Jr	458,875	Sept. 1	522	127	56	1165
Awning and window-blind. Combined	J. C. Gittings	454,907	June 30	2659	681	55	1682
Awning-brace	E. A. King and A. J. Carr	445,718	Feb. 3	323	87	54	578
Awning-frame. Window-	C. W. Stebbins	446,480	Feb. 17	1610	395	54	845
Awning-pole clasp	H. Caspar	461,069	Oct. 13	809	206	57	163
Awning. Window-	W. H. Newton	462,324	Nov. 3	168	43	57	582
Ax	B. Beck	464,910	Dec. 8	1382	348	57	1408
Ax	J. W. Carver	445,160	Jan. 27	1907	492	54	397
Ax	C. W. Hubbard	457,646	Aug. 11	1172	300	56	761
Ax	I. M. Spencer	463,002	Nov. 10	1239	323	57	800
Ax-handle fastening	J. M. Didero	456,802	July 28	2413	636 637	56	485
Ax-head	J. M. Holladay	447,685	Mar. 3	656	163	54	1242
Ax-helve fastener	H. M. Martin	445,730	Feb. 3	362	91	54	582
Axes. Manufacture of	S. H. Brown	461,418	Oct. 20	1375	348	57	280
Axes. Manufacture of	C. W. Hubbard	444,836	Jan. 20	1348	350	54	280
Axle	W. H. Curtis	463,621	Nov. 24	2245	591	57	1011
Axle	B. H. Kemble	453,840	June 9	1026	268	55	1351
Axle	H. C. Shultz	463,797	Nov. 24	2508	655	57	1060
Axle	J. A. Stewart	449,638	Mar. 31	3864	968	54	1884
Axle. Adjustable vehicle-	D. C. Crawford	454,397	June 16	1820	476	55	1510
Axle and bolster. Vehicle	L. P. Priestedt	444,590	Jan. 13	960	249	54	199
Axle and journal box	W. L. Eveland	452,751	May 19	2117	532	55	991
Axle-arm for railway-cars	P. Rizzoni	465,204	Dec. 15	1905	483	57	1516
Axle arm. Vehicle-	P. McMenamin	455,239	June 30	3255	826	55	1797

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Axle-bearing.....	S. S. Arnold.....	461,728	Oct. 20	1926	476	57	382
Axle-bearing.....	D. W. Copeland.....	447,298	Mar. 3	21	6	54	1122
Axle-bearing.....	S. B. Goff.....	447,608	Mar. 3	550	136	54	1221
Axle-bearing.....	A. R. Hamilton.....	447,513	Mar. 3	409	100	54	1195
Axle bearing, Car.....	W. B. Smith.....	444,943	Jan. 20	1566	401 402	54	321
Axle bearing, Car.....	M. E. Thomas and H. S. Coleman.....	450,800	Apr. 21	1786	434	55	364
Axle-blanks, Manufacture of.....	N. P. H. Hugus.....	455,594	July 7	481	125	56	93
Axle-box.....	T. Clements.....	458,146	Aug. 18	1985	514	56	925
Axle-box.....	W. S. Morden.....	450,716	Apr. 21	1659	400	55	339
Axle-box attachment, Car.....	F. B. Harrison.....	458,364	Aug. 25	2355	574	56	1001
Axle box, Car.....	D. Barckdall.....	447,271	Feb. 24	2926	727	54	1106
Axle box, Car.....	W. Cross.....	448,130	Mar. 10	1390	355	54	1391
Axle box, Car.....	G. F. Godley.....	451,195	Apr. 28	2427	600	55	494
Axle box, Car.....	D. B. James.....	453,117	May 26	2707	692	55	1115
Axle-box, Car.....	T. B. Stewart.....	460,604	Oct. 6	89	25	57	20
Axle-box extension for vehicles.....	W. B. Beagle and W. C. Clark.....	452,539	May 19	1779	448	55	925
Axle box lid, Car.....	R. Soutter.....	461,203	Oct. 13	1021	259	57	202
Axle box, Railway.....	L. Elbert.....	447,148	Feb. 24	2712	672	54	1063
Axle boxes, Dust-guard for car.....	F. J. Cole and E. W. Grieves.....	444,241	Jan. 6	423	106	54	83
Axle boxes, Dust-guard for car.....	A. L. Cushman.....	456,479	July 21	1874	495	56	373
Axle boxes, Dust-guard for car.....	J. Petithomme.....	464,107	Dec. 1	150	37	57	1165
Axle boxes, Dust-shield for.....	G. F. Godley.....	451,196	Apr. 28	2428	600	55	494
Axle-boxes, Method of and apparatus for manufac- turing.....	J. Donnelly.....	459,999	Sept. 22	2291	574 575	56	1529
Axle cap, Carriage.....	W. L. F. Wastell and E. T. Day.....	449,786	Apr. 7	220	56	55	45
Axle, Car.....	S. L. Denney.....	448,639	Mar. 24	2247	564	54	1571
Axle, Car.....	S. L. Denney.....	448,640	Mar. 24	2248	564	54	1571
Axle, Car.....	L. Hall, Jr.....	450,230	Apr. 14	879	218	55	176
Axle, Car.....	W. S. Kisinger.....	464,028	Dec. 1	36	10	57	1143
Axle, Car.....	W. A. Lyon and W. E. Sproul.....	449,684	Apr. 7	54	13	55	12
Axle, Car.....	H. N. Pomeroy.....	445,199	Jan. 27	1969	509	54	409
Axle, Car.....	H. P. Willard.....	458,671	Sept. 1	195	45	56	1102
Axle, Carriage.....	C. H. Palmer, Jr.....	457,367	Aug. 11	745	190	56	678
Axle coupling, Vehicle.....	J. I. Morrison.....	455,849	July 14	896	235	56	181
Axle-collar.....	N. Harris.....	451,970	May 12	814	207	55	740
Axle-cutter.....	F. E. Beardsley.....	456,935	Aug. 4	9	2	56	534
Axle-cutter.....	J. Swegles.....	455,835	July 14	881	231	56	178
Axle end bearing, Car.....	J. T. Fanning.....	462,037	Oct. 27	2424	601	57	487
Axle for cars, Adjustable.....	H. Law.....	457,786	Aug. 18	1494	364	56	814
Axle-gage.....	H. F. C. Feus.....	460,434	Sept. 29	2958	739	56	1064
Axle-gage.....	E. G. Harrison and O. B. Thompson.....	453,002	June 9	1242	323 324	55	1393
Axle, Hollow.....	J. James.....	458,056	Aug. 18	1846	482	56	898
Axle journal and box.....	B. H. Kemble.....	453,839	June 9	1025	267	55	1351
Axle-journal and journal-bearing.....	A. E. Smith.....	454,075	June 16	1347	332	55	1421
Axle-journal-bearing, Car.....	G. N. Scoetts.....	447,527	Mar. 3	434	106	54	1199
Axle-lubricator.....	C. W. Brewer.....	450,135	Apr. 14	723	181	55	147
Axle-lubricator.....	H. M. Goodman.....	464,824	Dec. 8	1262	315	57	1385
Axle-lubricator.....	H. M. Goodman.....	465,368	Dec. 15	2183	559	57	1568
Axle-lubricator.....	A. Johnson.....	465,083	Dec. 15	1703	433	57	1479
Axle-lubricator.....	B. H. Kemble.....	453,838	June 9	1024	267	55	1351
Axle-lubricator.....	J. A. Scarborough.....	460,833	Oct. 6	460	116	57	92
Axle-lubricator.....	J. Sharkey.....	444,582	Jan. 13	950	246	54	197
Axle lubricator, Car.....	E. Best.....	457,023	Aug. 4	137	34	56	560
Axle lubricator, Car.....	F. J. Leibmann.....	461,265	Oct. 13	1117	285	57	223
Axle lubricator, Car.....	A. P. Mitchell.....	461,151	Oct. 13	921	238	57	184
Axle lubricator, Car.....	L. J. Phelps.....	454,763	June 23	2401	616	55	1629
Axle lubricator, Vehicle.....	J. L. House.....	463,682	Nov. 24	2340	614	57	1028
Axle-making machine.....	W. L. Morris.....	458,685	Sept. 1	217	51	56	1107
Axle-nut.....	J. L. House.....	444,053	Jan. 6	110	28	54	25
Axle nut, Adjustable.....	T. E. Sigle and A. R. Wenger.....	459,842	Sept. 22	2057	517	56	1486
Axle nut, Vehicle.....	J. Hansen.....	450,311	Apr. 14	1002	248	55	199
Axle-nut wrench.....	S. L. Bligh.....	462,028	Nov. 10	1278	331	57	808
Axle, Self-oiling car.....	R. P. Sholl.....	455,841	July 14	888	233	56	179
Axle-setting machine.....	G. W. Hunter.....	454,213	June 16	1516	407	55	1459
Axle-skein for vehicles.....	L. L. Tapp.....	449,979	Apr. 7	497	124	55	96
Axle spindle and box.....	H. Wallace.....	461,226	Oct. 13	1063	269	57	212
Axle-spindle nut.....	C. E. Darrow.....	451,390	Apr. 28	2714	674	55	550
Axle, Vehicle.....	O. W. Beach.....	446,416	Feb. 17	1511	372	54	824
Axle, Vehicle.....	J. H. Flagler.....	444,065	Jan. 6	136	34	54	30
Axle, Vehicle.....	A. Johnson.....	456,766	July 28	2362	622	56	475
Axle, Vehicle.....	J. A. Johnson and T. G. Mandt.....	460,873	Oct. 6	516	132	57	101
Axle, Vehicle.....	J. Lewis.....	461,266	Oct. 13	1118	286	57	223
Axle, Wagon.....	L. P. Friestedt.....	444,591	Jan. 13	961	249	54	199
Axle, Wagon.....	J. Mallon.....	466,307	Dec. 29	3693	942	57	1878
Axle, Wagon.....	W. Nehring.....	465,625	Dec. 22	2599	660	57	1657
Axle, Wagon.....	S. E. Oviatt.....	463,668	Nov. 24	2317	608	57	1024
Axle, Wagon.....	M. S. Tyler.....	465,705	Dec. 22	2712	692	57	1680
Axle, Wagon.....	D. R. Van Allen.....	462,181	Oct. 27	2643	661	57	528
Axle-washer.....	T. Gingras.....	444,218	Jan. 6	387	96	54	77
Axles, Ball-bearing for vehicle.....	C. A. Miller and A. M. Griswold.....	460,878	Oct. 6	524	134	57	103
Axles, Device for securing wheels to.....	L. Faris.....	446,335	Feb. 10	1377	336	54	785
Axles, Dust-cap for vehicle.....	J. P. Cutler.....	456,556	July 28	2003	529	56	406
Axles, Dust-guard for car.....	W. McKenzie.....	446,003	Feb. 10	810	196	54	678
Axles, Hub-attaching device for vehicle.....	H. F. Bock.....	444,517	Jan. 13	847	220	54	177
Axles, Journal-bearing for railway.....	M. H. Devore.....	449,109	Mar. 31	2975	752	54	1720
Axles, Machine for forming fan-tail.....	L. D. Hill.....	455,593	July 7	480	124 125	56	93
Axles, Machinery for shaping iron or steel.....	J. T. Rowley.....	445,662	Feb. 3	234	63, 64	54	558
Axles, Manufacture of fan-tail.....	N. P. H. Hugus.....	455,595	July 7	483	125	56	93
Axles, Means for transmitting power to driving.....	G. R. Lean.....	459,785	Sept. 22	1966	496	56	1467
Axles, Method of and die for making crank.....	J. C. Shea.....	454,073	June 16	1345	351 352	55	1420

Alphabetical list of inventions—Continued.

Invention.	Name	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Axles. Mill for rolling fan-tail	L. D. Hill	456,570	July 28	2021	534	56	410
Axles or shafts. Manufacture of	C. Lock	451,676	May 5	357	88	55	647
Axles. Process of and apparatus for making	W. J. Parmelee	454,685	June 23	2291	587	55	1606
Axles. Process of and apparatus for making fan-tail	W. J. Parmelee	459,765	Sept. 22	1937	488 489	56	1462
Axles. Rolls for manufacturing car-	D. L. Evans	444,746	Jan. 13	1204	312	54	244
Baby-jumper	C. L. Barnhart	459,670	Sept. 15	1792	451	56	1437
Baby-jumper	R. Billeaux	450,394	Apr. 14	1139	270	55	224
Baby-jumper	L. E. Durham	452,998	May 26	2518	637	55	1077
Baby-jumper	G. W. Thomas	462,178	Oct. 27	2638	660	57	527
Baby-jumper	F. E. Wilder	458,136	Aug. 18	1964	509	56	921
Baby-walker	A. Burkholder. (Reissue)	11,140	Jan. 20	1893	488	54	385
Baby-walker	H. W. Lawson	451,128	Apr. 28	2299	570	55	470
Baby's chair	C. D. Koeser	451,058	Apr. 28	2194	542	55	449
Back-band	W. L. Johnson	444,296	Jan. 6	497	129	54	99
Back-brace	W. T. Aaron	452,206	May 12	1235	312	55	815
Back-stay protector	O. J. Rieley	459,766	Sept. 22	1940	489	56	1463
Badge	L. O. Keil	464,365	Dec. 1	564	138	57	1242
Badge. Campaign	H. Phillips	450,524	Apr. 14	1331	327	55	262
Badge. Society	J. L. Thornton	457,098	Aug. 4	258	67	56	582
Bag:							
See Feed-bag.	Nose-bag.						
Hand-bag.	Paper bag.						
Knitted bag.	Shoulder-strap bag.						
Mail-bag.	Striking-bag.						
Mail and express bag.	Tobacco-bag.						
Bag and head-rest. Combined	S. A. Darrach	453,926	June 9	1136	297	55	1372
Bag-blanks. Machine for making tubular	J. Arkell	447,065	Feb. 24	2557	634	54	1035
Bag-fastener	E. Reist	461,848	Oct. 27	2126	524	57	429
Bag-fastening	E. Oldenbusch	449,912	Apr. 7	404	101	55	79
Bag-fastening	E. Oldenbusch	450,870	Apr. 21	1908	468	55	385
Bag-fastening. Traveling	J. Bannach	444,205	Jan. 6	368	91	54	74
Bag-fastening. Traveling	C. F. Kurz	456,040	July 14	1181	310	56	233
Bag-frame	B. Mayer	448,139	Mar. 10	1404	358	54	1394
Bag-frame brace or stay	W. Roemer	462,851	Nov. 10	1008	260	57	755
Bag handle	R. Eissenman and H. Van Bree	457,112	Aug. 4	276	72	56	586
Bag-holder	W. G. Adams	460,698	Oct. 6	273	66	57	54
Bag-holder	J. Davnie	452,216	May 12	1249	316	55	818
Bag-holder	E. Henretty	453,636	June 9	725	187	55	1293
Bag-holder	J. M. Holladay	447,686	Mar. 3	657	163	54	1242
Bag-holder	D. D. Huyett	452,850	May 26	2266	568	55	1029
Bag-holder	W. H. Penderly	445,195	Jan. 27	1963	508	54	407
Bag-holder	O. G. Nosker and P. E. Whitson	450,747	Apr. 21	1699	411	55	347
Bag-holder	N. R. Streeter	458,862	Sept. 1	491	120	56	1158
Bag-holder	J. D. Timmerman	461,291	Oct. 13	1155	294	57	231
Bag-holding apparatus	J. A. Traut and C. E. Riecker	448,791	Mar. 24	2490	623	54	1618
Bag-lock	M. V. Mitchell	454,058	June 16	1318	344	55	1415
Bag-making machine	W. H. Kerr	445,351	Jan. 27	2190	567 568 569	54	453
Bag-making machine. Three-cornered	A. Baron and J. T. Bibby	460,907	Oct. 6	581	147	57	114
Bag-tie	J. H. Green	466,301	Dec. 29	368-3	941	57	1876
Bag-tie	M. R. Haskins	448,614	Mar. 17	2195	549	54	1554
Bags. Converting plain into bellows-folded satchel-bottom	E. E. Claussen	451,915	May 12	735	184 185	55	725
Bags. Making	W. H. Kerr	445,329	Jan. 27	2156	558	54	446
Bagasse-furnace	F. Cook	455,173	June 30	3157	801	55	1778
Bagasse-furnaces. Carrier for feeding	F. Cook	449,464	Mar. 31	3585	903	54	1831
Baggage and parcel carrier	M. D. Kalbach	460,392	Sept. 29	2903	725	56	1653
Bait-bending machine	E. W. Spear	461,877	Oct. 27	2174	536	57	439
Bait-lock	W. Boyrer	455,493	Jan. 27	2390	622	54	492
Bait and drinking cup. Combined	J. Fowler	457,462	Aug. 11	1169	299	56	760
Bait-cage	S. Moulson	455,758	July 14	753	198	56	154
Bait. Spoon	G. M. Skinner	465,215	Dec. 15	1919	488	57	1519
Bait. Spoon	G. M. Skinner	465,704	Dec. 22	2711	691	57	1680
Bake-pan	S. Aaronson	452,656	May 19	1958	491	55	960
Bake-pan	A. J. Iden	445,996	Feb. 10	802	194	54	677
Bake-pan	C. Schifferly	448,548	Mar. 17	2079	521	54	1533
Baking-machine	H. N. and C. E. Fowler	444,379	Jan. 6	616	158 159 160 161	54	122
Baking or cooking vessel	K. M. Dean	463,492	Nov. 17	2017	529	57	959
Baking or roasting pan	A. C. Daggett	464,685	Dec. 8	1049	262	57	1341
Baking-pan	M. F. Harley	457,775	Aug. 18	1384	358	56	811
Baking-pan	J. B. Travers	448,559	Mar. 17	2092	525	54	1535
Baking-pan	A. S. Zoeggele and T. H. Murphy	463,590	Nov. 17	2182	576	57	990
Baking-powder. Packing	W. P. Clotworthy	462,109	Oct. 27	2539	631	57	508
Baking-powder. Packing	W. P. Clotworthy	462,206	Oct. 27	2687		57	537
Baking, roasting, and steaming apparatus	W. H. Perry	448,886	Mar. 24	2633	662	54	1644
Baking-tin	R. H. Wells	457,542	Aug. 11	1017	261	56	730
Balance. Automatic	C. Schenck	457,733	Aug. 11	1315	341 342 343	56	790
Balance-wheel	J. S. Wright	444,051	Jan. 6	159	40	54	34
Bale-bands. Machine for applying heads or hooks to wire	F. B. Griswold	464,663	Dec. 8	1008	252 253	57	1337
Bale-box attachment	W. Sanders	452,287	May 12	1357	338	55	839
Bale-covering	M. A. Heath	448,487	Mar. 17	1998	500	54	1516
Bale of cotton or like material. Incased	P. K. Dederick	457,634	Aug. 11	1158	296	56	757
Bale-tie	W. B. Curtis	448,830	Mar. 24	2544	638	54	1628
Bale-tie	J. G. Farley	462,942	Nov. 10	1160	300	57	784
Bale-tie	W. A. Kilmer	448,964	Mar. 24	2750	694	54	1668
Bale-tie	E. E. Reed and K. M. Turner	457,292	Aug. 4	577	153	56	640

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Bale-tie	J. J. Yeates, Jr.	458,137	Aug. 18	1966	510	56	921
Bale-tie fastener	D. W. Gish	448,092	Mar. 10	1241	315	54	1360
Bale-tie machine	W. E. Gladding	465,758	Dec. 22	2793	715	57	1696
Bale-tie machine. Wire	W. A. Laidlaw and E. M. Cowley ..	461,348	Oct. 13	1241	{ 316 317 }	57	248
Bale-tie. Wire	J. D. Coon	456,647	July 28	2152	570	56	437
Bale-ties. Machine for making	C. B. Brainard	463,593	Nov. 17	2189	{ 577 578 }	57	991
Bales. Band-tie for cotton	J. M. Larkin	461,530	Oct. 20	1617	395	57	324
Baling cotton	J. G. Goldthwaite	460,747	Oct. 6	345	84, 85	57	68
Baling-press	C. T. Anderson	457,177	Aug. 4	377	96	56	605
Baling-press	J. F. Ashley	458,043	Aug. 18	1830	477	56	894
Baling-press	C. E. Bates	455,731	July 14	713	189	56	147
Baling-press	A. H. Brickley	461,157	Oct. 13	931	241	57	186
Baling-press	J. W. Brown	446,128	Feb. 10	1010	249	54	716
Baling-press	M. S. Coleman	445,045	Jan. 20	1723	444	54	352
Baling-press	P. K. Dederick	457,631	Aug. 11	1152	294	56	756
Baling-press	P. K. Dederick	457,633	Aug. 11	1156	{ 295 296 }	56	757
Baling-press	P. K. Dederick	457,635	Aug. 11	1158	297	56	757
Baling-press	P. K. Dederick	457,636	Aug. 11	1161	297	56	758
Baling-press	B. A. Ferguson	455,261	June 30	3341	844	55	1814
Baling-press	J. G. Goldthwaite	400,009	Sept. 22	2307	579	56	1532
Baling-press	J. A. Hampton	459,630	Sept. 15	1731	{ 434 435 }	56	1415
Baling-press	W. H. Howard	450,585	Apr. 14	1408	347	55	278
Baling-press	M. C. Jackson	447,950	Mar. 10	1113	{ 279 280 }	54	1336
Baling-press	J. B. Johnson	464,613	Dec. 8	924	{ 227 228 }	57	1322
Baling-press	J. R. Johnson	452,755	May 19	2124	534	55	993
Baling-press	D. A. Keena	444,194	Jan. 6	353	86, 87	54	71
Baling-press	H. G. Klockmann	450,942	Apr. 21	1999	492	55	404
Baling-press	W. R. Moseley	456,834	July 28	2468	649	56	494
Baling-press	L. T. Nichols	458,478	Aug. 25	2537	618	56	1034
Baling-press	C. Peterson	454,495	June 23	1978	515	55	1550
Baling-press	J. H. Pickett	461,044	Oct. 13	775	198	57	157
Baling-press	E. M. Pine	456,057	July 14	1202	316	56	237
Baling-press	W. S. Reeder	462,930	Nov. 10	1145	296	57	780
Baling-press	M. O. Reeves	437,369	Aug. 11	750	192	56	679
Baling-press	J. Rowe	463,076	Nov. 10	1357	351	57	823
Baling-press	P. M. Sanders	450,301	Apr. 14	980	243	55	194
Baling-press	P. C. Southwick	458,641	Sept. 1	146	34, 35	56	1094
Baling-press	W. G. Tuten	457,173	Aug. 4	369	94, 95	56	603
Baling-press	C. E. Whitman	453,098	May 26	2685	{ 676 677 }	55	1110
Baling-press	C. E. Whitman	463,929	Nov. 24	2730	708	57	1101
Baling-press	H. L. Whitman	446,311	Feb. 10	1339	{ 326 327 }	54	777
Baling-press	A. Wickey	449,189	Mar. 31	3102	782	54	1743
Baling-press	A. Wickey	459,503	Sept. 15	1509	378	56	1374
Baling-press	A. Wickey	459,504	Sept. 15	1511	378	56	1375
Baling-press	A. Wickey	463,673	Nov. 24	2325	610	57	1025
Baling-press	C. P. Wiggins and J. M. Pollard ..	462,753	Nov. 10	836	220	57	721
Baling-press and method of baling	P. K. Dederick	457,632	Aug. 11	1153	295	56	757
Baling-press feeder	J. W. Brown and A. A. Gehrt ..	465,520	Dec. 22	2424	619	57	1625
Baling-press power	E. C. Sooy	456,239	July 21	1487	395	56	301
Baling-press wiring attachment	J. H. Kruse	446,600	Feb. 17	1784	442	54	879
Baling presses. Device for operating	D. Lostutter	456,703	July 28	2243	594	56	453
Ball:							
<i>See</i> Bowling-ball. Puzzle-ball.							
Ball	F. F. Atkinson	456,920	July 28	2619		56	522
Ball-trap with flexible throwing-arm	F. C. Damm	453,857	June 9	1043	273	55	1354
Ball-trap with flexible throwing-arms	F. C. Damm	455,310	July 7	21	5	56	7
Ballast-loading apparatus	W. Butler and Z. G. Simmons, Jr. .	447,460	Mar. 3	313	78	54	1177
Balling cord, &c. Machine for	A. C. Miller	465,282	Dec. 15	2031	{ 518 519 }	57	1539
Balling machines. Stopping mechanism for twine	J. Aspinall	454,991	June 30	2837	722	55	1716
Ballot-box	W. F. Gaul	455,685	July 7	621	{ 164 165 }	56	121
Ballot-box	C. Jackson	448,524	Mar. 17	2047	{ 512 513 }	54	1526
Ballot-box	E. C. Reiche	456,847	July 28	2490	{ 654 655 }	56	498
Ballot-box	A. Reppmann	455,766	July 14	762	201	56	156
Ballot-paper or voting-ticket	C. K. Adams	448,403	Mar. 17	1864	469	54	1491
Band and tire setting machine	J. H. Samuels	441,547	Jan. 13	894	232	54	186
Band-cutter	J. P. Monnett	452,277	May 12	1339	334	55	835
Band-cutter and feeder	O. Anderson	444,478	Jan. 13	777	{ 202 203 }	54	163
Band-cutter and feeder	C. W. Bond	445,668	Feb. 3	242	66	54	559
Band-cutter and feeder	A. A. Booth	458,885	Sept. 1	533	130	56	1167
Band-cutter and feeder	R. M. Dudley	466,225	Dec. 29	3559	911	57	1853
Band-cutter and feeder	W. G. Huntington	446,973	Feb. 24	2397	597	54	1005
Band-cutter and feeder	E. B. Karn	445,835	Feb. 3	537	131	54	616
Band-cutter and feeder	G. H. Lasar	455,210	June 30	3228	820	55	1792
Band-cutter and feeder	L. Sweet	451,505	June 23	2001	518	55	1553
Band-cutter and feeder	E. S. Wilhite	448,102	Mar. 10	1348	345	54	1383
Band-fastener	E. C. Tecktonius	459,421	Sept. 15	1385	347	56	1351
Band-uniting device	G. H. Avery	465,652	Dec. 22	2639	673	57	1666
Bandage. Anti-snooring	A. Mosterts	447,695	Mar. 3	671	167	54	1245
Bandage. Suspensory	J. C. Chambers	464,768	Dec. 8	1182	293	57	1369
Bandage-winding machine	M. D. Tibbetts	458,864	Sept. 1	493	121	56	1159

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Banjo	B. E. Boyden	449,200	Mar. 31	3118	787	54	1746
Banjo	G. B. Durkee	447,947	Mar. 10	1108	278	54	1335
Banjo	F. Gretsck	456,029	July 14	1169	306	56	230
Banjo	V. Kraske	457,996	Aug. 18	1757	462	56	880
Banjo	H. C. Middlebrooke	463,952	Nov. 24	2762	716	57	1108
Banjo	H. C. Middlebrooke	463,953	Nov. 24	2763	716	57	1108
Banjo	J. Robinson	448,674	Mar. 24	2300	577	54	1581
Banjo	J. M. Smith and G. J. Fritz	451,782	May 5	518	128	55	676
Banjo	W. Titus	447,985	Mar. 10	1180	299	54	1348
Banjo	W. A. Todd	445,385	Jan. 27	2233	578	54	461
Banjo	C. A. Woodhull	450,442	Apr. 14	1215	296	55	238
Banjo tail-piece	H. Fenton	454,728	June 23	2353	604	55	1619
Bank. Automatic registering	R. B. Cooley and S. M. Balzer	454,556	June 23	2069	535	55	1566
Bank. Pocket	W. F. Hutchinson	465,137	Dec. 15	1807	457	57	1497
Bank. Pocket savings	G. Van Zandt	461,176	Oct. 13	967	249	57	192
Bank-protector	J. A. Saxon	448,547	Mar. 17	2078	521	54	1532
Bank-protector	J. A. Saxon	463,549	Nov. 17	2114	556 557 780 781	57	977
Banks from caving. Device for preventing	D. H. Solomon	449,185	Mar. 31	3095	781	54	1742
Banner	H. W. Mundhenk	447,696	Mar. 3	672	167	54	1245
Bar:							
See Bicycle handle-bar. Finger-bar.							
Boring-bar. Fire-bar.							
Car draw-bar. Grate-bar.							
Chain-bar. Harvester cutter-bar.							
Chenille-cutter bar. Hollow bar.							
Cutter-bar. Horseshoe-blank bar.							
Detector-bar. Linotype-bar.							
Draw-bar. Sickle-bar.							
Bar-straightening machine. Round	L. H. Brightman	456,883	July 28	2552	670	56	509
Bars by electricity. Method of and apparatus for heating	E. E. Angell	454,698	June 23	2310	594	55	1610
Bars into helices. Machine for forming	J. Laidlaw	456,829	July 28	2454	646 647	56	492
Bars. Machine for molding and condensing round	J. R. Jones	456,957	Aug. 4	57	13, 14	56	543
Bars or beams. Making flanged	E. L. Clark	451,453	May 5	9	3	55	581
Barber's chair	A. D. Cree	461,494	Oct. 30	1553	381	57	313
Barber's chair	C. Ferst	445,014	Jan. 20	1670	429	54	342
Barber's chair	A. J. Rollert	464,588	Dec. 8	892	219	57	1315
Barber's indicator	C. Van Dusen	463,672	Nov. 24	2324	610	57	1025
Barber's indicator	S. P. Watson	448,392	Mar. 17	1852	466	54	1488
Barge or other vessel	C. J. Seymour	457,622	Aug. 11	1142	291 292	56	755
Bark-cutter	B. Holbrook	453,398	June 2	337	87	55	1211
Bark-mill	A. F. Jones	453,486	June 2	488	126	55	1240
Barometer. Holosteric	O. Möller	459,977	Sept. 22	2263	568	56	1524
Barometrical rose	L. M. Perveil	456,498	July 21	1901	502	56	379
Barrel	J. E. Tinker and G. T. Benjamin	456,099	July 14	1256	331	56	247
Barrel-closure	C. W. Moore	463,252	Nov. 17	1644	428	57	887
Barrel-closure	C. W. Moore	463,253	Nov. 17	1645	428	57	887
Barrel-closure	H. C. Stront	451,415	Apr. 28	2756	692	55	558
Barrel-cover. Sample-exhibiting	H. J. Heinz and R. Hoffman	445,524	Jan. 27	2440	635	54	500
Barrel-former	J. Pleukharp	453,023	May 26	2553	645	55	1084
Barrel-forming and hooping machine	J. Pleukharp	454,764	June 23	2402	616 617	55	1639
Barrel-head wedge	J. A. Campbell	455,607	July 7	504	131	56	97
Barrel heating and pitching apparatus	F. Jung	460,291	Sept. 29	2751	685	56	1625
Barrel-hoop. Wooden	E. C. Tecktonius	465,954	Dec. 29	3113	797	57	1767
Barrel-hooping machine	L. D. Morrison	454,803	June 23	2468	634	55	1640
Barrel-hooping machine	W. H. Potter	450,190	Apr. 14	794	201	55	161
Barrel-hooping machine	M. Rosenow	453,917	June 9	1125	294	55	1370
Barrel-hooping machinery	L. Hunter	454,800	June 23	2463	632 633	55	1639
Barrel. Knockdown	R. W. Baylor	466,294	Dec. 29	3673	939	57	1874
Barrel-machine	J. R. Allgire and D. W. Williamson	452,330	May 12	1438	355	55	853
Barrel-machine	W. Merrill	454,915	June 30	2675	685 686 687 688	55	1685
Barrel-making machine	H. T. Drake	452,666	May 19	1973	495	55	963
Barrel-making machinery	F. L. Gordon	454,954	June 30	2762	704	55	1701
Barrel. Oblique tumbling	J. Henderson, Jr	462,841	Nov. 10	991	256 257	57	752
Barrel-rack	J. B. Duncan	453,079	May 26	2651	668	55	1102
Barrel rack or truck	J. H. Barley	454,448	June 23	1907	498	55	1536
Barrel-rolling implement	S. B. Hilton and W. H. Monahan	454,042	June 16	1297	338	55	1411
Barrel-stand	C. Allen	464,487	Dec. 8	741	181	57	1285
Barrel-stand	L. F. Christy and E. Aldenderfer	453,856	June 9	1042	272	55	1354
Barrel-stand	S. Lewis	462,410	Nov. 3	312	77	57	610
Barrel-stand	J. J. Van Kersen	458,925	Sept. 1	591	145	56	1180
Barrel stand and truck	J. E. Junkins	460,250	Sept. 29	2675	667	56	1611
Barrel stand and truck. Tilting	R. K. Curtis	446,404	Feb. 10	1488	366	54	807
Barrel-stave. Standard	J. Pleukharp	459,646	Sept. 15	1758	442	56	1420
Barrel-snpport. Swinging	J. H. Gamble	444,978	Jan. 20	1618	414	54	332
Barrel-swing	J. H. Gamble	465,058	Dec. 15	1660	423	57	1470
Barrel-tapping device	W. Lindenmann	454,749	June 23	2385	612	55	1625
Barrel-trundler	I. Lutes	453,086	May 26	2658	670	55	1104
Barrel-washer	G. A. Bidwell	445,534	Feb. 3	7	2	54	512
Barrel-washer	G. Schock	466,084	Dec. 29	3339	853	57	1811
Barrel-washing machine	M. Gottfried	450,149	Apr. 14	740	186 187 188	55	150
Barrels. Hoop-guide for	J. Winterbotham	460,346	Sept. 29	2837	706	56	1642

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Barrels. Notching and cutting hoops for	M. E. Beasley	448,905	Mar. 24	2664	668	54	1650
Barrels upstairs. Device for carrying	S. G. Francis	456,559	July 28	2006	530	56	407
Barriers controlling openings. Machine for opening and closing	A. L. Webster	464,597	Dec. 8	902	222	57	1317
Barrow and truck. Combined hand-	C. E. Martin and J. J. Bohn	454,174	June 16	1490	391	55	1448
Base-ball indicator	J. L. Carter	463,491	Nov. 17	2015	538	57	958
Base-ball. Indoor	W. Windoes	465,507	Dec. 22	2403	614	57	1620
Base-ball mask	L. J. F. Rooney	455,007	June 30	2870	729	55	1723
Basin	J. J. Wade	459,058	Sept. 8	804	194	56	1229
Basin and overflow-pipe therefor	H. F. Stowell	461,934	Oct. 27	2376	564	57	459
Basin clamp. Stationary	J. J. O'Donnell	464,888	Dec. 8	1352	339	57	1402
Basin-coupling	J. W. Hale	451,324	Apr. 28	2628	649	55	534
Basin-fixture	H. Pietsch	450,034	Apr. 7	573	{ 142 } 143	55	111
Basin. Hand-	J. J. Wade	456,176	July 21	1375	365	56	281
Basin or like structure. Wash-	T. Kennedy	464,327	Dec. 1	508	121	57	1231
Basins. Apparatus for supplying water to wash	J. J. Royle	455,117	June 30	3061	778	55	1760
Basins. Apparatus for supplying water to wash	J. J. Royle	460,888	Oct. 6	549	138	57	108
Basins, &c. Holder for	H. B. Rockhill	451,715	May 5	412	100	55	657
Basins or baths. Supply-connection for	E. Hammann	449,880	Apr. 7	353	89.90	55	70
Basket	M. S. Cadwell	462,531	Nov. 3	489	120	57	644
Basket	A. B. Fisher	451,321	Apr. 28	2622	646	55	532
Basket	C. E. Gates	463,964	Nov. 24	2776	720	57	1111
Basket	O. Jennings	445,783	Feb. 3	443	110	54	598
Basket	W. M. and E. J. Schoolfield	453,213	June 2	50	14	55	1158
Basket	W. H. Snow	450,112	Apr. 7	686	174	55	134
Basket	W. H. Snow	450,113	Apr. 7	687	174	55	134
Basket-carrier	A. Cleveland	445,283	Jan. 27	2092	540	54	432
Basket-cover	G. C. Garbrance	464,686	Dec. 8	1050	262	57	1344
Basket-hamper	A. P. Bollinger	446,578	Feb. 17	1756	432	54	873
Basket-hamper	L. A. Brown	446,579	Feb. 17	1757	{ 432 } 433	54	873
Basket-hamper	D. J. Johnson	447,830	Mar. 10	913	228	54	1298
Basket. Fish	C. R. White	454,241	June 16	1584	417	55	1467
Basket. Fruit	F. J. Hawley	464,565	Dec. 8	858	211	57	1308
Basket-mold	W. H. Snow	450,111	Apr. 7	684	173	55	134
Basket-mold	W. H. Snow	450,114	Apr. 7	688	174	55	135
Basket or tray holder	W. H. Cadwell	453,231	June 2	77	20	55	1163
Basket stand or holder	G. H. Anderson	451,795	May 5	537	132	55	680
Basket-wiring machine	J. Knopp	460,827	Oct. 6	455	115	57	91
Baskets. Apparatus for making	B. F. Bobbitt	463,714	Nov. 24	2398	{ 628 } 629	57	1039
Bath:							
See Electro-therapeutic Vapor-bath.							
Bath-tub	G. Booth	458,995	Sept. 8	698	171	56	1209
Bath-tub	K. Glass	445,314	Jan. 27	2136	552	54	442
Bath-tub attachment	M. H. Welles	466,206	Dec. 29	3527	902	57	1847
Bath-tub. Separable	M. Doellé	446,164	Feb. 10	1085	267	54	727
Bath-tubs. Ornamental casing for	O. F. Grant	462,124	Oct. 27	2561	636	57	512
Baths. Hygienic seat for	M. Alter	454,510	June 23	2006	520	55	1554
Bather's appliance	F. W. Ostrom	450,318	Apr. 14	1014	251	55	201
Bathing apparatus and valve therefor	W. Bunting, Jr.	459,506	Sept. 15	1514	379	56	1375
Bathing apparatus. Vapor	N. Crank	463,490	Nov. 17	2014	{ 527 } 528	57	958
Bathing appliance. Invalid's	M. De Barr	445,327	Jan. 27	2152	558	54	446
Bathing-suit. Bnoyant	R. Wightman, Jr.	454,193	June 16	1518	{ 398 } 399	55	1453
Bating	C. S. Hull and P. S. Burns	452,271	May 12	1333	.....	55	834
Bating	W. Oetlinger	450,954	Apr. 21	2027	.....	55	409
Bating-powder	H. Poydenot	455,851	July 14	899	.....	56	181
Batteries and preparing the same. Compound for electric	D. M. Lamb	461,026	Oct. 13	750	.....	57	153
Batteries. Composition for electric	D. M. Lamb	461,024	Oct. 13	748	.....	57	152
Batteries. Making plates for secondary	S. C. C. Currie	459,491	Sept. 15	1492	374	56	1371
Batteries. Obtaining fluids for primary	J. B. Gardiner	460,277	Sept. 29	2730	.....	56	1621
Batteries. Packet or pad for electric	L. H. Rogers	465,206	Dec. 15	1906	483	57	1516
Batteries. Porous cell for galvanic	W. Burnley	450,354	Apr. 14	1071	263	55	212
Batteries. Separator for the plates of secondary	C. F. Waldron	463,879	Nov. 24	2650	691	57	1086
Batteries. Terminal for electric	H. V. Hayes and A. S. Hibbard	455,986	July 14	1100	290	56	218
Battery:							
See Body-battery. Ordnance battery.							
Carbon battery. Primary battery.							
Electric battery. Pyro-chemical battery.							
Galvanic battery. Secondary battery.							
Open-circuit battery. Submarine battery.							
Battery compound	W. Wright	446,544	Feb. 17	1709	.....	54	864
Battery element. Secondary	J. H. Walter	453,950	June 9	1119	305	55	1379
Battery elements. Machine for molding separator-plugs for	A. F. Madden	446,873	Feb. 24	2225	{ 553 } 554	54	975
Battery plate. Secondary-	A. F. Madden	457,880	Aug. 18	1567	406	56	844
Battery plate. Secondary-	J. R. MacLaughlan	455,968	July 14	1076	281	56	213
Battery plate. Secondary-	H. G. Morris and P. G. Salom	466,138	Dec. 29	3434	.....	57	1830
Battery plates. Making secondary	S. C. C. Currie	450,834	Apr. 21	1847	450	55	374
Battery zincs. Clamp for electric	J. H. Leakin	448,847	Mar. 24	2575	646	54	1634
Beading and burnishing tool	J. H. Busell	451,207	Apr. 28	2440	603	55	497
Beam-coping die	J. M. Long	464,130	Dec. 1	180	44	57	1171
Beam end and protector	E. Grinnell	456,950	Aug. 4	49	11	56	542
Beam-end protector	W. Kennish	462,357	Nov. 3	925	56	57	594
Beam. Pressed-steel	S. Fox	446,859	Feb. 24	2303	548	54	971
Beams and girders. Lengthening metallic	P. H. Jackson	444,579	Jan. 13	946	245	54	196
Beams. Lengthening metallic	P. H. Jackson	444,578	Jan. 13	945	245	54	196
Beaming-machines. Pressure attachment for plain	T. S. Brown	463,415	Nov. 17	1914	500	57	938
Beam-cutting machine	J. Steudle	454,388	June 16	1810	472	55	1508

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Beans. Machine for trimming and cutting up.....	J. Kohler and G. Wittmann	464,880	Dec. 8	1339	{ 336 337 }	57	1400
Bearing.....	F. B. Torrey.....	460,409	Sept. 29	2923	730	56	1657
Bearing.....	G. H. Ziegler.....	447,598	Mar. 3	533	131	54	1217
Bearing and supporting device.....	F. X. Hooper and W. Hollingsworth.	462,436	Nov. 3	352	86	57	617
Bearing. Anti-friction.....	P. Arnold.....	444,311	Jan. 6	518	135	54	104
Bearing. Anti-friction.....	L. W. Hardy.....	452,373	May 19	1506	373	55	876
Bearing. Anti-friction.....	L. K. Jewett.....	449,078	Mar. 24	2918	{ 740 741 }	54	1700
Bearing. Anti-friction.....	C. J. A. Sjöberg.....	462,744	Nov. 10	825	215	57	719
Bearing. Anti-friction.....	H. T. Shriver.....	459,877	Sept. 22	2117	531	56	1498
Bearing. Anti-friction.....	E. Stempel.....	444,224	Jan. 6	398	99	54	79
Bearing. Anti-friction roller.....	M. N. Lovell.....	449,046	Mar. 24	2873	730	54	1692
Bearing. Anti-friction roller.....	M. N. Lovell.....	449,047	Mar. 24	2874	730	54	1692
Bearing. Anti-friction roller.....	W. C. Vanneman.....	458,006	Aug. 18	1779	465	56	884
Bearing. Ball.....	H. Howard.....	454,049	June 16	1306	340	55	1413
Bearing. Ball.....	H. Howard.....	456,955	Aug. 4	55	13	56	543
Bearing. Ball.....	H. Howard.....	463,833	Nov. 24	2563	668	57	1072
Bearing. Ball.....	H. Howard.....	463,834	Nov. 24	2564	668	57	1072
Bearing. Ball.....	G. F. Simonds.....	449,952	Apr. 7	455	{ 114 115 }	55	89
Bearing. Ball.....	G. F. Simonds.....	449,953	Apr. 7	457	115	55	89
Bearing. Ball.....	G. F. Simonds.....	449,954	Apr. 7	460	115	55	90
Bearing. Ball.....	G. F. Simonds.....	449,955	Apr. 7	461	115	55	90
Bearing. Ball.....	G. F. Simonds.....	449,956	Apr. 7	462	116	55	90
Bearing. Ball.....	G. F. Simonds.....	449,957	Apr. 7	464	116	55	91
Bearing. Ball.....	G. F. Simonds.....	449,958	Apr. 7	466	116	55	91
Bearing. Ball.....	G. F. Simonds.....	449,959	Apr. 7	467	{ 116 117 }	55	91
Bearing. Ball.....	G. F. Simonds.....	449,960	Apr. 7	469	117	55	92
Bearing. Ball.....	G. F. Simonds.....	449,961	Apr. 7	470	117	55	92
Bearing. Ball.....	G. F. Simonds.....	449,962	Apr. 7	472	118	55	92
Bearing. Ball.....	G. F. Simonds.....	449,963	Apr. 7	473	118	55	92
Bearing. Ball.....	G. F. Simonds.....	449,964	Apr. 7	474	118	55	93
Bearing. Ball.....	G. F. Simonds.....	449,965	Apr. 7	475	118	55	93
Bearing. Ball.....	G. F. Simonds.....	449,966	Apr. 7	477	119	55	93
Bearing. Ball.....	G. F. Simonds.....	449,967	Apr. 7	477	119	55	93
Bearing. Ball.....	G. F. Simonds.....	449,968	Apr. 7	478	119	55	93
Bearing. Ball.....	A. L. Teetor.....	456,664	July 28	2180	578	56	442
Bearing box.....	E. D. Mackintosh.....	465,673	Dec. 22	2672	681	57	1672
Bearing box.....	G. St. Pierre.....	448,462	Mar. 17	1956	492	54	1509
Bearing-box adjuster. Automatic.....	H. L. Hopkins.....	463,627	Nov. 24	2257	595	57	1013
Bearing. Colter and wheel.....	H. R. Howe.....	463,599	Nov. 24	2677	697	57	1091
Bearing for rollers. Rotary.....	A. M. Rowland.....	464,201	Dec. 1	305	74	57	1191
Bearing for vehicle-wheels. Anti-friction.....	J. F. Morell.....	445,377	Jan. 27	2221	576	54	460
Bearing. Roller.....	C. D. Menecely.....	445,680	Feb. 3	277	73, 74	54	567
Bearing. Roller.....	C. D. Menecely.....	462,719	Nov. 10	789	206	57	711
Bearing. Roller.....	C. D. Menecely and J. Gibbons.....	445,679	Feb. 3	275	72, 73	54	567
Bearing. Roller.....	F. Van Benthuysen.....	459,774	Sept. 22	1950	492	56	1465
Bearings. Lubricant lining for friction.....	W. Friend.....	445,989	Feb. 10	787	191	54	675
Beating machine. Quarter.....	C. W. Glidden.....	454,429	June 16	1881	491	55	1522
Beating-out machine.....	G. H. Cogswell.....	446,990	Feb. 24	2423	{ 602 603 }	54	1010
Bed.....	F. H. B. Babbe.....	448,000	Mar. 10	1203	305	54	1353
Bed.....	M. A. Deimel.....	450,737	Apr. 21	1663	407	55	344
Bed.....	T. J. Parkinson.....	447,257	Feb. 24	2895	719	54	1100
Bed and chair. Combination invalid.....	A. J. Goodwin.....	453,236	June 2	86	23	55	1165
Bed and dresser. Combined folding.....	M. and A. Lain.....	451,492	May 5	72	18	55	593
Bed and dressing-case. Combined folding.....	G. W. Sanor.....	456,965	Aug. 4	67	16	56	545
Bed and dressing-case. Folding.....	J. Speed.....	454,833	June 23	2529	650	55	1649
Bed and trunk. Combined.....	G. W. Snaman, Jr.....	466,194	Dec. 29	3512	899	57	1844
Bed-bottom.....	R. C. Bird and D. A. Page.....	451,908	May 12	735	182	55	722
Bed-bottom.....	E. M. Bonnell and J. S. Lambing.....	457,041	Aug. 4	162	40	56	564
Bed-bottom and brace.....	W. H. Lightfoot.....	465,182	Dec. 15	1876	475	57	1310
Bed-bottom. Folding spring.....	J. C. Holds.....	466,305	Dec. 29	3687	942	57	1877
Bed-bottom of springs.....	O. R. Hunt.....	464,604	Dec. 8	913	224	57	1319
Bed-bottom of springs.....	H. Warner.....	453,850	June 9	1034	270	55	1352
Bed-bottom. Spring.....	D. Edgar.....	458,655	Sept. 1	171	40	56	1098
Bed-bottom. Spring.....	L. B. Houston.....	444,610	Jan. 13	985	256	54	203
Bed-bottom. Spring.....	W. T. Howe.....	450,968	Apr. 21	2059	507	55	415
Bed-bottom. Spring.....	G. Keenbolts.....	447,133	Feb. 24	2658	659	54	1055
Bed-bottom. Spring.....	J. L. Kraber.....	465,024	Dec. 15	1608	409	57	1462
Bed-bottom. Spring.....	C. F. Phillips.....	458,374	Aug. 25	2374	579	56	1004
Bed-bottom. Spring.....	A. F. Purefoy.....	458,067	Aug. 18	1863	485	56	901
Bed-bottom. Woven-wire.....	W. B. Noyes.....	463,730	Nov. 24	2420	634	57	1043
Bed-brace.....	A. G. Busbea.....	464,644	Dec. 8	976	243	57	1332
Bed-brace.....	J. M. Critcher and E. B. Webber.....	460,563	Oct. 6	32	8	57	8
Bed-brace.....	R. J. Morton.....	460,092	Sept. 22	2439	610	56	1557
Bed-brace.....	S. E. Williams.....	457,688	Aug. 11	1235	317	56	772
Bed. Bracket.....	T. E. Smith.....	447,167	Feb. 24	2745	679	54	1069
Bed. Cabinet folding.....	A. A. Zimmerman.....	458,089	Aug. 18	1897	{ 493 494 }	56	909
Bed. Chair.....	G. Goldschmidt.....	464,153	Dec. 1	219	52	57	1177
Bed. Combined invalid and operating.....	W. T. Walker.....	451,348	Apr. 28	2655	658	55	539
Bed-conch.....	G. Goldschmidt.....	455,921	July 14	1002	{ 260 261 }	56	201
Bed-conch. Folding.....	P. Herbold.....	457,349	Aug. 11	716	{ 182 183 }	56	672
Bed. Folding.....	J. B. Anderson.....	449,692	Apr. 7	365	93, 94	55	73
Bed. Folding.....	F. Ansley.....	456,932	Aug. 4	5	2	56	534
Bed. Folding.....	F. Bennett. (Reissne).....	11,137	Jan. 6	678	176	54	133
Bed. Folding.....	C. Boller.....	452,503	May 19	1792	433	55	914
Bed. Folding.....	J. D. Ennes.....	465,616	Dec. 22	2585	657	57	1655
Bed. Folding.....	B. F. Fortiner.....	455,193	June 30	3190	809	55	1785

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Bed. Folding.....	C. L. Gill.....	460,574	Oct. 6	50	12	57	11
Bed. Folding.....	H. S. Hale.....	454,121	June 16	1403	368	55	1432
Bed. Folding.....	H. S. Hale.....	454,122	June 16	1410	368	55	1432
Bed. Folding.....	S. C. Hopkins and A. Peterson.....	463,124	Nov. 10	1443	373	57	840
Bed. Folding.....	M. Kelly.....	461,481	Oct. 20	1534	376	57	309
Bed. Folding.....	A. Matsuka.....	451,564	May 5	179	43	55	614
Bed. Folding.....	W. J. Mayer.....	462,846	Nov. 10	999	258	57	753
Bed. Folding.....	I. Osgood.....	445,629	Feb. 3	173	45, 46	54	545
Bed. Folding.....	J. G. Peace.....	464,387	Dec. 1	590	{ 145 146 }	57	1246
Bed. Folding.....	F. N. Potter.....	451,842	May 5	599	{ 148 149 }	55	693
Bed. Folding.....	D. C. Rice and H. A. Gore.....	460,217	Sept. 29	2631	657	56	1602
Bed. Folding.....	B. Ringo.....	459,819	Sept. 22	2025	{ 507 508 }	56	1479
Bed. Folding.....	M. Samuels.....	464,803	Dec. 8	1235	307	57	1379
Bed. Folding.....	J. G. Sextro.....	457,796	Aug. 18	1423	369	56	818
Bed. Folding.....	J. A. Simpson.....	452,483	May 19	1695	426	55	909
Bed. Folding.....	L. C. Smith and E. E. Herrinton.....	452,736	May 19	2087	525	55	986
Bed. Folding.....	F. E. Stevens.....	456,915	July 28	2613	685	56	520
Bed. Folding.....	C. Tenfel.....	459,210	Sept. 8	1048	{ 254 255 }	56	1275
Bed. Hanging.....	W. M. Buell.....	463,657	Nov. 24	2303	605	57	1021
Bed. Invalid.....	A. J. Goodwin.....	453,237	June 2	91	24	55	1165
Bed. Invalid.....	C. S. Johnson and M. E. Moore.....	452,304	May 12	1379	343	55	842
Bed. Invalid.....	T. E. Kaiser and J. Wilkinson.....	464,158	Dec. 1	227	54	57	1179
Bed. Invalid.....	G. A. Leonhard.....	460,800	Oct. 6	417	103	57	82
Bed-lounge.....	I. B. Beattie.....	457,931	Aug. 18	1658	{ 433 434 }	56	861
Bed or lounge. Sofa.....	J. Rimmer.....	464,656	Dec. 8	998	249	57	1336
Bed-pan.....	M. J. Cunningham.....	445,011	Jan. 20	1668	428	54	342
Bed-pan.....	W. H. Kynett and C. W. Van Dusen.....	454,826	June 23	2515	647	55	1648
Bed-pan.....	J. K. Smith.....	460,288	Sept. 29	2746	654	56	1624
Bed-pan.....	M. St. John.....	448,691	Mar. 24	2327	584	54	1557
Bed-pan.....	J. H. Worsell.....	466,068	Dec. 29	3319	848	57	1807
Bed-slat fastener.....	C. N. Rothrock.....	459,768	Sept. 22	1943	490	56	1463
Bed-slat support.....	M. E. McMaster.....	461,687	Oct. 20	1862	461	57	370
Bed. Sofa.....	W. Flam.....	457,580	Aug. 11	1077	276	56	743
Bed. Sofa.....	V. A. Hallqvist and G. E. Wennberg.....	453,474	June 2	469	121	55	1237
Bed. Sofa.....	A. G. Phillips.....	446,603	Feb. 17	1788	443	54	880
Bed. Sofa.....	M. Rosenzweig.....	451,172	Apr. 28	2367	588	55	485
Bed. Sofa.....	M. W. Ward.....	453,224	June 2	65	17	55	1161
Bed-spring.....	G. W. Almstead and W. L. Ford.....	460,276	Sept. 29	2729	680	56	1621
Bed-spring.....	J. Rose.....	465,539	Dec. 22	2463	628	57	1632
Bed-spring.....	W. H. Turner.....	452,815	May 26	2215	556	55	1020
Bed. Spring.....	J. H. Brothers.....	454,027	June 16	1278	333	55	1408
Bed. Spring.....	W. E. Frank.....	453,556	June 2	590	150	55	1259
Bed support. Folding.....	H. Waddell.....	447,589	Mar. 3	522	127	54	1215
Bed. Wardrobe or folding.....	F. B. Williams.....	463,655	Nov. 24	2301	604	57	1021
Bed-warming apparatus.....	C. B. Paul.....	464,585	Dec. 8	884	218	57	1313
Bed. Woven-wire.....	H. Roberts.....	451,522	May 5	115	29	55	601
Beds. Portable bottom for sofa.....	W. Petersen.....	458,858	Sept. 1	479	115	56	1157
Bedclothes and baby holder. Combined.....	C. Kanzler.....	454,479	June 23	1952	509	55	1545
Bedclothes-fastener.....	C. E. Angell.....	454,695	June 23	2306	591	55	1609
Bedstead.....	C. Reber.....	450,748	Apr. 21	1700	411	55	348
Bedstead.....	M. C. Taylor.....	462,458	Nov. 3	380	94	57	622
Bedstead-brace.....	J. F. Blair.....	458,265	Aug. 25	2192	535	56	970
Bedstead-brace.....	T. Loneragan.....	458,287	Aug. 25	2229	545	56	976
Bedstead-brace.....	F. E. Welch.....	462,853	Nov. 10	1011	261	57	756
Bedstead. Cabinet.....	W. R. Forbis.....	462,695	Nov. 10	756	197	57	705
Bedstead. Child's.....	F. C. Hannahs.....	452,842	May 26	2252	565	55	1026
Bedstead-fastening.....	H. R. Robbins.....	460,034	Sept. 22	2339	586	56	1539
Bedstead fastening attachment.....	W. B. Farrar.....	457,711	Aug. 11	1271	329	56	780
Bedstead. Folding.....	W. D. Snyder.....	463,221	Nov. 17	1592	415	57	876
Bedstead. Folding.....	D. M. Stevenson.....	464,047	Dec. 1	58	16	57	1148
Bedstead. Folding.....	E. S. Tichenor.....	461,138	Oct. 13	898	233	57	180
Bedstead. Folding parlor.....	J. D. Ennes.....	444,064	Jan. 6	135	33	54	29
Bedstead. Invalid.....	W. Coughlin.....	463,944	Nov. 24	2751	714	57	1105
Bedstead, &c. Iron.....	C. A. Sprague.....	455,976	July 14	1085	284	56	215
Bedstead-tablet.....	C. H. Murray.....	452,348	May 12	1466	363	55	858
Bedstead. Wardrobe.....	N. G. Angier.....	450,600	Apr. 14	1438	353	55	282
Bedstead. Wardrobe.....	A. M. Eckstrom.....	460,468	Sept. 29	3010	754	56	1674
Bedsteads. Bed-drawer attachment for.....	L. Mabee.....	460,022	Sept. 22	2325	{ 582 583 }	56	1536
Bedsteads. Insect-guard for.....	A. M. Miller.....	459,089	Sept. 8	847	205	56	1236
Bedsteads. Leg attachment for folding.....	F. B. Williams.....	463,411	Nov. 17	1908	498	57	936
Bee-hive.....	P. H. Ackley.....	463,674	Nov. 24	2326	610	57	1025
Bee-hive.....	R. H. Ewing.....	462,761	Nov. 10	857	225	57	725
Bee-hive.....	G. C. Ferguson.....	452,366	May 19	1497	371	55	874
Bee-hive.....	W. D. Pennoek.....	449,760	Apr. 7	180	45	55	37
Bee-hive.....	J. R. Wilhelm.....	457,550	Aug. 11	1029	{ 264 265 }	56	733
Bee-hives. Comb-frame for.....	I. M. Grubb.....	445,429	Jan. 27	2304	598	54	476
Bee-hives. Super for.....	W. A. Hawthorne.....	464,360	Dec. 1	559	137	57	1240
Bee-house.....	W. G. Rutherford.....	460,219	Sept. 29	2634	657	56	1603
Beer and ale. Manufacturing.....	A. W. Billings.....	466,151	Dec. 29	3450	.....	57	1833
Beer. Apparatus for distributing.....	J. Hartin.....	464,021	Dec. 1	26	7	57	1141
Beer-barrels. Pressure apparatus for.....	F. Ackermann.....	452,010	May 12	877	224	55	752
Beer-buck.....	F. T. Cladek.....	455,937	July 14	1027	269	56	205
Beer by means of carbonic acid. Apparatus for tap-plug.....	P. Beck.....	445,257	Jan. 27	2063	532	54	426
Beer-cooler.....	B. B. Kinn.....	445,115	Jan. 20	1827	473	54	372
Beer-cooling apparatus.....	D. L. Holden.....	444,533	Jan. 13	872	226	54	182
Beer-cooling apparatus.....	R. F. Roswald.....	466,047	Dec. 29	3292	840	57	1802

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Beer. Device for drawing steam.	C. Harth	449,853	Apr. 7	319	82	55	63
Beer. Device for fermenting	J. F. Theurer	452,149	May 12	1138	288	55	796
Beer. Finishing	O. Zwietusch	447,484	Mar. 3	361	90	54	1186
Beer-vats. Wort and yeast aerator for	O. Ritter	466,310	Dec. 29	3695	943	57	1878
Bell	N. N. Hill	445,370	Jan. 27	2214	574	54	458
Bell	C. J. Kiutner	455,626	July 7	531	139	56	102
Bell	W. A. Luttgen	450,169	Apr. 14	767	195	55	156
Bell	T. R. Pixton	451,770	May 5	504	124	55	674
Bell	E. D. Rockwell	456,062	July 14	1209	318	56	238
Bell	A. F. Stanley	449,832	Apr. 7	294	77	55	58
Bell	W. L. Upson	450,819	Apr. 21	1826	443	55	370
Bell	W. L. Upson	454,190	June 16	1514	397	55	1452
Bell and indicator. Electric call.	W. Cox	450,558	Apr. 14	1369	338	55	270
Bell. Alarm.	C. E. Carroll	459,778	Sept. 22	1956	944	56	1466
Bell. Call	D. Brown	466,116	Dec. 29	3383	864	57	1820
Bell. Door.	J. Allen and S. Goulden	450,347	Apr. 14	1064	261	55	210
Bell. Door.	G. A. Colton	460,114	Sept. 29	2474	618	56	1572
Bell. Door.	F. M. Winters	465,909	Dec. 29	3044	780	57	1754
Bell. Electric	W. Hay	460,503	Sept. 29	3074	771	56	1685
Bell. Electric	J. F. Wollensak	445,295	Jan. 27	2105	545	54	435
Bell. Electric alarm.	C. A. Hale	462,381	Nov. 3	263	64	57	601
Bell. Electric call.	D. H. Rice	446,712	Feb. 17	1961	488	54	913
Bell for grain-elevators, &c. Alarm.	G. W. Nye	446,881	Feb. 24	2241	557	54	977
Bell. Magneto.	W. R. Patterson	444,600	Jan. 13	971	252	54	201
Bell-operating device. Door.	A. Iske	448,043	Mar. 10	1270	324	54	1365
Bell or gong	G. Bevin	453,709	June 9	844	218	55	1315
Bell. Pneumatic	G. F. Kincaid	445,837	Feb. 3	540	131	54	617
Bell. Polarized	A. Storer	451,414	Apr. 28	2755	681	55	558
Bell-pull. Electric	L. B. Tinkham	450,706	Apr. 21	1648	396	55	337
Bell-pull. Electrical door.	L. W. Cleveland	447,748	Mar. 3	757	189	54	1261
Bell-ringer. Automatic	W. W. Slater	449,866	Apr. 7	339	86	55	67
Bell-ringer. Mechanical.	G. J. Gollmar	449,904	Apr. 7	392	99	55	77
Bell ringer or alarm. Automatic door.	C. A. Emme	458,308	Aug. 25	2362	552	56	982
Bell-ringing attachment.	W. W. Slater and H. C. Barnes	461,718	Oct. 20	1910	472	57	379
Bell-sounding mechanism. Automatic	E. W. Vanduzen	461,458	Oct. 20	1440	362	57	293
Bell spring and clapper holder	G. G. Campbell	460,555	Oct. 6	17	5	57	5
Bell-stand. Cathedral.	A. C. Sanford	453,067	May 26	2629	664	55	1098
Bell-striker	M. G. Crane	452,166	May 12	1175	297	55	803
Bells and burglar-alarms. Trip for door.	A. Iske	448,045	Mar. 10	1272	324	54	1366
Bells. Device for use in brazing and coating stock.	C. G. Blum	444,288	Jan. 6	488	127	54	97
Bells. Loop for cow.	O. B. Wilson	463,565	Nov. 17	2139	565	57	982
Bellows	S. T. Culp	444,744	Jan. 13	1201	311	54	243
Bellows-fold coupling	E. L. Perry	449,587	Mar. 31	3766	945	54	1865
Belt	H. Leck	446,186	Feb. 10	1118	273	54	733
Belt. Apron.	J. Lang and D. W. Evans	461,128	Oct. 13	885	230	57	178
Belt. Bodice.	G. E. Zeltmacher	462,058	Oct. 27	2493	619	57	500
Belt-clamp.	G. P. Kenehan	457,123	Aug. 4	290	76	56	589
Belt-coupler	N. H. Roberts	457,012	Aug. 4	124	30	56	557
Belt-coupling	W. P. White	450,901	Apr. 21	1948	478	55	393
Belt-drive.	N. V. Holt	455,283	June 30	3348	845	55	1815
Belt. Electric.	D. P. Andrus	449,345	Mar. 31	3371	850	54	1790
Belt. Electric	C. A. Bogardus	455,680	July 7	613	161	56	119
Belt. Electric	C. H. Dorenwend	459,681	Sept. 15	1805	454	56	1430
Belt. Electric	A. Erikson	465,093	Dec. 15	1723	438	57	1482
Belt. Electric	W. C. Fuller	448,953	Mar. 24	2732	689	54	1664
Belt. Electric	L. N. Fancher	456,021	July 14	1159	394	56	228
Belt. Electric	P. B. Petterson	462,732	Nov. 10	809	211	57	716
Belt. Electric	C. D. Williams	452,250	May 12	1305	327	55	830
Belt. Electro-therapeutic	H. W. Matthews	459,144	Sept. 8	940	226	56	1256
Belt-fastener	G. H. Avery	459,344	Sept. 8	1254	308	56	1317
Belt-fastener	S. Ging	451,041	Apr. 28	2171	536	55	445
Belt-fastener	W. K. Hance and R. F. Redick	463,664	Nov. 24	2312	607	57	1023
Belt-fastener	I. Jackson	465,995	Dec. 29	3205	817	57	1784
Belt-fastener	G. P. Kenehan	462,259	Nov. 3	57	14	57	563
Belt-fastener	H. Kerr	456,992	Aug. 4	100	25	56	552
Belt-fastener	J. A. Kerr	456,993	Aug. 4	102	25	56	553
Belt-fastener	R. McComb	453,019	May 26	2545	644	55	1083
Belt-fastener	L. T. Potter	461,531	Oct. 20	1617	395	57	324
Belt-fastener	W. H. Ratcliff	455,056	June 30	2954	752	55	1739
Belt-fastener	A. Smith	453,515	June 2	530	136	55	1248
Belt-fasteners. Die for making	G. P. Kenehan	448,835	Mar. 24	2551	640	54	1629
Belt-fasteners. Making	G. P. Kenehan	448,836	Mar. 24	2552	640	54	1629
Belt-fasteners. Process of and die for making.	G. P. Kenehan	462,260	Nov. 3	58	14	57	563
Belt frame. Conveyer	R. Oliver	452,191	May 12	1209	306	55	810
Belt-gearing	M. Masters	446,407	Feb. 10	1492	367	54	808
Belt-gearing	T. H. McCray	449,166	Mar. 31	3059	774	54	1735
Belt-gearing	T. H. McCray	465,141	Dec. 15	1812	459	57	1498
Belt guide and support.	O. Sawyer	445,382	Jan. 27	2228	577	54	461
Belt guide and tightener	P. W. Minor	463,686	Nov. 24	2349	615	57	1030
Belt-rolling machine	J. L. Crisp	452,748	May 19	2110	531	55	990
Belt-shifter	O. B. Martin	449,548	Mar. 31	3705	931	54	1855
Belt. Skirt.	A. A. Alpers	458,148	Aug. 25	1969	515	56	933
Belt-stretcher	C. Darst	458,099	Aug. 18	1911	497	56	911
Belt. Tennis.	E. W. Whittaker	450,050	Apr. 7	592	147	55	114
Belt-tension device.	J. C. Bryce	447,444	Mar. 3	284	72	54	1171
Belt-tightener	T. S. Brown	463,414	Nov. 17	1913	500	57	937
Belt-tightener	C. A. Norlin	455,799	July 14	823	214	56	167
Belt-tightening mechanism	P. Medart	448,583	Mar. 17	2133	535	54	1542
Belt. Waist.	H. A. Hayden	447,877	Mar. 10	994	251	54	1313

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Belts. Lace-hole cutter for	T. O. Earle	457,708	Aug. 11	1266	327	56	779
Belts. Slat-fastener for	M. Arnold	461,177	Oct. 13	968	249	57	192
Belting	G. P. Dodge	450,999	Apr. 21	2106	519	55	424
Belting	C. A. Schieren	455,852	July 14	900	236	56	181
Belting-joint	D. B. Kelly	460,799	Oct. 6	416	102	57	82
Belting. Magnetic	T. A. Edison	457,343	Aug. 11	705	181	56	669
Belting. Woven fabric for machine-	J. P. Maddox	459,082	Sept. 8	837	203	56	1234
Bench:							
See Kneeling-bench. Shoo-maker's bench.							
Bench-dog	L. D'Auria	460,047	Sept. 22	2369	592	56	1544
Bench-dog	J. B. Pursell	458,187	Aug. 25	2045	530	56	943
Bench-hook	M. L. Darby	459,745	Sept. 22	1909	481	56	1457
Bench-scraper	P. C. Atwood	465,825	Dec. 29	2897	743	57	1727
Bench-sprnr	W. J. Strain	447,798	Mar. 10	870	216	54	1289
Bench-stop	C. Morrill	457,363	Aug. 11	741	189	56	677
Bending and straightening. Electric	E. Thomson	458,115	Aug. 18	1929	501 } 502	56	915
Bending-machine.	J. R. McNabb	457,789	Aug. 18	1407	365	56	815
Bending-machine	J. H. Peters	456,774	July 28	2373	624	56	477
Bengal-light compound.	C. Gerhard	449,530	Mar. 31	3675	54	54	1849
Benzo-rhodamine.	M. Ceresole	449,520	Mar. 31	3664	54	54	1847
Berry-box	C. Tondeur	447,799	Mar. 10	871	216	54	1289
Berth and seat for ships or railway-cars	J. G. W. Aldridge	447,020	Feb. 24	2477	616	54	1019
Berth-guard and ladder	J. Plant	451,516	May 5	107	27	55	600
Berth-safe	J. A. Brittain	456,010	July 14	1137	298	56	224
Berth. Self-leveling.	H. T. Morse	464,625	Dec. 8	946	233	57	1326
Borths. Curtain for sleeping-car	H. H. Sessious	456,292	July 21	1573	415 } 416	56	318
Betadelta-amidonaphthol	J. Schmid	455,442	July 7	228	56	56	46
Bevel	A. M. Brown	445,520	Jan. 27	2434	634	54	499
Bevel	C. W. B. Fuller	450,823	Apr. 21	1831	444	55	371
Bevel	P. J. Mabye	456,044	July 14	1187	312	56	234
Beveling-machine	M. O'Gorman	449,131	Mar. 31	3013	761 } 762	54	1727
Beverage.	H. Hübener	455,103	June 30	3034	55	55	1755
Bi-telephone	E. J. P. Mercadier	454,138	June 16	1436	375	55	1437
Bib	L. F. Kropp	453,490	June 2	495	127	55	1241
Bicycle	J. Anthony and A. Everitt	461,699	Oct. 20	1889	467	57	375
Bicycle	F. R. Bigelow	453,540	June 2	568	144	55	1255
Bicycle	F. H. Bolte	447,933	Mar. 10	1089	273	54	1321
Bicycle	S. A. Brown	446,181	Feb. 10	1109	272	54	732
Bicycle	W. F. Cornelius	455,864	July 14	916	240	56	185
Bicycle	S. A. Donnelly	447,234	Feb. 24	2863	710 } 711	54	1093
Bicycle	S. A. Donnelly	448,509	Mar. 17	2026	507	54	1522
Bicycle	J. B. Evans	449,581	Mar. 31	3755	943	54	1863
Bicycle	J. B. Evans	464,769	Dec. 8	1214	302	57	1375
Bicycle	J. B. Evans	464,790	Dec. 8	1216	303	57	1376
Bicycle	G. W. Fernald	464,324	Dec. 1	504	120	57	1230
Bicycle	M. B. Gibson	464,357	Dec. 1	555	136	57	1239
Bicycle	H. C. Goodrich	456,217	July 21	1439	381	56	292
Bicycle	L. P. Halladay	451,428	Apr. 28	2779	686 } 687	55	562
Bicycle	L. P. Halladay	451,429	Apr. 28	2781	687	55	562
Bicycle	O. Hanson	459,003	Sept. 8	708	174	56	1212
Bicycle	E. E. Hardy	465,475	Dec. 22	2342	600	57	1609
Bicycle	F. J. H. Hazard	448,960	Mar. 24	2741	691	54	1666
Bicycle	W. E. Hibbert and A. Manuel	446,098	Feb. 10	957	235 } 236	54	705
Bicycle	J. H. Horah	451,972	May 12	815	207 } 208	55	740
Bicycle	N. N. Horton	465,136	Dec. 15	1805	457	57	1497
Bicycle	F. J. Huelsen and J. Nagel	452,073	May 12	1008	254	55	773
Bicycle	F. J. Huelsen and J. Nagel	455,945	July 14	1043	273	56	207
Bicycle	E. B. Hunt	450,938	Apr. 21	1994	491	55	403
Bicycle	J. H. Kane	446,354	Feb. 10	1400	343	54	790
Bicycle	W. W. Kenfield	448,750	Mar. 24	2431	608	54	1606
Bicycle	J. H. Mathews.	463,710	Nov. 24	2390	626	57	1037
Bicycle	W. R. Mercer	460,784	Oct. 6	400	97	57	79
Bicycle	V. M. Moore	447,341	Mar. 3	98	27	54	1137
Bicycle	F. H. S. Moynahan	454,583	June 23	2122	547 } 548	55	1576
Bicycle	H. B. Murdock	463,703	Nov. 24	2379	622 } 623	57	1035
Bicycle	W. R. O'Neill	444,639	Jan. 13	1026	267	54	211
Bicycle	A. G. Powell	452,649	May 19	1948	489	55	959
Bicycle	H. V. and W. H. Rhoades	452,195	May 12	1216	307 } 308	55	811
Bicycle	N. Rowen	452,196	May 12	1219	308	55	811
Bicycle	W. Scantlebury	446,175	Feb. 10	1100	270	54	730
Bicycle	J. Shier	453,514	June 2	529	136	55	1247
Bicycle	C. Sonnesen	460,453	Sept. 29	2981	745	56	1668
Bicycle	W. Stillman, Jr.	456,387	July 21	1727	457	56	346
Bicycle	R. G. Surbridge	450,705	Apr. 21	1647	395	55	337
Bicycle	A. L. Teetor	453,053	May 26	2600	657	55	1093
Bicycle	A. N. Thompson	456,604	July 28	2077	549	56	420
Bicycle	W. E. Thompson	447,382	Mar. 3	171	47	54	1150
Bicycle	P. W. Tillinghast	444,258	Jan. 6	443	111	54	87
Bicycle	P. W. Tillinghast	450,951	Apr. 21	2022	500	55	408
Bicycle	D. P. Vincent	455,673	July 7	602	158 } 159	56	117
Bicycle	C. F. Watkins	448,701	Mar. 24	2342	587	54	1590
Bicycle	S. Wilson	459,569	Sept. 15	1617	406	56	1395

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Bicycle.	A. Winton.	461,696	Oct. 20	1884	466	57	374
Bicycle.	W. O. Worth.	444,868	Jan. 20	1433	372	54	296
Bicycle and track therefor.	A. J. Bottonff.	450,926	Apr. 21	1978	485	55	400
Bicycle attachment.	W. Murray.	445,452	Jan. 27	2334	607	54	481
Bicycle attachment.	R. W. Riess.	453,713	June 9	849	219	55	1316
Bicycle-crank.	W. Blakely.	446,280	Feb. 10	1289	315	54	767
Bicycle-handle.	W. Blakely.	450,906	Apr. 21	1956	479	55	395
Bicycle-handle-bar.	W. J. Matern.	461,356	Oct. 13	1256	320	57	252
Bicycle locking attachment.	F. H. Hohoff.	458,832	Sept. 1	442	106	56	1149
Bicycle luggage-carrier.	F. J. Dustin.	466,064	Dec. 29	3316	846	57	1806
Bicycle oil-cup holder.	E. Brower and A. M. Stillman.	463,093	Nov. 10	1381	357	57	828
Bicycle parcel-carrier.	M. E. Blood.	446,748	Feb. 17	2017	504	54	924
Bicycle parcel-carrier.	M. E. Blood.	453,311	June 2	201	55	55	1186
Bicycle-pedal.	W. O. Worth.	447,395	Mar. 3	197	51	54	1155
Bicycle-riders. Coupling device for.	L. P. J. Gartenbach and W. Hampp.	453,441	June 2	419	109	55	1226
Bicycle-saddle.	F. H. Bolte.	457,335	Aug. 18	1481	386	56	829
Bicycle-saddle.	L. S. Copper.	448,774	Mar. 24	2462	615	54	1612
Bicycle-saddle.	J. A. Little.	452,797	May 26	2187	548	55	1014
Bicycle-saddle.	G. E. Seymour.	455,363	July 7	100	29	56	23
Bicycle-saddle.	R. S. True.	455,027	June 30	2898	737	55	1728
Bicycle-saddle.	J. L. Yost and C. J. Moore.	448,469	Mar. 17	1966	494	54	1511
Bicycle. Safety.	A. L. Garford.	457,080	Aug. 4	237	61	56	578
Bicycle-seat.	W. F. Cornelius.	453,039	May 26	2576	651	55	1089
Bicycle-seat.	T. J. Kirkpatrick.	465,669	Dec. 22	2667	680	57	1671
Bicycle-seat.	J. A. Lamplugh.	446,355	Feb. 10	1400	343	54	790
Bicycle-seat attachment.	L. Rastetter and C. Siebold.	460,031	Sept. 22	2336	585	56	1539
Bicycle-seat attachment.	J. H. Sager.	453,212	June 2	48	13	55	1157
Bicycle-seat attachment.	F. Voss.	450,712	Apr. 21	1654	398	55	338
Bicycle-seat spring.	J. C. Kage.	458,113	Aug. 18	1927	501	56	915
Bicycle speed mechanism.	H. L. F. Trebert.	462,782	Nov. 10	886	233	57	731
Bicycle spring-fork.	F. Miller.	460,180	Sept. 29	2576	642	56	1592
Bicycle spring-frame.	F. Miller.	460,179	Sept. 29	2575	642	56	1591
Bicycle-spoke-nipple wrench.	A. K. Schaap.	449,000	Mar. 24	2805	709	54	1678
Bicycle-stand.	E. N. Bowen.	445,710	Feb. 3	321	85	54	575
Bicycle-stand.	A. P. Merrill.	458,974	Sept. 1	662	162	56	1194
Bicycle-support.	J. M. Anck.	447,125	Feb. 24	2644	656	54	1052
Bicycle-support.	J. E. Anderson.	461,806	Oct. 27	2063	509	57	417
Bicycle-support.	E. F. Hathaway.	456,411	July 21	1761	465	56	353
Bicycle-support.	J. W. Kennedy.	446,835	Feb. 17	2153	535	54	953
Bicycle-support.	J. A. McCash.	466,020	Dec. 29	3248	827	57	1792
Bicycle-support.	F. G. Taylor.	453,094	May 26	2677	674	55	1109
Bicycle-support.	F. G. Taylor.	456,347	July 21	1651	437	56	333
Bicycle-support.	F. G. Taylor.	456,348	July 21	1652	437	56	333
Bicycle. Tandem.	T. L. Moore.	448,358	Mar. 17	1794	453	54	1478
Bicycle-wheel.	C. A. Hartmann.	456,815	July 28	2433	641	56	488
Bicycles. Combined stand and carrier for.	R. Coates.	460,332	Sept. 29	2215	701	56	1637
Bicycles. Mud-guard for.	G. Harriott.	458,906	Sept. 1	386	93	56	1139
Bicycles. Oil-can holder for.	L. H. Bannister.	449,460	Mar. 31	3580	901	54	1830
Bicycles. Spring-fork for.	W. E. Thompson.	461,001	Oct. 13	713	184	57	146
Bicycles. Supplemental seat for.	F. D. Jones.	460,072	Sept. 22	2407	602	56	1551
Bicycles. Watch-holder for.	H. A. Cain.	465,159	Dec. 15	1837	466	57	1502
Bier.	W. Sanders and J. B. Rafferty.	450,894	Apr. 21	1939	475	55	391
Bill-strap.	F. E. Blaisdell.	451,657	May 5	327	79	55	641
Billet-conveyer.	C. Pettigrew.	445,286	Jan. 27	2096	541	54	433
Billet-conveyer.	C. Pettigrew.	445,287	Jan. 27	2096	541	54	433
Billet-conveyer.	C. Pettigrew.	445,288	Jan. 27	2097	542	54	433
Billet-conveyer.	H. S. Smith, F. H. Treat, and C. Pettigrew.	455,062	June 30	2972	755	55	1743
Billet-conveyer.	F. H. Treat.	445,290	Jan. 27	2099	542	54	433
Billet-conveyer.	F. H. Treat.	445,292	Jan. 27	2102	544	54	434
Billet-forming. Process of and machine for.	H. S. Smith, F. H. Treat, and C. Pettigrew.	455,063	June 30	2973	755	55	1743
Billet-receiving table.	F. H. Treat.	445,293	Jan. 27	2103	545	54	434
Billet-shears.	F. H. Treat.	445,294	Jan. 27	2104	545	54	435
Billets. Apparatus for stamping.	F. H. Treat.	445,291	Jan. 27	2100	543	54	434
Billets. Combined shears and conveyer for.	F. H. Treat, H. S. Smith, and C. Pettigrew.	455,074	June 30	2991	761	55	1747
Billiard-button.	C. L. Gill.	451,039	Apr. 28	2169	536	55	444
Billiard-counter.	W. W. Harrison.	462,704	Nov. 10	768	200	57	707
Billiard-cue.	W. S. and T. Thompson.	450,898	Apr. 21	1942	477	55	392
Billiard-cue attachment.	N. Wickliffe.	453,797	June 9	976	254	55	1341
Billiard-cue-tip fastener.	W. H. Jacoby.	452,014	May 12	883	226	55	754
Billiard-cushion.	S. De Gaetano.	457,529	Aug. 11	997	255	56	726
Billiard-register.	E. D. Waterbury and A. E. Rankin.	457,859	Aug. 18	1526	397	56	837
Billiard-table.	W. Buttery.	459,957	Sept. 22	2234	561	56	1519
Billiard-table.	L. A. Spaulding.	453,674	June 9	779	201	55	1303
Billiard-table attachment.	P. T. Kavanagh.	462,843	Nov. 10	994	257	57	752
Billiard-table attachment.	E. D. Pritchard.	453,208	June 2	40	12	55	1156
Billiard-table. Pneumatic.	E. L. McConaughy.	460,592	Oct. 6	75	20	57	17
Billiard-table register.	P. A. Eichler.	456,693	July 28	2229	589	56	450
Billiard-tables. Game-counter for.	G. C. Bateman.	451,993	May 12	851	218	55	748
Billiards. Miniature.	A. F. Cogswell and S. F. Woody.	445,626	Feb. 3	170	45	54	545
Bin.	See Coal or grain bin. Flour or meal bin.						
Bin.	Flour-bin. Store-bin.						
Bin.	T. H. Williams.	464,409	Dec. 1	624	153	57	1252
Bin.	J. Wilson.	455,082	June 30	3001	763	55	1749
Bin and sifter. Combined.	J. P. Davis and G. B. Harwell.	465,356	Dec. 15	2165	554	57	1564
Bin and sifter. Combined.	D. A. Wilkinson.	458,670	Sept. 1	193	45	56	1102

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g	Vol.	Page.
Bin or holder for coffee, &c.	B. R. Bacon	447,532	Mar. 3	439	108	54	1200
Bins, &c. Construction of walls for	J. Wilson	459,806	Sept. 22	1996	502 503	56	1473
Binder	L. G. Rubel	445,357	Jan. 27	2200	571	54	455
Binder for papers, &c.	J. Fitzpatrick and J. Ring	460,090	Sept. 22	2436	609	56	1557
Binder. Load.	H. M. Bradley	453,897	June 9	1097	287	55	1364
Binder. Load.	J. H. Johnson	448,362	Mar. 24	2607	654	54	1639
Binder. Order-sheet.	R. J. Copeland and A. E. Chatter- son.	448,411	Mar. 17	1877	472	54	1494
Binder. Self.	W. N. Parrish	457,665	Aug. 11	1201	308 309	56	765
Binder. Temporary	A. G. Blincoe	453,574	June 2	619	158	55	1264
Binder. Temporary	J. Dornbierer	444,695	Jan. 13	1115	298	54	228
Binder. Temporary	W. S. Gray	464,662	Dec. 8	1006	252	57	1337
Binder. Temporary	C. E. Morehouse	464,731	Dec. 8	1126	279	57	1358
Binder. Temporary	H. W. Scattergood	461,099	Oct. 13	850	219	57	171
Binder. Temporary	F. J. Vernon	463,323	Nov. 17	1755	460	57	907
Binders, &c. Grain-conveyer for	G. Schubert	446,473	Feb. 17	1599	392	54	842
Binding. Book.	L. Bailey	462,027	Oct. 27	2410	598	57	484
Binding-post	C. A. Lieb	446,871	Feb. 24	2223	552	54	975
Binding-posts. Making	E. T. Greenfield	454,430	June 16	1882	492	55	1523
Binding. Removable	H. G. and J. B. Barlow	445,031	Jan. 20	1691	434	54	346
Binding-strap	L. L. Tower	446,110	Feb. 10	981	241	54	710
Binnacle. Ship's	J. L. Bliss	448,201	Mar. 17	1515	386	54	1426
Bird-cage	F. M. Gilbert	459,396	Sept. 15	1345	337	56	1344
Bird-cage	A. B. Hendryx	455,042	June 30	2927	745	55	1734
Bird-cage perch	J. F. Sweeney	447,006	Feb. 24	2444	608	54	1014
Bisulphide of carbon. Retort for making	J. Beck	464,747	Dec. 8	1149	285	57	1362
Bisulphites. Apparatus for making solutions of	F. J. Peck and J. A. Outtersen	464,104	Dec. 1	145	36	57	1164
Bisulphites. Apparatus for making	N. H. Brokaw	456,791	July 28	2395	631	56	481
Bit:							
See Anger-bit.	Drill-bit.						
Boring-bit.	Expansion-bit.						
Bridle-bit.	Teething-bit.						
Curb-bit.							
Bit	F. J. Roche	444,161	Jan. 6	298	72	54	61
Bit-brace	O. Peck	461,617	Oct. 20	1749	431	57	349
Bit for horses	C. P. Gregory	444,425	Jan. 13	698	182	54	146
Bit-holder. Compensating	S. B. Minnich	460,922	Oct. 6	600	152	57	117
Bit-stock	W. Cameron	463,440	Nov. 17	1945	507	57	944
Bit-stock	W. S. Davis	443,989	Jan. 6	3	1	54	3
Black-heads. Instrument for removing	D. C. Gilbert	465,816	Dec. 22	2877	736	57	1713
Blackboard, &c.	W. N. Cutlbert	454,597	June 23	2157	557	55	1581
Blackboard. Composition	G. W. Henry	453,388	June 2	318	...	55	1207
Blackboard. Many-surfaced	W. H. Larow	458,852	Sept. 1	472	113	56	1156
Blacking and polishing machine. Boot or shoe	W. H. Gilman	460,335	Sept. 29	2819	702	56	1638
Blacking-case	J. M. Wheeler	450,440	Apr. 14	1212	295	55	237
Blacking-machine	R. Nagle	454,755	June 23	2393	614	55	1627
Blacking. Shoe.	G. P. Tipton	449,339	Mar. 31	3364	...	54	1789
Blacking spreading device. Liquid.	G. E. Meeker	457,826	Aug. 18	1466	382	56	826
Blade-sharpener	W. H. Reynolds	453,661	June 9	760	196	55	1300
Blancher for celery, &c.	A. White	459,804	Sept. 22	1995	501	56	1473
Blanket-holder	J. F. Taylor	458,306	Aug. 25	2259	552	56	982
Blanket. Water-proof	H. W. Libbey	463,280	Nov. 17	1684	440	57	895
Blankets, &c. Machine for finishing	A. F. Bornet	444,688	Jan. 13	1106	286	54	226
Blast-furnace	J. M. Hartman	460,231	Sept. 29	2650	660	56	1606
Blast-furnace	M. R. Hunt	452,607	May 19	1881	473 474	55	946
Blast-furnace	H. Kennedy	457,302	Aug. 4	424	110	56	613
Blast-furnace	S. Parker	446,168	Feb. 10	1092	268	54	729
Blast-furnace lining	J. Gayley	463,146	Nov. 17	1476	...	57	854
Blast-furnace lining	J. Gavley	463,147	Nov. 17	1477	...	57	855
Blast-furnaces. Bell and hopper for	B. F. Conner	445,850	Feb. 3	560	136	54	621
Blasting-plug	R. J. Bolt	456,978	Aug. 4	86	21	56	550
Blasting rock	J. L. L. Knox	465,410	Dec. 15	2242	575	57	1580
Blasting. Submarine.	T. Puskas	449,272	Mar. 31	3225	815	54	1767
Bleaching apparatus	F. A. Cloudman, E. B. Newcomb, and F. H. Cloudman.	458,822	Sept. 1	423	101	56	1146
Bleaching vegetables and animal matter. Apparatus for	H. K. de Pawlowski	453,975	June 9	1199	313	55	1385
Blind and frame therefor. Sliding venetian	C. Niss, Jr.	444,302	Jan. 6	503	131 132	54	101
Blind-fastener	H. C. Bushnell	453,590	June 2	644	166	55	1269
Blind-fastening	O. Adams	462,187	Oct. 27	2656	665	57	530
Blind pulley. Venetian	J. G. Wilson	450,392	Apr. 14	1136	278	55	224
Blind-slat tenon	A. Kneip	446,781	Feb. 17	2060	513	54	933
Blind-stile boring and mortising machine	W. C. and J. A. Aycock	447,270	Feb. 24	2923	726 727	54	1106
Blind-stop.	T. Gohlke	448,517	Mar. 17	2035	509	54	1523
Blind-stop	J. F. Roll	457,269	Aug. 18	1544	401	56	840
Blind-stop	A. Rowley	461,524	Oct. 20	1607	393	57	323
Blind-stop	A. P. Smith	459,595	Sept. 15	1665	415	56	1403
Blind stop or pull.	N. F. Mathewson	459,723	Sept. 15	1872	471	56	1443
Blind. Venetian	S. J. Fisher	451,924	May 12	746	187	55	727
Blind. Venetian	M. S. Simmons and C. Angus	455,912	July 14	989	258	56	198
Blind. Window.	W. N. Cary	448,177	Mar. 10	1465	373	54	1406
Blind. Window.	A. P. Heidt	456,306	July 21	1589	420	56	320
Blind. Window.	G. W. Morstatt	450,316	Apr. 14	1011	250	55	201
Blind. Window	E. Stoeppelwerth and C. H. Knefel- kamp.	465,395	Dec. 15	2221	570	57	1576
Blind. Window.	E. Stoeppelwerth and C. Knefel- kamp.	465,787	Dec. 22	2834	726	57	1705
Blind. Window or door	J. A. Manle	465,098	Dec. 15	1731	439	57	1484
Blinds. Friction device for inside	J. B. Hartman	454,349	June 16	1745	454	55	1497

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Block:							
See Anti-friction block.	Fuse-block.						
Boot-block.	Gag-block.						
Brake-block.	Hoisting-block.						
Building-block.	Keel-block.						
Ceiling-block.	Lubricant block.						
Construction and paving block.	Paving-block.						
Engraving-block.	Pulley-block.						
	Snatch-block.						
Block and tackle	J. L. Ebert	454,962	June 30	2770	706	55	1703
Block grooving and jointing machine	H. Beisheim	464,191	Dec. 1	281	69,70	57	1188
Block-shaping machine	E. J. F. Coleman	461,866	Oct. 27	2155	531	57	435
Block-signal	M. P. Crawford	445,928	Feb. 3	673	{ 164 165 }	54	643
Blotter-pad and calendar.	F. B. Gibbs	450,741	Apr. 21	1686	408	55	345
Blotting-pad	J. Patterson	458,481	Aug. 25	2543	620	56	1035
Blow or pressure. Coin-controlled machine for indicating the force of a	A. J. C. Graf	446,970	Feb. 24	2392	{ 585 586 }	54	1004
Blower. Fan.	F. F. Landis	449,743	Apr. 7	154	38	55	31
Blower. Fan.	J. S. Schoonover	447,909	Mar. 10	1052	263	54	1324
Blower. Grate.	J. D. Foster	454,468	June 23	1939	505	55	1542
Blower or fan. Electric.	W. B. Snow	463,585	Nov. 17	2175	574	57	988
Blower. Powder.	A. E. Magoris	465,484	Dec. 22	2358	604	57	1613
Blowers. Means for operating	T. A. and J. H. Murphy	464,638	Dec. 8	965	239	57	1330
Blowing-engine	W. E. Good	464,964	Dec. 15	1478	{ 371 372 }	57	1437
Blowing-engine	S. P. Watt	456,643	July 28	2144	{ 567 568 }	56	434
Board:							
See Bread-board.	Ironing-board.						
Center-board.	Key-board.						
Crimping-board.	Kneading-board.						
Cutting and draining board.	Matrix-board.						
Dash-board.	Press-board.						
Dough-board.	Resistance-board.						
Drawing-board.	Rocking board.						
Drying-board.	Shooting-board.						
Electrical switch-board.	Stove-board.						
Embalmng-board.	Switch-board.						
Engineer's order bulletin-board.	Talking-board.						
Game-board.	Telephone switch-board.						
Game-board.	Wash-board.						
Board or game table.	J. S. Burroughes	448,120	Mar. 10	1370	351	54	1387
Boat:							
See Canal-boat.	Separable boat.						
Life-boat.	Torpedo-boat.						
Boat-detaching apparatus.	M. Wogan	447,421	Mar. 3	241	61	54	1163
Boat-detaching apparatus. Automatic.	B. A. Capehart	460,556	Oct. 6	18	5	57	6
Boat-lowering apparatus	J. H. Throop	459,822	Sept. 22	2029	509	56	1440
Boat-scuttling device.	E. H. Pratt	464,715	Dec. 8	1104	273	57	1354
Boats. Bow for transfer.	M. H. March	461,119	Oct. 13	874	225	57	175
Boats. Foot-rest for row.	B. E. Truscott	457,236	Aug. 4	475	125	56	622
Boats. Paddle attachment for	J. Rehm and F. A. C. Marx	456,846	July 28	2489	654	56	497
Boats. Row-lock for	J. Williams	449,787	Apr. 7	221	56	55	45
Bobbin	J. Hegeman	465,852	Dec. 29	2943	753	57	1735
Bobbin	S. D. Keene	465,045	Dec. 15	1636	416	57	1466
Bobbin	A. Obenhoff	450,730	Apr. 21	1675	404	55	342
Bobbin	I. Smith	461,597	Oct. 20	1716	419	57	343
Bobbin or spool	J. L. Cheney	450,218	Apr. 14	842	211	55	170
Bobbin or spool	G. Pendleton, Jr.	455,453	July 7	244	62	56	4
Bobbin-winding machine	J. W. Eisenhart	445,765	Feb. 3	415	{ 103 104 }	54	594
Bobbins. Machine for putting rings upon	L. C. Baldwin	464,650	Dec. 8	988	246	57	1334
Body-battery and attachments for the same	J. A. Crisp and G. F. Webb	448,123	Mar. 10	1387	354	54	1391
Boiler:							
See Coffee-boiler.	Paper-pulp boiler.						
Culinary boiler.	Portable boiler.						
Cylindrical boiler.	Range-boiler.						
Dinner-boiler.	Sectional boiler.						
Egg-boiler.	Steam-boiler.						
Fire and water tube boiler.	Tubular boiler.						
Gas-fired boiler.	Upright boiler.						
Heating-boiler.	Vertical boiler.						
Hot-water boiler.	Wash-boiler.						
Hot-water or steam boiler.	Water-coil boiler.						
	Water-tube boiler.						
Boiler	T. E. Button	459,561	Sept. 15	1608	403	56	1393
Boiler	J. A. Cauldwell	464,956	Dec. 15	1465	369	57	1435
Boiler	T. A. Kidd	443,997	Jan. 6	18	5	54	7
Boiler	J. Lapp	452,379	May 19	1514	375	55	878
Boiler	C. P. Marshall	462,718	Nov. 10	786	205	57	711
Boiler	C. E. Marston	445,473	Jan. 27	2358	612	54	486
Boiler	P. E. J. and G. A. L. Nielausse	460,254	Sept. 29	2681	668	56	1612
Boiler	O. W. Noble	456,090	July 14	1243	{ 326 327 }	56	245
Boiler	J. C. Stamp	448,382	Mar. 17	1830	461	54	1485
Boiler	G. S. Strong	466,085	Dec. 29	3340	{ 853 854 }	57	1812
Boiler-alarm. Electric	M. Beckers	461,178	Oct. 13	970	249	57	192
Boiler alarm. Steam	A. W. Gilfillan	452,437	May 19	1613	401	55	896

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Boiler and boiler-furnace.....	G. J. Cartwright.....	465,831	Dec. 29	2908	745	57	1729
Boiler and pipe covering.....	R. S. Miller.....	465,718	Dec. 22	2729		57	1683
Boiler attachment. Steam.....	J. Gregory.....	462,314	Nov. 3	157	40	57	580
Boiler-cleaner.....	J. L. and W. E. Alexander.....	462,522	Nov. 3	470	115	57	640
Boiler-cleaner.....	R. P. Faries.....	449,671	Apr. 7	37	9	55	9
Boiler-cleaner.....	T. E. Jones.....	456,894	July 28	2566	675	56	512
Boiler-cleaner.....	S. C. La Hatt.....	447,192	Feb. 24	2788	689	54	1078
Boiler-cleaner.....	H. C. Nye.....	450,974	Apr. 21	2070	511	55	417
Boiler-cleaner.....	W. Polley.....	457,749	Aug. 11	1347	349	56	797
Boiler-cleaner.....	F. Trowbridge.....	459,798	Sept. 22	1987	500	56	1471
Boiler-cleaning compound.....	E. J. Hoffmann.....	450,232	Apr. 14	881	219	55	176
Boiler-feeder.....	J. Austin.....	446,411	Feb. 17	1505	371	54	823
Boiler-feeder.....	J. Austin.....	461,949	Oct. 27	2294	568	57	462
Boiler-feeder.....	J. E. Winder.....	453,526	June 2	545	140	55	1250
Boiler-feeder and meter.....	J. E. Winder.....	450,902	Apr. 21	1949	478	55	394
Boiler-feeding. Automatic vacuum-regulator for.....	F. G. Fowler.....	462,251	Nov. 3	215	51, 52	57	592
Boiler for generating steam.....	B. Ford.....	449,735	Apr. 7	142	35	55	29
Boiler-front.....	C. R. Smith.....	458,077	Aug. 18	1876	489	56	904
Boiler-furnace.....	J. F. Bliss.....	459,435	Sept. 15	1408	{ 351 } 352	56	1355
Boiler-furnace.....	G. J. Cartwright.....	460,359	Sept. 29	2860	712	56	1646
Boiler-furnace.....	S. Eggenberger.....	463,829	Nov. 24	2,57	666	57	1069
Boiler-furnace.....	J. C. Henderson.....	463,191	Nov. 17	1546	403	57	868
Boiler-furnace.....	S. Porter.....	444,984	Jan. 20	1630	418	54	334
Boiler-furnace.....	E. A. Wheeler.....	465,303	Dec. 15	2064	528	57	1546
Boiler-furnace.....	E. A. Wheeler.....	465,304	Dec. 15	2065	528	57	1546
Boiler-furnace circulator.....	C. A. McAllister.....	454,140	June 16	1439	376	55	1438
Boiler furnace. Smoke-preventing water-tube.....	T. Reese, Jr., and H. W. Seller.....	448,076	Mar. 10	1311	{ 335 } 336	54	1375
Boiler furnace. Steam.....	F. G. Bates.....	445,419	Jan. 27	2289	{ 583 } 594	54	473
Boiler furnace. Steam.....	J. T. Ellis.....	446,705	Feb. 17	1951	486	54	911
Boiler furnace. Steam.....	A. Heberer.....	464,155	Dec. 1	221	53	57	1178
Boiler furnace. Steam.....	M. E. Herbert.....	454,350	June 16	1746	454	55	1498
Boiler furnace. Steam.....	J. Thurell.....	458,042	Aug. 18	1829	476	56	894
Boiler furnace. Steam.....	F. Trowbridge.....	451,961	May 12	798	202	55	737
Boiler furnaces. Arch-plate for steam.....	J. Fea and W. H. Hoag.....	448,218	Mar. 17	1515	395	54	1430
Boiler furnaces. Gas and smoke consumer for steam.....	G. A. Farwell.....	452,344	May 12	1461	362	55	857
Boiler-making apparatus.....	J. Tetlow.....	456,918	July 28	2616	686	56	521
Boiler or other furnace. Steam.....	J. Gasteiger.....	448,808	Mar. 24	2513	{ 629 } 630	54	1622
Boiler or other furnace. Steam.....	E. de Strens.....	462,515	Nov. 3	459	112	57	638
Boiler-pedestal.....	A. P. Creque.....	444,692	Jan. 13	1111	287	54	227
Boiler-purge feeder.....	N. E. Shontz.....	445,909	Feb. 3	642	158	54	638
Boiler purifier. Steam.....	J. E. Kintzel.....	458,836	Sept. 1	449	108	56	1151
Boiler separator. Steam.....	C. D. Mosher.....	454,984	June 30	2818	717	55	1713
Boiler setting. Steam.....	J. M. Allen.....	448,576	Mar. 17	2124	532	54	1541
Boiler setting. Steam.....	W. B. Le Van.....	457,537	Aug. 11	1009	{ 258 } 259	56	729
Boiler setting. Steam.....	S. Runser.....	454,771	June 23	2416	620	55	1631
Boiler stand or support.....	A. P. Creque.....	444,693	Jan. 13	1112	287	54	228
Boiler-stay.....	T. Barrow.....	459,954	Sept. 22	2231	560	56	1518
Boiler-tube cleaner.....	A. R. Cooper and T. E. Stucky.....	452,362	May 19	1494	370	55	874
Boiler-tube cleaner.....	T. D. Stetson.....	465,437	Dec. 15	2282	585	57	1589
Boiler-tube expander.....	O. Johnson.....	453,147	May 26	1758	635	55	1123
Boiler-tube scraper.....	H. V. Clynick.....	454,032	June 16	1285	335	55	1409
Boiler-tube stopper.....	W. N. Little.....	458,304	Aug. 25	2257	551	56	981
Boiler-tubes. Apparatus for cleaning.....	J. Platt and T. Thorp.....	451,841	May 5	598	148	55	693
Boiler water-tube. Steam.....	E. G. Shortt.....	447,209	Feb. 24	2812	636	54	1083
Boilers. Apparatus for removing scale from tubes in steam.....	J. Platt and T. Thorp.....	452,802	May 26	2194	550	55	1015
Boilers. Apparatus through which air is supplied to furnaces of steam.....	W. J. Chubb.....	448,178	Mar. 10	1467	374	54	1407
Boilers. Baffle-plate for.....	F. F. Landis.....	464,305	Dec. 1	478	115	57	1225
Boilers. Cleaning.....	J. M. Boyer.....	444,481	Jan. 13	783		54	164
Boilers. Constructing the flues of Galloway.....	W. Sellers.....	454,571	June 23	2095	{ 540 } 541	55	1571
Boilers. Crown-sheet of steam.....	E. Heuer.....	461,180	Oct. 13	971	250	57	193
Boilers. Feed apparatus for heating.....	J. R. Hanlon.....	454,733	June 23	2361	606	55	1620
Boilers. Feeding.....	N. Clute.....	454,899	June 30	2647	679	55	1679
Boilers. Feeding.....	N. Clute.....	454,900	June 30	2649	679	55	1680
Boilers. Gas-heating device for steam.....	M. Boecker.....	445,420	Jan. 27	2290	594	54	473
Boilers. Hand-hole plate for.....	E. P. Robinson.....	455,358	July 7	91	27	56	22
Boilers. Machine for calking seams and joints of steam.....	G. J. and C. H. Hoskins.....	449,286	Mar. 31	3254	825	54	1771
Boilers. Mechanical stoker for steam.....	J. Proctor.....	454,379	June 16	1798	{ 469 } 470	55	1506
Boilers. Sediment-trap for.....	M. Abrams and F. L. McGahan.....	456,711	July 28	2255	597	56	456
Boilers. Steam-loop connection for steam.....	W. C. Kerr.....	456,672	July 28	2194	{ 581 } 582	56	444
Boilers, &c. Tool for plugging openings in.....	H. S. Reynolds.....	447,351	Mar. 3	117	31	54	1140
Bolster. Extension.....	F. Roberts and G. Pullen.....	454,620	June 23	2195	566	55	1587
Bolster. Sham.....	O. A. Hanford.....	456,410	July 21	1760	465	56	353
Bolster-spring.....	N. L. Holmes.....	448,342	Mar. 17	1774	449	54	1474
Bolster-standard.....	J. T. Livingston.....	463,803	Nov. 24	2520	657	57	1062
Bolt: See Door-bolt. Interlocking bolt. Expansion-bolt. King-bolt. Flour-bolt. Rotary bolt. Flush-bolt. Screw-bolt. Headed bolt.							
Bolt.....	A. D. and F. L. Adams.....	460,191	Sept. 29	2591	646	56	1594
Bolt.....	E. Huber.....	447,516	Mar. 3	411	100	54	1195
Bolt.....	T. Loescher and H. Schmith.....	459,110	Sept. 8	894	214	56	1247

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Bolt	F. Stroh and M. J. McIntosh	446,997	Feb. 24	2431	605	54	1012
Bolt	C. Zander	465,550	Dec. 22	2481	633	57	1636
Bolt and rivet cutter	J. Helwig	444,635	Jan. 13	1016	265	54	209
Bolt-cutter	M. R. Chrisler	454,852	June 30	2560	659	55	1664
Bolt-cutter	W. L. Dutcher	448,324	Mar. 17	1738	439	54	1468
Bolt-cutter	J. Lussier	458,706	Sept. 1	246	58	56	1112
Bolt-cutter	W. Woolgar	459,620	Sept. 15	1706	427	56	1410
Bolt-extracting device	W. W. Johnson	461,939	Oct. 27	2284	565	57	460
Bolt-fastening device. Expansible	C. J. Phillips	445,332	Jan. 27	2163	561	54	448
Bolt-grip	T. Spriggs	455,645	July 7	562	145	56	109
Bolt having slotted head, squared neck, threaded shank, and screw-nut.	P. A. Gerry	452,640	May 19	1939	486	55	957
Bolt-header	M. D. Luehrs	460,658	Sept. 22	2385	596	56	1547
Bolt heading and forging machine	M. D. Luehrs	466,249	Dec. 29	3598	921	57	1860
Bolt-heading machine	G. H. Webb	451,604	May 5	239	57	55	625
Bolt-holder	J. A. Milburn	455,721	July 7	688	181	56	132
Bolt-machine	C. and C. E. Hall	447,110	Feb. 24	2621	{ 650 651 }	{ 54 54 }	{ 1048 1048 }
Bolt-making die	T. J. Bush	446,768	Feb. 17	2046	510	54	930
Bolt-milling machine	G. H. Webb	451,145	Apr. 28	2326	577	55	476
Bolt-operating mechanism for safe-doors	E. and H. C. Stockwell	454,595	June 23	2152	{ 555 556 557 }	{ 55 55 55 }	{ 1580 1580 1580 }
Bolt or pin	H. K. Jones	446,740	Feb. 17	2007	500	54	922
Bolt or rivet heading machine	C. S. Seaton and F. Miller	458,240	Aug. 25	2135	{ 524 525 }	{ 56 56 }	{ 960 960 }
Bolt or rivet machine	C. and C. E. Hall	459,155	Sept. 8	962	234	56	1260
Bolt or rod cutter	E. A. Munson	446,360	Feb. 10	1408	345	54	792
Bolt or rod cutter	J. C. Stokes	444,924	Jan. 20	1532	394	54	315
Bolt-puller and jack-screw. Combined	T. C. Gatti	452,752	May 19	2119	533	55	991
Bolt-threading machine	E. Hubner	459,634	Sept. 15	1738	{ 436 437 438 }	{ 56 56 56 }	{ 1417 1417 1417 }
Bolt-work for safes	J. Farrel	451,417	Apr. 28	2760	682	55	559
Bolts and nuts. Machine for cutting threads on	T. L. Lumby	448,971	Mar. 24	2759	697	54	1669
Bolts. Die for making	T. J. Bush	445,001	Jan. 20	1656	424	54	339
Bolts. Dye for making	T. J. Bush	446,281	Feb. 10	1290	316	54	767
Bolts, &c. Machine for heading	C. S. Seaton	444,460	Jan. 13	750	{ 196 197 }	{ 54 54 }	{ 157 157 }
Bolts or pins. Manufacture of	H. K. Jones	446,739	Feb. 17	2005	500	54	922
Bolting-cloths. Stretching device for	J. C. Dibb	457,637	Aug. 11	1163	297	56	759
Bolting devices. Flop-board for	J. A. Seghers	460,763	Oct. 6	364	90	57	72
Bolting-machine	O. Esche	450,310	Apr. 14	999	{ 247 248 }	{ 55 55 }	{ 198 198 }
Bolting-machine	S. A. Nordyke	461,843	Oct. 27	2119	522	57	428
Bolting-reel	A. Dobson	453,439	June 2	418	109	55	1226
Bolting-reel	F. P. Trautwein	452,812	May 26	2209	554	55	1019
Bolting-screen	T. and G. M. Parkinson	449,913	Apr. 7	405	{ 101 102 }	{ 55 55 }	{ 79 79 }
Book	A. Abbott	462,226	Nov. 3	1	1	57	553
Book	C. R. Brodix	456,717	July 28	2265	600	56	458
Book. Account	J. W. Garneau	445,313	Jan. 27	2135	{ 551 552 }	{ 54 54 }	{ 442 442 }
Book. Account	H. J. Huck, Jr.	452,970	May 26	2468	{ 624 625 }	{ 55 55 }	{ 1068 1068 }
Book and directory. Combined counter check	H. B. Butterfield	448,207	Mar. 17	1527	391	54	1427
Book and paper holder. Adjustable	J. R. Lenthart	453,931	June 9	1145	299	55	1374
Book and tally-sheet. Poll	H. M. Geiger	450,582	Apr. 14	1399	345	55	276
Book. Bank-account	W. Thomson	444,583	Jan. 13	951	247	54	197
Book. Bank teller's cash	J. S. Whiting	452,404	May 19	1564	388	55	887
Book-binder	G. G. Barton	462,426	Nov. 3	335	82	57	614
Book-binder's machine	R. W. Smith and H. L. Arnold	449,595	Mar. 31	3781	949	54	1868
Book-binder's press	W. H. Christie	450,882	Apr. 21	1924	472	55	389
Book-binder's press	C. Keck	450,886	Apr. 21	1929	473	55	389
Book-binding	C. F. Jewett	451,003	June 9	1244	321	55	1394
Book-binding	D. W. Landvoigt	459,294	Sept. 8	1172	285	56	1301
Book-binding	C. A. Sullivan	462,959	Nov. 10	1182	306	57	788
Book. Blank	H. H. and F. H. Hoffmann	464,325	Dec. 1	506	121	57	1230
Book. Blank	T. M. White	464,310	Dec. 1	485	116	57	1226
Book-case	C. H. Emerson	455,220	June 30	3339	{ 843 844 }	{ 55 55 }	{ 1813 1813 }
Book-case. Revolving	I. C. Woolrey	447,628	Mar. 3	582	144	54	1227
Book-case. Roller-shelf	H. C. Andross	449,657	Apr. 7	6	1	55	4
Book-case. Check	E. H. Babbitt and E. T. Harvey	447,238	Feb. 24	2870	712	54	1095
Book. Check	R. W. Morgan	461,907	Oct. 27	2228	551	57	450
Book. Check	E. North	462,577	Nov. 3	565	137	57	659
Book. Check	S. A. Thayer	457,466	Aug. 11	896	231	56	706
Book. Check	G. L. Winn	463,567	Nov. 17	2141	565	57	982
Book. Combined receipt and record	H. Loewenbach	447,884	Mar. 10	1003	253	54	1315
Book-cover	P. Closs	444,376	Jan. 6	613	157	54	121
Book-cover fastening	M. Vernon	463,014	Nov. 10	1253	326	57	803
Book-cover. Secondary	H. A. Curtin	455,448	July 7	239	61	56	49
Book. Election tally-sheet	C. W. Brown and G. W. Short	462,650	Nov. 3	670	169	57	680
Book. Flat-opening	J. D. Mets	453,123	May 26	2718	645	55	1117
Book. Flat-opening blank	P. W. Nelson	454,373	June 16	1790	466	55	1504
Book. Flat-opening blank	O. W. Smith	454,076	June 16	1349	353	55	1421
Book-holder	B. P. Field	445,885	Feb. 3	611	150	54	632
Book-holder	A. S. Held	451,430	Apr. 28	2782	687	55	563
Book. Indexed	H. A. Silveira	447,371	Mar. 3	154	42	54	1147
Book-leaf holder	C. L. Higgins	457,764	Aug. 11	1370	353	56	801
Book-leaf holder	H. C. Johnson	461,341	Oct. 13	1232	313	57	247
Book. Manifold sales	C. A. Pinkham	455,354	July 7	83	25	56	20
Book-mark	C. M. Barstow	448,470	Mar. 17	1968	{ 494 495 }	{ 54 54 }	{ 1511 1511 }

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. E.	Vol.	Page.
Book-mark	A. S. Fiske	446,857	Feb. 24	2199	547	54	970
Book. Memorandum	M. A. Miller	465,412	Dec. 15	2245	576	57	1580
Book. Memorandum	C. C. Rueger	451,135	Apr. 28	2310	572	55	473
Book. Memorandum copy	S. J. Silbermann	464,394	Dec. 1	602	148	57	1248
Book or copy holder	F. W. Harrison	457,476	Aug. 11	914	234	56	709
Book or music holder	A. A. Moffitt	464,512	Dec. 8	782	192	57	1294
Book. Picture	J. McLaughlin	462,956	Nov. 10	1179	305	57	787
Book-protector	J. M. Becker and A. Saggese	446,052	Feb. 10	892	216	54	693
Book-rack	J. W. Hine	447,730	Mar. 3	724	182	54	1255
Book-rack	J. W. Hine	458,902	Sept. 1	557	135	56	1172
Book-rack	A. F. Old	448,251	Mar. 17	1598	407	54	1440
Book. Receipt	C. O. Tangeman	456,862	July 28	2519	661 662	56	503
Book-rest	J. Brown	462,467	Nov. 3	396	97	57	626
Book-rest	B. Gunnarson	465,262	Dec. 15	1996	511	57	1533
Book rest or support. Adjustable	C. W. Becannon	446,278	Feb. 10	1287	315	54	766
Book. Spring-back	A. C. Fletcher	446,858	Feb. 24	2200	547	54	970
Book-stack for libraries	B. R. Green	466,033	Dec. 29	3268	833 834	57	1796
Book-stand. Adjustable	A. H. Edgren	446,331	Feb. 10	1372	334	54	784
Book. Statistic	F. W. Barrett	444,060	Jan. 6	124	30, 31	54	27
Book. Stock-account	L. A. Warner	462,367	Nov. 3	240	58, 59	57	596
Book-support	L. C. Hunter	452,673	May 19	1983	497	55	965
Book-support and desk	H. J. Harrison	456,089	July 14	1242	326	56	245
Book-support. Revolving	C. H. Burdick	451,632	May 5	291	71	55	633
Book. Time-record	H. W. Scattergood	461,098	Oct. 13	849	219	57	171
Book-trimming machine	C. Seybold. (Reissue)	11,184	Aug. 4	681	175 176	56	658
Books. Apparatus for making leaf-hinges for	H. P. Feister	444,821	Jan. 20	1320	342	54	275
Books, &c. Apparatus for marbleizing or ornamenting	A. Ziehl and T. C. Brecht	450,307	Apr. 14	996	246	55	193
Books. Binding	H. L. Arnold	449,751	Apr. 7	165	40	55	33
Books. Binding	J. H. Workman	455,894	July 14	962	251	56	193
Books. Machine for bundling sheets of unbound	E. Crawley, Sr.	453,312	June 2	204	55	55	1186
Books. Making spring-backs for	A. Von Auw	461,653	Oct. 20	1809	446	57	360
Books. Metal cover for	G. Goldschmidt	465,696	Dec. 22	2703	689	57	1678
Books. Method of and mechanism for making blank	E. N. Martineau	444,669	Jan. 13	1077	279 280	54	221
Books, sheet-music, &c. Holder for	T. Munley	464,219	Dec. 1	336	81	57	1197
Books, &c. Storage-case for	H. J. Hoffman	450,124	Apr. 7	701	177	55	136
Boom-stick	D. W. Case	455,996	July 14	1117	293	56	220
Boot	M. F. Jarden	444,703	Jan. 13	1125	290	54	230
Boot	M. Neuburger	461,961	Oct. 27	2313	573	57	465
Boot and shoe cleaning and polishing machine	B. H. Cook	459,880	Sept. 22	2122	533 534	56	1498
Boot and shoe cleaning device	C. Schmidt	461,512	Oct. 20	1590	388	57	320
Boot-block	L. O. Michael	463,404	Nov. 17	1898	495	57	934
Boot-drier	E. A. Jones	454,050	June 16	1307	341	55	1414
Boot. Fabric	M. V. Beiger and A. Eberhart	452,158	May 12	1153	292	55	799
Boot-jack	H. C. De Goller	453,737	June 9	880	228	55	1323
Boot or shoe	H. F. Allen and D. N. Gibbs	445,529	Feb. 3	2	1	54	511
Boot or shoe	G. H. Clark	455,305	July 7	14	3	56	5
Boot or shoe	S. C. Howard, G. W. Parks, and W. F. Whiting	455,847	July 14	894	235	56	180
Boot or shoe	G. Valiant	452,655	May 19	1957	491	55	960
Boot or shoe case	S. F. Frazier	447,150	Feb. 24	2716	673	54	1064
Boot or shoe cleaner	C. Johnson	447,116	Feb. 24	2632	653	54	1050
Boot or shoe heel	F. P. McIntyre	456,677	July 28	2202	584	56	446
Boot or shoe heel	O. Zietz	460,904	Oct. 6	576	146	57	113
Boot or shoe heels. Clamp for preparing lifts for	J. R. Scott	455,121	June 30	3067	780	55	1761
Boot or shoe. Laced	E. L. Keith	451,694	May 5	385	94	55	652
Boot or shoe last	E. O. and G. A. Krentler	456,994	Aug. 4	103	25	56	553
Boot or shoe. Machine for trimming the edge of the upper at the toe of a	G. W. Day	463,948	Nov. 24	2756	715	57	1107
Boot or shoe nailing machine	H. H. Buffum	459,698	Sept. 15	1826	458 459 460 461	56	1434
Boot or shoe nailing machine	S. W. Robinson	447,359	Mar. 3	135	37	54	1143
Boot or shoe scraper	C. Spahner	444,716	Jan. 13	1142	294	54	233
Boot or shoe sole	E. C. Critchlow	460,523	Sept. 29	3113	779	56	1695
Boot or shoe sole trimming machine	H. F. Rooney	464,289	Dec. 1	452	108	57	1221
Boot or shoe stay	W. A. Neely	449,167	Mar. 31	3060	774	54	1736
Boot or shoe stretcher	D. T. Lee	448,352	Mar. 17	1789	451	54	1477
Boot or shoe uppers. Last for creasing	E. C. Woodard	445,360	Jan. 27	2203	571	54	456
Boot or shoe wear-plate	P. R. Bedlington	464,845	Dec. 8	1287	323	57	1390
Boot-pull	J. Walden	453,682	June 9	790	203	55	1305
Boot-soles, &c. Machine for channeling and trimming	J. B. Hadaway	449,247	Mar. 31	3183	803 804	54	1759
Boot-straps. Machine for covering webbing for	W. C. Rand	453,976	June 9	1203	314	55	1386
Boot-tree rest	J. F. O'Brien	461,269	Oct. 13	1121	286	57	223
Boots and shoes. Machine for uniting the soles and uppers of	W. Carey	444,126	Jan. 6	241	58 59 60	54	50
Boots and shoes. Manufacture of	J. W. Jones and E. K. Bridger	456,379	July 21	1717	454	56	344
Boots. Machine for buttoning	J. Keith	458,835	Sept. 1	446	107	56	1150
Boots or shoes. Blacking and burnishing	W. W. Crooker. (Reissue)	11,144	Feb. 10	1502	370	54	810
Boots or shoes. Crumpling-machine for	W. E. Frost	463,970	Nov. 24	2792	724	57	1114
Boots or shoes. Elastic heel for	W. B. Manny	451,200	Apr. 28	2432	601	55	495
Boots or shoes. Machine for forming metal waists for	J. W. Jones and E. K. Bridger	453,813	June 9	995	259	55	1345
Boots or shoes. Machine for stretching uppers of	A. F. Preston	455,024	June 30	2892	735 736	55	1727
Boots or shoes. Manufacture of	G. W. Day	463,947	Nov. 24	2755	715	57	1106

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Boots or shoes. Outer-sole welted	M. L. Keith	449,882	Apr. 7	355	90	55	71
Boots or shoes. Rotary cutter for	T. A. Bresnahan	452,540	May 19	1760	448	55	925
Boots or shoes. Safety-sole for	C. H. and H. Friede	457,423	Aug. 11	829	214	56	695
Boots or shoes. Shank-stiffener for	W. H. Watson	458,353	Aug. 25	2338	570	56	998
Boots or shoes. Ventilator for	P. A. Petterson	454,880	June 30	2605	669	55	1672
Boots or shoes. Welt for	A. Seaver	453,985	June 9	1221	317	55	1390
Booth. Knockdown	P. Zuckriegel	453,528	June 2	548	140	55	1251
Borax. Manufacturing	N. M. Bell	449,064	Mar. 24	2899	736	51	1097
Border-cutter	W. J. Adams	456,928	Aug. 4	1	1	56	533
Boring and mortising implement	C. Reed	450,338	Apr. 14	1053	258	55	208
Boring and reaming drill	J. R. Watts	451,789	May 5	527	130	55	678
Boring and screw-cutting machine	T. F. Hammer	445,175	Jan. 27	1928	498	54	401
Boring and turning mill	W. Lewis	454,801	June 23	2465	633	55	1639
Boring and turning mill	F. W. Taylor	448,277	Mar. 17	1651	{ 420 421 }	54	1451
Boring-bar	L. Burst	463,480	Nov. 17	2001	523	57	955
Boring-bit	E. C. Phillips	458,640	Sept. 1	145	34	56	1094
Boring-cutter	L. S. Wright	454,585	June 23	2126	548	55	1576
Boring-engine	A. D. Pentz	461,202	Oct. 13	1014	{ 258 259 }	57	201
Boring-machine	G. L. Campbell	447,176	Feb. 24	2756	682	54	1072
Boring-machine	N. A. Chaney	464,646	Dec. 8	978	243	57	1332
Boring-machine	A. M. Jewell	446,352	Feb. 10	1398	{ 341 342 }	54	789
Boring-machine	A. M. Jewell	446,353	Feb. 10	1399	342	54	789
Boring-machine	A. M. Jewell	451,594	May 5	227	53 54	55	622
Boring-machine	A. M. Jewell	451,595	May 5	228	54 55	55	622
Boring-machine	L. Kopacek and F. Vutech	454,654	June 23	2247	577	55	1596
Boring-machine	W. Schwanhauser	446,792	Feb. 17	2078	519	54	937
Boring-machine. Soil-	J. Canan	460,369	Sept. 29	2873	717	56	1648
Boring-machines. Adjustable stop for	W. P. Kellogg	454,051	June 16	1308	341	55	1414
Boring or chasing tool	C. B. Rohland	455,640	July 7	554	144	56	107
Boring-tool	E. F. Bengler	451,448	May 5	4	1	55	559
Boring-tool	W. M. Norcross	457,606	Aug. 11	1117	285	56	750
Boring-tool. Expanding	E. F. Bengler	462,789	Nov. 10	900	235	57	733
Bottle and drinking-glass holder. Combined	W. Wilkinson	451,097	Apr. 28	2244	555	55	460
Bottle and stopper	A. Mackie	456,420	July 21	1781	471	56	356
Bottle and stopper. Combined	E. V. Clemens	461,259	Oct. 13	1107	282	57	221
Bottle and stopper therefor	J. T. Ford	453,731	June 9	870	226	55	1320
Bottle and stopper therefor	F. C. H. Strasburger	452,810	May 26	2208	554	55	1018
Bottle-cap. Ejecting	G. P. Yule	446,314	Feb. 10	1344	327	54	778
Bottle capsule-detacher and cork-unfastener	L. Picard	450,891	Apr. 21	1936	475	55	390
Bottle-case	S. E. Hyndman	446,349	Feb. 10	1395	{ 340 341 }	54	789
Bottle-case	C. E. Marlow	446,122	Feb. 10	1000	246	54	714
Bottle-case	W. F. Thiemeyer	456,447	July 21	1824	483	56	364
Bottle-cleaner	F. E. Howland	463,835	Nov. 24	2566	668	57	1072
Bottle-collar. Absorbent	B. H. Day, Jr.	447,635	Mar. 3	589	145	54	1229
Bottle. Drenching	R. Mantey	462,056	Oct. 27	2450	606	57	491
Bottle-filling apparatus	A. M. Donally	445,882	Feb. 3	607	149	54	631
Bottle-filling apparatus	W., Jr., and S. S. Childs	456,400	July 21	1744	{ 460 461 }	56	350
Bottle-filling machine	W. H. Baldinger	447,056	Feb. 24	2540	631	54	1032
Bottle-filling machine	G., J. G., and M. O. Rehfnuss	456,907	July 28	2593	682	56	517
Bottle-filling machine	N. Smith and A. B. Marcey	457,329	Aug. 4	465	122	56	620
Bottle for sterilizing milk. Nursing	G. R. Schimmel	453,511	June 2	526	135	55	1247
Bottle-forming machine	T. B. Howe	447,452	Mar. 3	299	75, 76	54	1174
Bottle-forming machine. Glass	T. B. Howe	447,451	Mar. 3	297	75	54	1173
Bottle holder. Nursing	P. Zimmerman, Jr.	458,933	Sept. 1	605	149	56	1182
Bottle-lock	Z. C. King	445,755	Feb. 3	395	100	54	591
Bottle. Metal-cased	W. T. Hall	449,119	Mar. 31	2992	756	54	1724
Bottle-neck	J. T. Ford	453,970	June 9	1194	311	55	1384
Bottle-necks. Tool for threading	T. T. McCoy	463,575	Nov. 17	2156	569	57	985
Bottle. Nursing	C. C. Balston	449,278	Mar. 31	3241	820	54	1769
Bottle. Nursing	C. C. Balston and J. W. Rose	446,091	Feb. 10	947	232	54	703
Bottle. Nursing	W. M. Coward	460,360	Sept. 29	2861	713	56	1646
Bottle. Nursing	H. O. Flodin	460,857	Oct. 6	494	126	57	98
Bottle. Nursing	J. E. Monroe	446,116	Feb. 10	986	243	54	711
Bottle or flask	L. Jordan	458,906	Sept. 1	562	136	56	1173
Bottle scraper. Mucilage	J. C. Rosnecht	449,298	Mar. 31	3275	829	54	1774
Bottle-seal stopper	E. V. Clemens	461,258	Oct. 13	1104	282	57	221
Bottle-stopper	W. P. Bonwick	450,479	Apr. 14	1266	309	55	248
Bottle-stopper	J. Burghard and C. J. Heimberger	453,420	June 2	388	101	55	1220
Bottle-stopper	G. S. Chamberlin	455,737	July 14	727	191	56	148
Bottle-stopper	G. C. Clark	444,200	Jan. 6	361	90	54	73
Bottle-stopper	M. Crawford	450,766	Apr. 21	1727	418	55	353
Bottle-stopper	M. Cziner	456,480	July 21	1875	495	56	374
Bottle-stopper	A. E. Dain	450,993	Apr. 21	2100	518	55	422
Bottle-stopper	D. C. Gulltinan	454,731	June 23	2359	606	55	1620
Bottle-stopper	M. Herzberg	462,766	Nov. 10	862	226	57	726
Bottle-stopper	B. P. Kincaid and C. D. Crielker	458,282	Aug. 25	2224	545	56	976
Bottle-stopper	J. H. Luckey	461,941	Oct. 27	2286	566	57	461
Bottle-stopper	D. O'Kane	460,486	Sept. 29	3039	761	56	1679
Bottle-stopper	W. Painter	449,822	Apr. 7	275	71	55	55
Bottle-stopper	F. W. Perry	448,070	Mar. 10	1306	{ 333 334 }	54	1373
Bottle-stopper	S. H. Ryder	453,666	June 9	769	199	55	1301
Bottle stopper and fastener	A. Philburn	465,883	Dec. 29	3004	766	57	1746
Bottle stopper and liquid-dropper	V. C. Monette	449,391	Mar. 31	3263	827	54	1773
Bottle-stopper cap	C. Schroeder	451,137	Apr. 28	2313	573	55	474
Bottle-stopper. Internal	G. V. Bonker	465,915	Dec. 29	3051	781	57	1756
Bottle-stoppering device	M. Elb and F. G. Moser	454,463	June 23	1931	501	55	1541
Bottle-washer	J. A. House	445,408	Jan. 27	2272	590	54	469
Bottle-washing device	C. W. Fox	457,603	Aug. 11	1114	224	56	749

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Bottle-washing machine.....	O. Eick	463,360	Nov. 17	1818	{ 475 476 }	57	919
Bottle-washing machine.....	S. Twitchell	444,261	Jan. 6	448	113	54	88
Bottle-washing machines. Brush or cleaner for.....	J. M. Hoyt	450,824	Apr. 21	1831	444	55	371
Bottle-wiring machine	C. L. Curtis	448,854	Mar. 24	2586	{ 650 651 }	54	1636
Bottle-wrapper	H. C. Howett	453,169	May 26	2809	704	55	1130
Bottles, &c. Apparatus for finishing necks of.....	S. C. Stancliffe	457,035	Aug. 4	154	37	56	563
Bottles. Applying wire cork-retainers to.....	C. L. Curtis	445,803	Feb. 3	498	120	54	609
Bottles, &c. Closing device for	M. Rhoinstrom	447,974	Mar. 10	1162	294	54	1344
Bottles, &c. Closing device for soda-water.....	J. Nadler	462,576	Nov. 3	563	137	57	659
Bottles. Feed-stopper for mucilage.....	W. A. H. Stafford	444,142	Jan. 6	270	65	54	56
Bottles. Fraud-preventive in capsuled	C. Cheswright	447,397	Mar. 3	201	53	54	1156
Bottles, &c. Instrument for handling	A. Ruff	461,805	Oct. 20	2061	508	57	407
Bottles. Machine or apparatus for capsuling.....	C. Cheswright	463,576	Nov. 17	2158	{ 569 570 }	57	985
Bottles. Packing for	E. D. Averell	463,300	Nov. 17	1716	447	57	900
Bottler's steaming-pan	H. Krous	464,774	Dec. 8	1190	296	57	1370
Bottling aerated water. Machine for.....	T. Ferguson	447,508	Mar. 3	400	98	54	1193
Bottling apparatus.....	U. Bachmann	459,245	Sept. 8	1098	268	56	1285
Bottling-machines. Safety-shutter for.....	E. S. and H. Hughes	454,960	June 30	2813	716	55	1712
Bouquet-holder	N. R. Sheets	455,928	July 14	1013	264	56	202
Bouquet-holder	R. A. Tyrral	456,745	July 28	2327	614	56	468
Boutonniere-holder.....	A. H. Overman	457,973	Aug. 18	1727	453	56	875
Bowl-handle.....	P. Lippert	459,933	Sept. 22	2208	554	56	1514
Bowl or wash-basin. Set.....	S. P. Crosswell	447,232	Feb. 24	2860	710	54	1092
Bowling-alley.....	J. Bruns	456,375	July 21	1712	453	56	343
Bowling-alley.....	M. von Oeyen, Sr.....	460,025	Sept. 22	2328	583	56	1537
Bowling-ball	S. S. Harman	447,011	Feb. 24	2452	611	54	1016
Box:							
See Artist's color-box. Hitching-box.							
Axle-box. Journal-box.							
Axle and journal Knockdown box.							
box. Letter-box.							
Ballot-box. Letter and newspaper box.							
Bearing-box. Locking-box.							
Berry-box. Locomotive sand-box.							
Butter-box. Mail-box.							
Call-box. Match-box.							
Car-lamp box. Metal box.							
Cartridge-box. Metallic box.							
Cash-box. Miter-box.							
Casting-box. Money-box.							
Cheese-box. Multiple call-box.							
Christmas-box. Music-box.							
Cigar sample-box. Paper box.							
Cigarette-box. Pill-box.							
Coal-box. Post-office box.							
Cock-box. Post-office lock-box.							
Coin-box. Ribbon-box.							
Compartment-box. Sand-box.							
Cut-off box. Sheet-metal box.							
Dice-box. Shipping and storage box.							
Display-box. Signal-box.							
Document-box. Specimen-box.							
Electric resistance-box. Street-washer box.							
Electric switch-box. Stuffing-box.							
Fare-box. Switch-box.							
File-box. Telephone-box.							
Fire-box. Telephone call-box.							
Fire-alarm box. Tobacco-box.							
Fire-alarm signal-box. Toll-box.							
Folding box. Tooth-powder box.							
Fuse-box. Toy money-box.							
	Veneer box.						
	Watch-movement box.						
Box.....	D. S. Clark	460,068	Sept. 22	2399	600	56	1549
Box.....	J. H. Hatridge.....	460,866	Oct. 6	508	129	57	100
Box.....	G. Meisle	453,844	June 9	1029	269	55	1352
Box-board machine.....	M. Garland	462,545	Nov. 3	510	124	57	648
Box-clamp	J. T. Scott	459,380	Sept. 8	1314	327	56	1329
Box-closure	E. A. Heath	444,954	Jan. 20	1592	406	54	326
Box-closure	J. C. Stanley and L. B. Wrightson	448,687	Mar. 24	2322	{ 581 582 }	54	1586
Box-corners. Machine for attaching stays to	F. H. Beach	447,225	Feb. 24	2841	{ 704 705 }	54	1089
Box-cover	F. A. Clark	459,391	Sept. 15	1337	335	56	1342
Box-fastener	F. A. Baier	462,658	Nov. 3	682	173	57	682
Box-fastener	W. Beck	449,811	Apr. 7	256	65	55	51
Box-fastener	W. Beck	461,091	Oct. 13	841	217	57	169
Box-fastener	O. J. F. Egelston	451,616	May 5	262	63	55	629
Box-fastener	T. L. Firestone	457,311	Aug. 4	615	162	56	647
Box-fastener	S. Gliksmou and A. Doeff	459,703	Sept. 15	1839	463	56	1437
Box-fastener	W. S. Grove	460,437	Sept. 29	2962	740	56	1665
Box-fastener	P. L. Kimball	457,741	Aug. 11	1331	346	56	793
Box-fastener	J. L. Matson	459,126	Sept. 8	918	221	56	1251
Box-fastener	J. E. Payton	458,857	Sept. 1	478	115	56	1157
Box-fastener	W. R. Schmidt	456,436	July 21	1810	479	56	361
Box-fastener	C. E. Speaker	453,516	June 2	531	136	55	1248
Box-fastener	J. C. Walker	463,347	Nov. 17	1796	470	57	914
Box for tooth-powder, &c.....	C. Sander	459,379	Sept. 8	1314	327	56	1329
Box frame and cover.....	W. F. Beasley	455,457	July 7	248	63	56	50
Box-jointing machine	M. D. Knowlton.....	447,955	Mar. 10	1122	{ 282 283 }	54	1338

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Box-lid fastener	H. H. Snow	460,834	Oct. 6	461	117	57	92
Box-lifter	F. P. Morrison	446,924	Feb. 24	2321	577	54	991
Box-lifter	E. Treasure	460,676	Oct. 6	251	62	57	50
Box-lining	A. Schilling	461,451	Oct. 20	1428	360	57	290
Box-loop	M. B. Elmer	460,527	Sept. 29	3118	780	56	1696
Box-making machine	J. F. Gilliland	463,861	Nov. 24	2621	682	57	1081
Box-making machine	G. W. Strong and G. A. Williams	455,242	June 30	3260	827	55	1798
Box-making machines. Cutting-die for	J. F. Gilliland	455,015	June 30	2877	731	55	1724
Box-pull	W. J. Evans and W. H. Kunert	462,541	Nov. 3	504	123	57	647
Box-strap	H. S. Brewington	451,365	Apr. 28	2681	664	55	544
Box-strap	S. C. Cary	450,753	Apr. 21	1706	413	55	349
Box stripping or surfacing machine	G. A. Williams	458,651	Sept. 1	165	38, 39	56	1097
Boxes for the transportation of bottles. Machine for the manufacture of	W. F. Thiemeier	448,465	Mar. 17	1959	{ 492 493 }	54	1509
Boxes. Machine for attaching stays to the corners of	F. H. Beach. (Reissue)	11,167	May 26	2845	714	55	1137
Boxes. Manufacture of hooped	H. H. Higham	449,413	Mar. 31	3501	{ 880 881 }	54	1816
Boxes or similar articles. Machine for making plaited	M. Vierengel	463,849	Nov. 24	2590	{ 674 675 }	57	1076
Boxes with metal clips. Machine for fastening corners of pasteboard	J. Weil	458,510	Aug. 25	2592	631	56	1045
Brace:							
See Awning-brace. Gate-brace.							
Back-brace. Railway-rail brace.							
Bag-frame brace. Ratchet-brace.							
Bed-brace. Shoulder-brace.							
Bedstead-brace. Sleigh-brace.							
Bit-brace. Telegraph-pole brace.							
Extensible brace. Vehicle-body brace.							
Folding-seat brace. Wagon-spring brace.							
Furniture-brace.							
Bracelet	C. Bachem	449,103	Mar. 31	2961	750	54	1718
Bracelet	J. F. Bowie and E. Stolpe	452,830	May 26	2233	561	55	1023
Bracelet	T. C. Hudson	448,617	Mar. 17	2199	551	54	1554
Bracelet	A. W. Magerhans	447,692	Mar. 3	668	166	54	1245
Bracelet	H. U. Wilson	462,917	Nov. 10	1111	289	57	775
Bracket:							
See Adjustable bracket. Lamp-bracket.							
Curtain-pole bracket. Scaffold-bracket.							
Easel-bracket. Shade-bracket.							
Electric-wire support bracket. Shade-roller bracket.							
Elevator-bracket. Shingling-bracket.							
Extension-bracket. Spring-holding bracket.							
Insulator-bracket. Stage-bracket.							
Invalid's bracket. Staging-bracket.							
Umbrella-bracket.							
Bracket	T. W. Bartholomew	453,536	June 2	562	143	55	1254
Bracket	G. R. Nafis	446,761	Feb. 17	2038	507	54	928
Bracket	C. Porter	449,134	Mar. 31	3016	763	54	1728
Bracket for adjustable shelving	T. F. Mark	460,782	Oct. 6	398	96	57	78
Braid-frame	J. Keleher	453,119	May 26	2710	683	55	1115
Braiding-machine	N. Lombard	458,398	Aug. 25	2415	{ 588 589 }	56	1012
Braiding-machine	N. Lombard	458,470	Aug. 25	2518	{ 612 613 }	56	1031
Braiding-machine	N. Lombard	458,471	Aug. 25	2523	{ 613 614 }	56	1031
Braiding-machine	J. Thomas	457,170	Aug. 4	362	93	56	602
Braiding-machine	J. Thomas	457,171	Aug. 4	365	93, 94	56	603
Braiding-machine	J. Tregurtha	447,262	Feb. 24	2901	{ 721 722 723 }	54	1102
Braiding-machine carrier	P. J. A. Fornander	447,108	Feb. 24	2618	650	54	1048
Braiding-machine take-up	P. J. A. Fornander	447,107	Feb. 24	2616	649	54	1047
Braiding machine. Tubular	H. W. Struss	450,684	Apr. 21	1616	388	55	332
Braiding machine. Tubular	H. W. Struss	458,644	Sept. 1	151	35, 36	56	1095
Braiding machine. Tubular	H. W. Struss	458,645	Sept. 1	152	36	56	1095
Braiding-machines. Carrier or racer for	H. Grossenbach and W. Panhorst	445,315	Jan. 27	2137	553	54	443
Brake:							
See Air-brake. Hemp-brake.							
Automatic brake. Locomotive-driver brake.							
Automatic pneumatic brake. Power-brake.							
Car-brake. Pressure-brake.							
Car girder-brake. Rail-brake.							
Carriage-brake. Railway-brake.							
Electric brake. Railway track-brake.							
Electric-motor brake. Sled-brake.							
Electromagnetic brake. Vehicle-brake.							
Elevator-brake. Velocipede-brake.							
Flax-brake. Wagon-brake.							
Wheel-brake.							
Brake	S. M. Beery	453,573	June 2	618	158	55	1264
Brake	A. Biedermann	459,624	Sept. 15	1719	{ 431 432 }	56	1413
Brake	D. Hull	452,272	May 12	1333	333	55	834
Brake-actuating device	R. T. Smith	446,935	Feb. 24	2340	581	54	994
Brake apparatus. Safety	J. H. von Hoechstatten	447,710	Mar. 3	690	171	54	1249
Brake-beam	J. P. Hilliard	466,078	Dec. 29	3331	850	57	1810
Brake-beam	J. Moore and J. Campbell	465,942	Dec. 29	3092	792	57	1763
Brake-beam	J. Pearce	444,150	Jan. 6	297	71	54	60
Brake-beam	W. A. Pungs	444,017	Jan. 6	52	15	54	13
Brake beam	H. B. Robischung	453,739	June 9	881	{ 228 229 }	55	1323

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Brake-beam	G. N. Sceets	448,929	Mar. 24	2694	679	54	1657
Brake-beam and shoe-head	C. T. Schoen and L. W. Newton	450,760	Apr. 21	1715	415	55	351
Brake-block	J. A. Jewell	448,720	Mar. 24	2380	597	54	1597
Brake-handle	P. M. Kling	464,100	Dec. 1	141	35	54	1164
Brake-head attachment	J. H. Nethercott	455,637	July 7	549	143	54	106
Brake lever and lock	J. L. Barker	447,600	Mar. 3	535	131	54	1218
Brake mechanism. Automatic	W. R. King	446,386	Feb. 10	1446	355 354	54	800
Brake-operating device	G. R. Rogers	464,724	Dec. 8	1116	277	57	1356
Brake-regulator. Automatic	F. Moore	455,902	July 14	973	254	56	195
Brake-shoe	P. S. Criswell	455,033	June 30	2910	740	55	1730
Brake-shoe	J. J. Davenport	448,940	Mar. 24	2712	684	54	1660
Brake-shoe	J. Player	446,570	Feb. 17	1747	430	54	872
Brake-shoe	C. W. Roepper	444,508	Jan. 13	837	217	54	175
Brake-shoe	A. S. Vogt	444,174	Jan. 6	323	78	54	66
Brake-shoe fastening	C. Feil	458,890	Sept. 1	541	131	56	1169
Brake-staffs. Pawl-and-ratchet mechanism for	C. H. Emerson and G. A. Emery	456,026	July 14	1166	305	56	229
Brakes. Automatic adjuster for	E. D. Eames	463,716	Nov. 24	2400	629	57	1039
Brakes. Slack-adjuster for	E. D. Eames	453,062	May 26	2617	661	55	1096
Braking trains	E. E. Ries	452,041	May 12	937	240 241	55	763
Bran-duster	J. McGill	461,388	Oct. 13	1325	334	57	264
Branding apparatus. Electric	W. Cannell	445,648	Feb. 3	208	55	54	553
Branding-iron	A. B. Bray	464,913	Dec. 8	1384	349	57	1408
Bread-board	A. S. E. Metcalf	457,052	Aug. 4	175	44	56	567
Bread-cutter	I. P. Dunham	456,268	July 21	1526	405	56	309
Bread-cutting machine	S. Mirfield	452,610	May 19	1885	474	55	946
Bread-knife	R. J. Christy	460,577	Oct. 6	228	57	57	46
Bread, meat, and vegetable slicer	S. Feir	460,715	Oct. 6	297	72	57	58
Bread-mixing stand	W. Wiesemann	458,878	Sept. 1	526	128	56	1165
Bread-pan	G. C. Britton	464,420	Dec. 1	637	157	57	1255
Bread-raising apparatus	W. Dawson	460,238	Sept. 29	2660	663	56	1608
Bread-raising cabinet	L. A. Agney	450,604	Apr. 21	1451	357	55	293
Bread-toasting device	C. V. Hulmes	465,666	Dec. 22	2663	679	57	1670
Breakwater and beach. Combined	W. L. Marshall	452,229	May 12	1267	319	55	822
Breast-slide	J. A. Macrae	460,442	Sept. 29	2967	742	56	1666
Breast-strap slide	J. N. Patterson	455,494	July 7	305	77	56	62
Breastpin and button-hook. Combined	A. Epple	465,468	Dec. 22	2330	598	57	1607
Brewing malt liquors	B. W. Valentin	449,503	Mar. 31	3638	.....	54	1842
Brick	R. Böhme	457,982	Aug. 18	1740	457	56	877
Brick and tile cutter. Automatic	D. Brown	464,848	Dec. 8	1291	324	57	1391
Brick and tile cutting machine	J. W. and G. H. Aregood	466,145	Dec. 29	3441	881	57	1831
Brick and tile cutting machine	J. Thompson	456,449	July 21	1827	483 484 485	56	365
Brick and tile cutting table	J. Thompson	453,054	May 26	2602	657 658	55	1094
Brick-drying apparatus	L. C. Turley and W. G. Beyerly	462,179	Oct. 27	2640	660	57	528
Brick-kiln	J. Dunnachie	462,036	Oct. 27	2423	601	57	487
Brick-kiln	J. E. Gamble	448,333	Mar. 17	1758	445	54	1471
Brick-kiln	T. Gamon	445,595	Feb. 3	119	30	54	534
Brick-kiln	W. P. Grath	455,039	June 30	2922	743 744	55	1733
Brick-kiln	W. P. Grath	463,601	Nov. 17	2203	581	57	994
Brick-kiln	W. L. Gregg	460,637	Oct. 6	168	42, 43	57	35
Brick-kiln	W. L. Gregg	462,215	Oct. 27	2703	680 681	57	539
Brick-kiln	J. B. Griswold	447,151	Feb. 24	2718	674	54	1064
Brick-kiln	H. H. Hillis	461,479	Oct. 20	1532	375	57	309
Brick-kiln	J. Neceasek	450,772	Apr. 21	1737	421	55	355
Brick-kiln	J. W. Penfield	465,288	Dec. 15	2040	521	57	1541
Brick-kiln	E. M. Pike and J. Castle	463,167	Nov. 17	1515	393 394 152	57	861
Brick-machine	J. Q. Adams	462,610	Nov. 3	612	153 531	57	669
Brick-machine	H. Aiken	459,878	Sept. 22	2118	532	56	1498
Brick-machine	A. Brooker	455,160	June 30	3131	795	55	1773
Brick-machine	H. B. Camp	455,540	July 7	388	100 101 102	56	76
Brick-machine	P. Foss	459,153	Sept. 8	958	232 233 158	56	1259
Brick-machine	S. B. Frank	447,675	Mar. 3	639	159	54	1239
Brick-machine	J. A. Frazier and W. A. Milam	447,949	Mar. 10	1112	279	54	1336
Brick-machine	C. V. Hemenway	446,064	Feb. 10	906	220 221 192	54	696
Brick-machine	J. H. Konefes	461,022	Oct. 13	744	193 512 513	57	152
Brick-machine	J. J. Kulage	452,710	May 19	2041	440 441	55	978
Brick-machine	A. F. Miller	459,642	Sept. 15	1752	441	56	1419
Brick-machine	J. P. Miller	451,714	May 5	411	100	55	657
Brick-machine	D. S. Plummer	452,648	May 19	1947	488	55	958
Brick-machine	F. L. H. Sims	457,381	Aug. 11	769	197 198 506	56	683
Brick machine. Hydraulic	C. Kimpleu	451,126	Apr. 28	2286	567 568 569	55	469
Brick-machine. Hydraulic	C. J. Le Roy	450,770	Apr. 21	1733	419 420	55	354

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Brick-machine. Steam	W. W. Wallace and R. C. Penfield.	465,301	Dec. 15	2060	{ 526 527 }	57	1545
Brick-machines. Connecting-rod for	W. H. Hall	448,231	Mar. 17	1565	400	54	1434
Brick-making machine.	B. C. White	455,374	July 7	115	32, 33	56	26
Brick. Manufacture of enameled.	W. A. Miksch	461,980	Oct. 27	2340		57	471
Brick-mold.	C. E. Simpson	459,313	Sept. 8	1197	291	56	1306
Brick mold and press	C. W. Raymond	455,951	July 14	1051	275	56	208
Brick-mold sander	A. Naylor	464,286	Dec. 1	446	107	57	1230
Brick or tile cutting machine	W. R. Cunningham	459,719	Sept. 15	1865	{ 468 469 }	56	1442
Brick or tile machine	J. Gorich, J. Ilg, and T. M. Cronin.	462,313	Nov. 3	155	39, 40	57	580
Brick or tile machine	J. C. Titus	450,201	Apr. 14	817	205	55	165
Brick or tile machines. Automatic wire-cleaner for	G. Kükenthal	448,053	Mar. 10	1285	{ 327 328 }	54	1369
Brick or tile machines. Cutting-table for	J. A. and F. E. Frey	446,338	Feb. 10	1379	337	54	786
Brick or tile machines. Die for	G. D. Herrold	449,854	Apr. 7	320	83	55	64
Brick or tile table	G. S. Tiffany	444,227	Jan. 6	404	100	54	80
Brick. Paving.	A. O. Jones	447,612	Mar. 3	555	137	54	1232
Brick-press	J. P. Alston	450,903	Apr. 21	1951	479	55	394
Brick-press	G. A. Blinn	463,246	Nov. 17	1633	{ 425 426 }	57	885
Brick-press	C. P. Oldham	445,732	Feb. 3	354	92	54	5-2
Brick re-presser. Pallet.	C. R. Swain	465,978	Dec. 29	3154	808	57	1775
Brick. Stratified	L. A. Steiger	451,626	May 5	281	68	55	632
Bricks, tiles, &c. Apparatus for molding patterns on hollow	R. M. Downie	444,628	Jan. 13	1008	{ 262 263 }	54	208
Brick-work. Coating compound for	G. L. Cross	448,179	Mar. 10	1468		54	1407
Brick-yard plant	T. J. Monk	445,939	Feb. 3	692	{ 168 169 }	54	648
Bricks and briquets. Machine for the manufacture of	N. Proctor, C. E. Fraser, H. M. Carter, and A. Middleton.	449,089	Mar. 24	2936	744	54	1704
Bricks. Composition for coating.	J. Miller	446,877	Feb. 24	2237		54	977
Bricks. Manufacture of.	E. L. Ransome	447,972	Mar. 10	1159		54	1344
Bridge	M. C. Frits	446,339	Feb. 10	1382	338	54	786
Bridge	W. W. Green	458,161	Aug. 25	2006	{ 519 520 }	56	936
Bridge	L. Pulliam	457,391	Aug. 4	575	{ 152 153 }	56	640
Bridge	E. W. Serrell	445,302	Jan. 27	2114	547	54	437
Bridge	E. Thomas	456,501	July 21	1906	{ 504 505 }	56	380
Bridge	W. B. Wise	447,222	Feb. 24	2238	704	54	1089
Bridge-gate	H. F. Barnadt	463,677	Nov. 24	2330	611	57	1026
Bridge-gate	H. E. Dewey	447,636	Mar. 3	590	146	54	1229
Bridge-gate	M. Grady	463,313	Nov. 17	1737	454	57	904
Bridge-gate	C. R. Hanson	457,275	Aug. 4	552	145	56	635
Bridge-gate	M. and J. Himmes	460,797	Oct. 6	414	{ 101 102 }	57	82
Bridge-gate	R. Lorang	455,669	July 7	599	157	56	116
Bridge-gate	C. Madsen	453,244	June 2	101	28	55	1167
Bridge-gate	H. H. Schlee, W. F. Bach, and T. Mooney	463,237	Nov. 17	1615	{ 421 422 }	57	881
Bridge-gate	A. J. Smith	463,393	Nov. 17	1881	490	57	931
Bridge-gate	J. C. Wallich	451,963	May 12	802	{ 203 204 }	55	738
Bridge gate. Automatic draw.	W. F. Miller	462,012	Oct. 27	2384	591	57	479
Bridge gate. Draw.	W. Krejci and B. Kapinos	445,117	Jan. 20	1828	{ 473 474 }	54	372
Bridge. Iron	J. Lounsberry	453,342	June 2	255	68	55	1196
Bridge. Ponton.	W. Flynn	464,962	Dec. 15	1473	371	57	1437
Bridge sill. Bow.	W. H. Murphy	459,301	Sept. 8	1180	287	56	1303
Bridge. Suspension.	E. E. Runyon	446,209	Feb. 10	1155	283	54	740
Bridge. Suspension.	A. W. Tucker	451,087	Apr. 28	2229	552	55	457
Bridge. Telescopic draw.	D. H. Andrews	452,630	May 19	1920	482	55	953
Bridge-wall. Tubular	J. R. Walsh	450,268	Apr. 14	932	231	55	185
Bridge. Wooden	B. F. Ferguson	460,856	Oct. 6	493	126	57	98
Bridges. Safety-guard for draw.	H. J. Rohlf	449,176	Mar. 31	3078	777	54	1739
Bridges. Sliding gate for draw.	W. I. Adams and A. Rotzel	449,022	Mar. 24	2833	719	54	1684
Bridge	H. G. Brent	444,085	Jan. 6	166	41	54	35
Bridge	O. von Briesen	463,962	Nov. 24	2774	719	57	1111
Bridge	L. Dannhauser	455,472	July 7	273	69, 70	56	55
Bridge	L. Dannhauser	455,480	July 7	286	73	56	58
Bridge	S. A. Nolen	457,364	Aug. 11	741	190	56	677
Bridge	H. Schmitz	453,943	June 9	1160	303	55	1377
Bridge attachment	J. W. Beam	460,840	Oct. 6	469	119	57	93
Bridge attachment	A. Chezem	444,048	Jan. 6	102	26	54	23
Bridge-bit	M. J. Daly	446,944	Feb. 24	2351	5-4	54	996
Bridge-bit	R. Emerson	444,629	Jan. 13	1010	263	54	208
Bridge-bit	J. R. McDonald	455,049	June 30	2938	748	55	1735
Bridge-bit	J. McKenney	453,414	June 2	378	97	55	1218
Bridge-bit	J. B. McNair	453,846	June 9	1031	269	55	1352
Bridge-bit attachment	A. Lobdell	449,163	Mar. 31	3054	772	54	1735
Bridge-bits. Making	T. E. Van Ness and R. C. W. Lewis	449,300	Mar. 31	3277	830	54	1775
Bridge-bits. Manufacture of	B. Turton	461,514	Oct. 20	1593	389	57	320
Brine. Purifying	C. G. Collins	459,236	Sept. 8	1020	264	56	1282
Briquets. Composition for combustible	H. M. Baker	446,505	Feb. 17	1653		54	853
Broiler. Vertical	J. Gibbons	457,316	Aug. 4	621	{ 163 164 }	56	649
Broiling apparatus	J. Gibbons	452,362	Aug. 25	2348	573	56	1000
Broiling device	M. A. Burriess	466,154	Dec. 29	3454	883	57	1833
Bromine and iodine. Obtaining	H. H. Wing	447,926	Mar. 10	1078	270	54	1329
Bromine compound	F. H. Fischedick and C. E. Koehling.	462,544	Nov. 3	509		57	648
Bromine. Extracting	H. H. Dow	460,370	Sept. 29	2875	{ 717 718 }	56	1648

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Bromine. Purifying.....	J. C. Kautz.....	461,681	Oct. 20	1851	459	57	368
Bronzing-machine.....	R. F. Emmerich and F. Vonderlehr.	464,754	Dec. 8	1159	{ 288 289	57	1364
Bronzing or other machines. Fly-delivery for.....	A. N. Buchanan.....	447,101	Feb. 24	2606	647	54	1045
Brooch or lace-pin safety attachment.....	W. Wattie.....	460,296	Sept. 29	2757	687	56	1626
Broom.....	C. W. Mansfield.....	463,448	Nov. 17	1952	509	57	946
Broom.....	J. M. Meador.....	449,550	Mar. 31	3707	931	54	1555
Broom.....	P. C. Newbaker.....	454,757	June 23	2396	614	55	1627
Broom.....	F. W. Ratcliffe.....	458,757	Sept. 1	318	77	56	1126
Broom.....	L. C. Richardson.....	454,792	June 23	2448	629	55	1637
Broom.....	T. J. Thorp.....	446,901	Feb. 24	2290	570	54	985
Broom-cleaning machine.....	C. P. Johnson.....	464,970	Dec. 15	1429	374	57	1440
Broom-corn. Compound for coloring.....	R. M. Donovan.....	444,229	Jan. 6	406	.....	54	80
Broom-crate and display-stand.....	F. Zan.....	450,858	Apr. 21	1888	462	55	382
Broom-head.....	W. H. Holbrook.....	459,468	Sept. 15	1455	366	56	1364
Broom-holder.....	H. W. Judevine.....	444,886	Jan. 20	1462	379	54	302
Broom-holder.....	J. H. Allison.....	444,998	Jan. 20	1651	423	54	339
Broom-holder.....	M. V. Bulla.....	458,332	Aug. 25	2301	562	56	991
Broom-holder.....	G. Townsend.....	449,982	Apr. 7	500	125	55	97
Broom-holder.....	E. M. Wright.....	461,252	Oct. 13	1099	280	57	219
Broom or brush. Steel-wire.....	S. H. Brand.....	454,607	June 23	2176	562	55	1584
Broom-press.....	C. W. Doe.....	464,094	Dec. 1	134	33	57	1162
Broom rack or holder.....	W. C. Jones.....	464,176	Dec. 1	254	62	57	1183
Broom-shield.....	F. Zan.....	450,859	Apr. 21	1889	462	55	382
Broom. Stable or street.....	A. T. Gerike.....	449,440	Mar. 31	3543	893	54	1824
Brooms, &c. Holder or rack for.....	D. Van.....	444,079	Jan. 6	157	39	54	34
Brush.....	H. Berry.....	462,790	Nov. 10	901	235	57	733
Brush.....	M. E. Bridgman.....	453,353	June 2	272	72	55	1199
Brush.....	E. F. Chumard.....	457,862	Aug. 18	1531	398	56	838
Brush.....	F. Consene.....	455,740	July 14	729	191	56	149
Brush.....	D. K. Ferguson.....	462,943	Nov. 10	1161	301	57	784
Brush.....	W. H. Gates and F. C. Welsh.....	450,668	Apr. 21	1595	383	55	328
Brush.....	L. D. Grant.....	464,647	Dec. 8	979	244	57	1332
Brush.....	L. E. Guffin and J. A. Petrie.....	454,521	June 23	2017	523	55	1556
Brush.....	R. W. Hardie.....	445,649	Feb. 3	209	56	54	554
Brush.....	A. Hitt.....	454,046	June 16	1302	339	55	1413
Brush.....	L. P. Mahler.....	445,005	Jan. 20	1660	425	54	340
Brush.....	D. N. Maxon.....	453,016	May 26	2540	643	55	1082
Brush.....	W. J. Owen.....	453,292	June 2	173	48	55	1180
Brush.....	R. Schulz.....	450,042	Apr. 7	580	{ 144 145 146	55	112
Brush.....	C. E. Thompson.....	464,641	Dec. 8	971	{ 241 242	57	1331
Brush.....	M. Young.....	447,996	Mar. 10	1196	303	54	1352
Brush.....	M. Young.....	449,344	Mar. 31	3370	849	54	1790
Brush and making the same.....	A. H. Wolcott.....	449,061	Mar. 24	2805	735	54	1696
Brush and making the same.....	A. H. Wolcott.....	450,090	Apr. 7	650	164	55	127
Brush and polisher. Nail.....	H. Weber.....	445,683	Feb. 3	281	75	54	568
Brush. Blacking.....	W. J. Scott.....	446,393	Feb. 10	1458	358	54	802
Brush. Blacking.....	W. J. Scott.....	456,911	July 28	2600	683	56	518
Brush. Blacking.....	R. L. Stevens.....	450,500	Apr. 14	1299	318	55	255
Brush burner. Vineyard.....	J. Porteous.....	466,256	Dec. 29	3608	924	57	1862
Brush. Cleaning and polishing.....	H. A. Webster.....	449,239	Mar. 31	3173	801	54	1757
Brush. Clothes.....	B. J. Dietz.....	461,604	Oct. 20	1724	422	57	345
Brush-drawing machine.....	W. Lewis.....	445,855	Feb. 3	567	138	54	622
Brush. Electric hair.....	A. Stanton.....	462,599	Nov. 3	597	147	57	666
Brush. Electrically-operated.....	F. A. Lehmann.....	459,232	Sept. 8	1062	258	56	1278
Brush. Flesh.....	W. Wilson.....	456,230	July 21	1470	391	56	298
Brush for lithographic stipple-work.....	G. Arnold.....	454,321	June 16	1707	445	55	1490
Brush-handle.....	M. B. Hinds.....	449,478	Mar. 31	3607	908	54	1836
Brush-handle. Adjustable.....	C. F. Myers.....	448,724	Mar. 24	2387	598	54	1598
Brush-holder.....	H. H. Blades.....	451,909	May 12	726	182	55	723
Brush. Laundry and scrubbing.....	C. A. Butt.....	448,602	Mar. 17	2175	542	54	1550
Brush-machine.....	M. Young.....	456,610	July 28	2093	{ 553 554 555	56	424
Brush-making machine.....	C. Gutmuths.....	450,863	Apr. 21	1893	{ 463 464	55	383
Brush-making machine.....	W. J. Owen.....	453,291	June 2	171	47	55	1180
Brush. Marking.....	A. M. Darrell.....	450,662	Apr. 21	1583	380	55	325
Brush or dip. Blacking.....	H. L. Nelms, Jr.....	453,021	May 26	2547	644	55	1083
Brush or swab for liquid blacking.....	G. S. Wolff.....	454,694	June 23	2305	591	55	1609
Brush. Reservoir.....	C. Miller.....	451,974	May 12	818	208	55	741
Brush. Rotary.....	W. H. Cloud.....	455,658	July 7	583	152	56	111
Brush. Rotary.....	O. Pederson.....	462,156	Oct. 27	2603	648	57	521
Brush. Rotary.....	R. Roy.....	445,083	Jan. 20	1775	457	54	362
Brush. Rotary.....	H. A. Webster.....	461,655	Oct. 20	1812	447	57	360
Brush. Rotary tooth.....	N. B. de Galantha.....	454,644	June 23	2234	574	55	1594
Brush. Scratch or matting.....	S. D. Engle.....	458,524	Aug. 25	2613	636	56	1049
Brush. Toilet.....	J. O. Nightingale.....	448,067	Mar. 10	1302	333	54	1373
Brush. Tooth.....	G. A. Bowman.....	461,661	Oct. 20	1821	450	57	362
Brush. Tooth.....	F. M. Osborn.....	457,007	Aug. 4	118	29	56	556
Brush. Traveling.....	H. Seck.....	466,189	Dec. 29	3506	896	57	1843
Brush. Whitewash.....	J. W. Oram.....	448,667	Mar. 24	2290	574	54	1579
Brushes, &c., at angles. Device for holding.....	P. Helmond.....	452,375	May 19	1509	374	55	877
Brushes. Device for holding tooth or nail.....	J. E. Keefe.....	452,584	Sept. 15	1643	411	56	1400
Brushes. Machine for the manufacture of.....	L. Strickel.....	452,468	May 19	1674	{ 420 421 422	55	906
Brushes. Making.....	M. C. Paukey.....	451,294	Apr. 28	2584	637	55	526
Buckboard-spring.....	W. H. Sparks.....	446,395	Feb. 10	1462	{ 359 360	54	803
Bucket.....	R. T. Crawford.....	450,720	Apr. 21	1664	401	55	340
Bucket cover. Sugar.....	H. H. Reyner.....	417,082	Feb. 24	2582	640	54	1040
Bucket-doors. Latch for.....	W. J. Spronle.....	465,002	Dec. 15	1566	398	57	1454
Bucket. Folding or collapsible feed.....	H. C. Barrett.....	459,388	Sept. 15	1332	334	56	1341

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Bucket-suspending frame	F. Schillinger	445,719	Feb. 3	334	88	54	578
Buckets. Soap-dish and brush-holder for scrub	C. A. Inglis	450,462	Apr. 14	1240	303	55	243
Buckets. Vent for	J. S. Alexander	458,883	Sept. 1	531	129	56	1166
Buckle	G. E. Adams	457,895	Aug. 18	1590	414	56	848
Buckle	C. C. Benedict	461,009	Oct. 13	724	186	57	148
Buckle	C. G. Blue	453,541	June 2	569	145	55	1255
Buckle	G. W. Bussey	460,846	Oct. 6	477	122	57	95
Buckle	L. R. Chazal	446,629	Feb. 17	1828	452	54	887
Buckle	J. W. Cronan	452,692	May 19	2016	505	55	972
Buckle	D. L. Durand	451,758	May 5	487	120	55	670
Buckle	L. Dyer	462,939	Nov. 10	1156	300	57	783
Buckle	C. H. Farmer	445,806	Feb. 3	501	120	54	609
Buckle	J. M. Guilbert	456,488	July 21	1890	500	56	377
Buckle	S. E. Harsh	447,874	Mar. 10	991	250	54	1312
Buckle	R. G. Henry	447,070	Feb. 24	2565	637	54	1036
Buckle	J. C. and A. M. Hyde	454,170	June 16	1485	390	55	1447
Buckle	V. S. Keppel	462,670	Nov. 3	695	176	57	685
Buckle	S. H. Mannors	460,379	Sept. 29	2887	721	56	1651
Buckle	C. A. Minehart	464,885	Dec. 8	1348	339	57	1402
Buckle	J. F. Molloy	459,206	Sept. 8	1037	253	56	1273
Buckle	E. J. Neville	454,756	June 23	2395	614	55	1627
Buckle	J. Parker	460,721	Oct. 6	306	75	57	60
Buckle	G. B. Pilkington	451,840	May 5	597	148	55	693
Buckle	W. T. Schenck	458,239	Aug. 25	2135	523	56	960
Buckle	S. Scheuer	448,803	Mar. 24	2507	628	54	1621
Buckle	C. C. Shelby	455,642	July 7	556	144	56	108
Buckle	A. D. Smith	451,281	Apr. 28	2566	632	55	522
Buckle	D. L. Smith	450,432	Apr. 14	1200	293	55	236
Buckle	W. E. Smith	450,110	Apr. 7	683	173	55	134
Buckle	A. E. Winlow	462,755	Nov. 10	841	221	57	792
Buckle and snap-hook. Combined	M. M. Green	457,614	Aug. 11	1132	289	56	753
Buckle-connection	A. Biesen	445,491	Jan. 27	2388	621	54	491
Buckle-fastener	F. A. Blackburn	463,476	Nov. 17	1997	522	57	955
Buckle for securing straps	T. Brandt	448,496	Mar. 17	2010	503	54	1518
Buckle. Harness	W. R. Bruner	463,774	Nov. 24	2477	647	57	1054
Buckle. Harness	M. Huffman	447,244	Feb. 24	2878	714	54	1096
Buckle. Hitching	J. E. Mick	450,674	Apr. 21	1602	385	55	329
Buckle. Shoe	H. A. Closser, G. A. Billings, G. Thomson, and J. F. Knuth.	454,853	June 30	2560	659	55	1664
Buckle. Shoe	J. H. Smith	462,779	Nov. 10	883	232	57	730
Buckle. Suspender	J. T. Brodnax	455,157	June 30	3128	794	55	1772
Buckle. Suspender	M. Gintzburg	462,547	Nov. 3	514	125	57	649
Buckle. Suspender	C. R. Harris	452,374	May 19	1507	373	55	877
Buckle. Suspender	C. R. Harris	453,113	May 26	2704	681	55	1114
Buckle. Suspender	D. Lippy	449,683	Apr. 7	53	13	55	12
Buckle. Suspender	G. B. Pilkington	462,914	Nov. 10	1107	288	57	774
Buckle. Suspender	F. H. Richards	456,523	July 21	1949	513	56	368
Buckle. Suspender	C. Schwartz	449,951	Apr. 7	454	114	55	89
Buckle. Suspender	D. L. Smith	462,457	Nov. 3	378	93	57	622
Buckle. Suspender	D. L. Smith	463,374	Nov. 17	1843	482	57	925
Buckle. Suspender	J. A. Traut	446,543	Feb. 17	1707	419	54	864
Buckle. Suspender	J. A. Traut	446,721	Feb. 17	1978	493	54	916
Buckle. Suspender	J. A. Traut	446,722	Feb. 17	1979	493	54	916
Buckle. Suspender	J. A. Traut	447,924	Mar. 10	1074	269	54	1328
Buckles. Making suspender.	J. A. Traut	452,880	May 26	2319	585	55	1038
Buckles. Spring attachment for	C. B. Underhill	449,015	Mar. 24	2824	715	54	1682
Buggy-body	N. Kastler	444,070	Jan. 6	143	36	54	31
Buggy-gear	D. G. Wyeth	461,971	Oct. 27	2328	577	57	468
Buggy-heater	E. Richards	457,214	Aug. 4	444	116	56	616
Buggy-top	W. W. Whitaker and W. A. Hoke	455,433	July 7	218	56	56	44
Buggy-tops. Bow-socket for	J. C. Coss	445,046	Jan. 20	1725	444	54	353
Buggy-wrench	E. Nighswander	445,431	Jan. 27	2306	598	54	476
Buggies. Hanger for bodies of	C. S. Schelleng	464,320	Dec. 1	497	119	57	1229
Building	J. J. Schillinger	453,510	June 2	525	135	55	1247
Building and water-tower. Combined	W. F. Smith	446,897	Feb. 24	2275	566	54	983
Building appliance	M. F. McCarthy	460,213	Sept. 29	2626	656	56	1601
Building-block	J. Cook	460,177	Sept. 29	2573	642	56	1591
Building. Fire-proof	M. F. McCarthy	455,687	July 7	626	165	56	122
Building. Fire-proof	F. P. Meyenberg	460,210	Sept. 29	2623	655	56	1600
Building. Fire-proof	W. Orr	456,202	July 21	1419	376	56	289
Building-front	B. T. Mesker and T. O. Arbegust	460,478	Sept. 29	3029	758	56	1677
Building material	J. O. Rollins	463,649	Nov. 24	2293	602	57	1019
Building material. Fire-proof	J. Eastman	457,984	Aug. 18	1743	458	56	877
Building. Portable	L. D. Jones	449,025	Apr. 7	559	139	55	108
Buildings. Construction of	L. A. Beardsley	458,700	Sept. 1	237	56	56	1111
Buildings. Construction of	R. Guastavino	461,562	Dec. 8	851	210	57	1306
Buildings. Construction of	P. H. Jackson	449,323	Mar. 31	3333	841	54	1784
Buildings. Construction of	E. V. Johnson	456,309	July 21	1594	421	56	321
Buildings. Construction of fire-proof	E. V. Johnson	448,048	Mar. 10	1277	326	54	1367
Buildings. Fire-proof construction of	W. Orr	462,773	Nov. 10	873	229	57	728
Buildings. Floor-arch for fire-proof	J. Eastman	457,985	Aug. 18	1745	458	56	878
Buildings. Foundation or inclosure for	R. L. Harris	464,771	Dec. 8	1185	294	57	1369
Bulkhead	G. J. Cook	459,973	Sept. 22	2258	567	56	1523
Bullet-mold	J. H. Barlow	446,178	Feb. 10	1107	271	54	731
Bullet. Patched	L. Marble	463,840	Nov. 24	2513	670	57	1073
Bullet-sizer	J. H. Barlow	464,311	Dec. 1	485	116	57	1227
Bullet. Steel-capped	A. Kanderer	450,623	Apr. 21	1485	364	55	299
Bullets. Manufacturing	A. Weed	444,474	Jan. 13	773	201	54	162
Bullion-sampler	E. G. Knoepfel and H. Miller	464,252	Dec. 1	389	93	57	1208
Bunn-extractor	J. Baemle	452,560	May 19	1810	455	55	931

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Bung-holes. Bush for	W. Kromer	466,171	Dec. 29	3479	889	57	1838
Bung. Metallic self-venting	C. L. Kline	464,974	Dec. 15	1495	375	57	1441
Bung-wrench	J. Smith	450,381	Apr. 14	1124	275	55	221
Bunk. Car	L. T. Goodwin and J. A. Hunter	461,572	Oct. 20	1678	411	57	337
Bunker-cover fastener	J. S. Farlow	458,525	Aug. 25	2615	636	56	1050
Buoy	L. Humbert	462,487	Nov. 3	419	102	57	630
Buoy. Bell	J. Gibson	448,222	Mar. 17	1553	{ 396 397 }	54	1431
Buoy. Bell	J. Gibson	455,746	July 14	739	194	56	151
Buoy or fog-signal	H. E. Hodgson	460,136	Sept. 29	2517	627	56	1579
Bureau and commode	W. H. Merritt and J. F. Taylor	455,883	July 14	949	248	56	191
Burette-clamp	W. H. Chaddock	462,032	Oct. 27	2417	599	57	485
Burglar-alarm	C. R. Canterbury	450,282	Apr. 14	962	{ 237 237 }	55	190
Burglar-alarm	C. Guelich	464,865	Dec. 8	1316	329	57	1396
Burglar-alarm	L. K. Johnson	458,397	Aug. 25	2414	567	56	1012
Burglar-alarm	H. T. Wilson	459,984	Sept. 22	2371	570	56	1525
Burglar-alarm and door-bell. Automatic	G. F. Kierson and A. K. Young	448,051	Mar. 10	1281	327	54	1368
Burglar-alarm. Portable	C. C. Davis	452,597	May 19	1867	469	55	943
Burglar-alarm. Portable	C. C. Davis	454,033	June 16	1287	336	55	1409
Burglar-alarms. Circuit-closer for	E. A. Darling	453,466	June 2	460	118	55	1235
Burglar-alarms. Circuit-closer for	D. A. Palmer	455,005	June 30	2867	{ 728 729 }	55	1722
Burglar-alarms. Electric circuit-closer for	W. C. Thompson	465,602	Dec. 22	2563	652	57	1651
Burglar or animal trap	W. F. McCready	463,537	Nov. 17	2026	549	57	971
Burial apparatus	N. Brickell	445,875	Feb. 3	594	146	54	628
Burial apparatus	C. M. Chamblin	454,331	June 16	1719	449	55	1493
Burial apparatus	M. C. Scherer	451,173	Apr. 28	2368	{ 588 589 }	55	485
Burial-case	W. W. Butler	447,662	Mar. 3	622	154	54	1235
Burial-casket	G. Marqua	452,228	May 12	1266	319	55	822
Burial-casket	M. C. Williams	453,684	June 9	800	205	55	1308
Burial-casket lid	A. Freshl	458,527	Aug. 25	2616	637	56	1050
Burial-casket lid	L. K. Smedes	456,442	July 21	1818	481	56	363
Burial-vault	G. C. Wyatt and J. K. Williamson	459,985	Sept. 22	2273	571	56	1526
Burner:							
See Brush-burner. Injector-burner.							
Crucible burner. Kerosene-burner.							
Fuel-burner. Lamp-burner.							
Gas-burner. Oil-burner.							
Gas or hydrocarbon-vapor burner. Oil or gas burner.							
Gas or oil burner. Paint-burner.							
Gasoline-burner. Petroleum-burner.							
Hydrocarbon-burner. Straw-burner.							
Incandescent burner. Vapor-burner.							
Incandescent burner. Vapor or oil burner.							
Burner	J. Gibbons	462,922	Nov. 10	1130	292	57	778
Burner	J. J. Robinson	448,080	Mar. 10	1319	338	54	1377
Burnisher	S. O. Tuerk	449,391	Mar. 31	3455	869	54	1806
Burnishing-machine	C. Keck	454,480	June 23	1953	509	55	1545
Burnishing-machine	C. W. Miller	446,923	Feb. 24	2319	576	54	991
Bust and garment supporter. Combined	V. E. Harvey	463,050	Nov. 10	1310	339	57	814
Bustle	W. Townsend	457,172	Aug. 4	368	94	56	603
Butter-box	W. E. Dow	462,241	Nov. 3	32	7	57	558
Butter-case	W. R. Tipton	459,464	Sept. 15	1450	365	56	1363
Butter-cutter	C. N. Shaw	458,195	Aug. 25	2058	533	56	945
Butter-extractor. Centrifugal	C. A. Johansson. (Reissue)	11,183	Aug. 4	677	175	56	658
Butter-extractor. Centrifugal	A. Wablin	450,391	Apr. 14	1134	277	55	223
Butter-firkin	C. A. Rittenhouse	460,033	Sept. 22	2338	586	56	1539
Butter from unskimmed milk or cream and apparatus for carrying out the same. Separating	E. G. N. Salenius	448,373	Mar. 17	1815	458	54	1482
Butter-jar	J. W. Kennedy and B. L. Harris	449,326	Mar. 31	3337	842	54	1784
Butter-lifter	W. S. Bailey and W. M. Stevenson	447,256	Mar. 3	3	1	54	1119
Butter-lifter	J. B. Doolittle	452,044	May 12	950	242	55	765
Butter-making machine	O. Andersson	456,529	July 21	1958	515	56	390
Butter. Manufacturing	G. H. Hamrick	450,459	Apr. 14	1235	.....	55	242
Butter molding and measuring machine	J. Woolridge	461,559	Oct. 20	1659	406	57	333
Butter-molds and vinegar-measures out of wood. Machine for manufacturing	F. K. Winsor	455,862	July 14	913	239	56	184
Butter-package	R. A. Kneeland	443,998	Jan. 6	20	5	54	7
Butter-printer	C. M. Buckingham	460,943	Oct. 13	630	163	57	130
Butter-tub	G. Smith	450,261	Apr. 14	924	229	55	184
Butter-tub lining	J. Mersman	453,495	June 2	504	129	55	1243
Butter-worker	H. J. Anderson	444,270	Jan. 6	461	{ 117 118 }	54	91
Butter-worker	D. W. Curtis	456,248	July 21	1498	398	56	303
Butter-worker	E. J. Fargo	461,936	Oct. 27	2279	564	57	459
Butter-worker	T. Muir	447,157	Feb. 24	2732	676	54	1067
Butter-worker	S. H. Waters	457,413	Aug. 11	916	210	56	692
Butter-workers. Cooler for	E. D. Wilcox	451,352	Apr. 28	2665	660	55	541
Button	J. D. Brainard	458,094	Aug. 18	1903	493	56	910
Button	J. N. Butler and R. N. Stockton	456,475	July 21	1868	493	56	372
Button	E. N. Chapman	451,025	Apr. 28	2151	531	55	441
Button	G. Cook	464,149	Dec. 1	213	50	57	1177
Button	J. M. Crews	455,908	July 14	984	256	56	197
Button	J. N. Gotendorf, Jr.	454,266	June 16	1625	426	55	1475
Button	F. E. Hall	445,523	Jan. 27	2439	635	54	500
Button	F. E. Hall	450,069	Apr. 7	618	158	55	120
Button	F. F. Heilborn	448,428	Mar. 17	1904	478	54	1499
Button	J. Hinner	456,272	July 21	1530	406	56	310
Button	T. R. Hyde, Jr.	452,572	May 19	1828	459	55	924
Button	T. R. Hyde, Jr.	465,271	Dec. 15	2015	515	57	1537
Button	W. E. Jackson	452,045	May 12	351	242	55	765

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Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.	
				Spec.	Dr.'s	Vol.	Page.
Button	W. E. Jackson	465,061	Dec. 15	1664	423	57	1471
Button	A. Mandel	447,782	Mar. 10	827	206	54	1291
Button	J. Mathison	457,970	Aug. 18	1724	452	56	874
Button	T. Morton and W. Pearce	462,362	Nov. 3	233	57	57	595
Button, &c.	W. F. and J. Niles	453,064	May 26	2620	661	55	1097
Button	C. M. Platt	464,988	Dec. 15	1535	387	57	1447
Button	V. N. Savale	461,644	Oct. 20	1794	442	57	357
Button	A. J. Shipley	465,680	Dec. 22	2682	684	57	1674
Button	F. R. White	459,483	Sept. 15	1481	372	56	1369
Button	F. E. Williams	450,273	Apr. 14	939	233	55	187
Button	F. E. Williams	453,570	June 2	612	157	55	1263
Button	F. E. Williams	453,974	June 9	1198	313	55	1385
Button	F. E. Williams	456,246	July 21	1495	397	56	302
Button	T. J. Winans	458,512	Aug. 25	2595	632	56	1046
Button-attaching machine	I. F. Peck	453,588	June 2	641	163	55	1269
Button-clasp	C. La Dow	449,940	Apr. 7	441	110	55	86
Button-clasp	F. X. Lamboley and A. Jacobson	462,143	Oct. 27	2588	644	57	517
Button-cutting apparatus. Pearl-	J. Cléret	450,057	Apr. 7	602	150	55	116
Button-fastener	T. R. Hyde, Jr.	452,138	May 12	1122	285	55	793
Button-fastener	C. La Dow	451,419	Apr. 28	2762	653	55	559
Button-fastener	G. Pendleton, Jr.	453,656	June 9	755	195	55	1298
Button-fastener	G. W. Prentice	451,070	Apr. 28	2208	546	55	452
Button-fastener	H. S. Rockwood	449,648	Mar. 31	3881	971	54	1887
Button-fastener	J. F. Thayer	451,083	Apr. 28	2224	550	55	456
Button-fastener	J. H. Vinton	446,089	Feb. 10	946	232	54	703
Button-fastener	R. H. Wheeler	462,023	Oct. 27	2402	596	57	483
Button-fastening device	M. A. Northrup	458,110	Aug. 18	1925	500	56	914
Button-feeding device	M. F. Taintor and W. T. Mather	461,649	Oct. 20	1799	443	57	358
Button-flies. Machine for cutting	P. B. Clark	462,205	Oct. 27	2685	676	57	536
Button. Hinged	P. Rodier	451,954	May 12	788	200	55	735
Button-hole-barring machine	H. P. Feister	451,000	Apr. 21	2107	520	55	424
Button-hole cutter	E. J. Toof	446,484	Feb. 17	1617	396	54	846
Button-hole cutting and stitching machine	J. A. Osterhout	447,791	Mar. 10	843	211	54	1285
Button-hole piece	A. Shea	463,344	Nov. 17	1792	469	57	914
Button. Loop	G. Heuser	450,510	Apr. 14	1312	322	55	259
Button-machine	H. Zündorf	448,569	Mar. 17	2113	529	54	1539
Button-machine die	L. Prange	450,893	Apr. 21	1938	475	55	391
Button-machine mechanism	C. S. Gooding and V. Beauregard	459,375	Sept. 8	1297	321	56	1326
Button-machines. Eye-forming mechanism for	C. S. Gooding and R. L. Ellery	459,372	Sept. 8	1291	318	56	1325
Button-machines. Eye-forming mechanism for	C. S. Gooding and R. L. Ellery	459,373	Sept. 8	1293	319	56	1325
Button-making machine	G. Heuser	466,304	Dec. 29	3685	941	57	1876
Button or stud	J. E. Hills	453,273	June 2	146	41	55	1176
Button or stud	F. E. Williams	462,831	Nov. 10	973	252	57	748
Button or stud. Cnff.	S. C. Scott	457,034	Aug. 4	153	37	56	563
Button-piercing machine. Pearl-	J. Cléret	450,056	Apr. 7	601	150	55	116
Button. Separable	R. H. Lewis	447,249	Feb. 24	2885	716	54	1098
Button. Separable	E. Pringle	447,346	Mar. 3	108	29	54	1138
Button. Separable	E. Pringle	447,347	Mar. 3	110	30	54	1139
Button. Separable	E. Pringle	447,348	Mar. 3	112	30	54	1139
Button. Separable	E. Pringle	447,349	Mar. 3	114	30	54	1139
Button. Separable	W. F. Whiting	447,855	Mar. 10	958	240	54	1306
Button-setting instrument	J. F. Thayer	459,480	Sept. 15	1474	370	56	1368
Button-setting machine	C. H. Eggleston and J. C. Welles	463,292	Nov. 17	1699	444	57	897
Button-setting machine	W. M. Gerkey	457,268	Aug. 4	541	141	56	633
Button-setting machine	T. W. Porter and J. B. Glover	464,143	Dec. 1	203	48, 49	57	1175
Button-setting machine	T. H. Traver	448,696	Mar. 24	2332	585	54	1588
Button-setting machine	J. H. Vinton	459,481	Sept. 15	1476	371	56	1368
Button-setting machine	J. H. Vinton	459,482	Sept. 15	1479	371	56	1369
Button-setting machine	R. H. Wheeler	455,553	July 7	411	109	56	80
Button-setting tool	J. F. Thayer	445,304	Jan. 27	2117	548	54	437
Button-strip	D. H. Warner	453,381	June 2	309	81	55	1205
Button-trimming machine	J. Naylor	448,848	Mar. 24	2576	646	54	1634
Buttons. Attaching	J. Mathison	457,738	Aug. 11	1328	345	56	793
Buttons. Card for	C. Mackie	465,793	Dec. 22	2841	728	57	1706
Buttons. Die for use in making shank-	R. L. Ellery	459,359	Sept. 8	1275	314	56	1321
Buttons from horn, &c. Method of and apparatus for the manufacture of	G. Ponzio and D. Robbiati	465,884	Dec. 29	3005	767	57	1746
Buttons. Machine for the manufacture of pearl	J. Cléret	450,095	Apr. 7	655	165	55	128
Buttons. Manufacture of collar	W. Bourke	453,253	June 2	115	31	55	1170
Buttons. Mechanism for operating dies for machines for making shoe	C. S. Gooding and R. L. Ellery	459,371	Sept. 8	1289	318	56	1324
Buttons. Method of and machine for making	C. S. Gooding and R. L. Ellery	459,376	Sept. 8	1299	322	56	1327
Buttons to materials. Securing shank-	W. E. Bennett	456,926	July 28	2629	689	56	524
Buttuner	A. S. Douglas	457,475	Aug. 11	914	234	56	709
Buttuner. Shoe	A. S. Hicks	459,612	Sept. 15	1692	424	56	1408
Cabinet	W. A. Dunn	453,883	June 9	1079	281	55	1360
Cabinet for holding time-cards, &c	U. M. White	450,271	Apr. 14	936	232	55	186
Cabinet. Office	J. W. See	450,196	Apr. 14	803	203	55	163
Cabinet. Portable	A. M. Bugbee	455,162	June 30	3134	796	55	1773

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &.	Vol.	Page.
Cabinet. Show.....	R. E. Sherlock and M. Freeman	454,775	June 23	2422	622	55	1632
Cabinet. Suspended rotary.....	D. F. and P. A. Saum.....	458,071	Aug. 18	1868	487	56	902
Cable-clamping device.....	G. W. Rowley.....	453,378	June 2	305	80	55	1204
Cable-conduit covering.....	H. Hughes.....	462,135	Oct. 27	2573	640	57	515
Cable-crossing.....	J. Dunott.....	460,921	Oct. 6	587	149	57	115
Cable-crossing apparatus.....	E. Werner.....	449,985	Apr. 7	504	126	55	98
Cable-covering machine.....	J. D. Bishop.....	450,131	Apr. 14	717	180	55	146
Cable-covering press.....	C. H. Matchett.....	450,175	Apr. 14	775	196	55	157
Cable-feed works.....	M. A. Reck.....	457,415	Aug. 11	820	210	56	693
Cable-filling. Composition of matter for.....	E. G. Wright.....	446,502	Feb. 17	1650	.....	54	852
Cable-grip.....	J. J. Graff.....	451,857	May 5	621	154	55	697
Cable-grip.....	C. Hazard.....	448,035	Mar. 10	1255	320	54	1363
Cable-grip.....	L. Kannenstine.....	464,878	Dec. 8	1337	335	57	1400
Cable-grip.....	J. H. Masters.....	452,077	May 12	1019	257	55	775
Cable-grip.....	J. H. Masters.....	452,078	May 12	1021	258	55	775
Cable-grip.....	E. Schalk.....	449,139	Mar. 31	3022	764	54	1798
Cable-grip attachment.....	A. O. Warner.....	459,073	Sept. 8	825	200	56	1233
Cable-grips. Automatic release for.....	A. D. and F. W. Smith.....	458,432	Aug. 25	2463	599	56	1021
Cable-grips. Link for.....	V. T. Lynch.....	448,973	Mar. 24	2762	697	54	1870
Cable-gripper.....	G. S. Duncan.....	462,378	Nov. 3	257	63, 64	57	600
Cable-gripping mechanism.....	J. B. Stetson, J. Hammond, W. L. Hohn, and J. W. Harris.....	453,517	June 2	532	137	55	1248
Cable-lifter.....	R. McCulloch and J. Volk.....	460,484	Sept. 29	3036	761	56	1679
Cable-lifter. Automatic.....	J. B. French.....	446,337	Feb. 10	1378	336	54	785
Cable-power.....	J. Rouik.....	457,842	Aug. 18	1496	389	56	832
Cable roads. Gripping-machine for.....	F. W. Wood and J. Fowler.....	448,287	Mar. 17	1674	424	54	1455
Cables. Machine for laying in the strands of wire.....	T. F. Borman.....	458,072	Sept. 1	195	46	56	1102
Cables. Pick-up and throw-off mechanism for.....	G. Muller.....	465,191	Dec. 15	1885	478	57	1512
Cables. Splicing.....	J. Thompson.....	460,407	Sept. 29	2921	730	56	1657
Caddy and scoop. Base-delivery.....	H. F. Willson.....	465,090	Dec. 15	1717	437	57	1481
Cage-perch.....	A. C. Goe.....	447,769	Mar. 10	803	199	54	1277
Cake-beater.....	G. T. Hunt.....	455,565	July 7	431	115	56	83
Cake-press.....	F. M. Leavitt.....	456,656	July 28	2167	574 } 575 }	56	439
Cake-turner.....	R. W. Stephens.....	450,536	Apr. 14	1342	320	55	264
Cakes, &c. Treating.....	J. H. Mitchell.....	447,966	Mar. 10	1144	289	54	1341
Calceimine. Compound for.....	G. A. Casselman.....	444,776	Jan. 13	1249	.....	54	252
Calceimining or removing calceimine. Machine for.....	H. T. Dunne.....	459,486	Sept. 15	1485	373	56	1370
Calcined material. Cooling apparatus for.....	A. B. Bonneville.....	455,491	July 7	302	77	56	61
Calcium-light apparatus.....	G. R. Prowse.....	463,870	Nov. 24	2636	687 } 688 } 603 }	57	1084
Calculating-machine.....	H. C. Hart.....	445,447	Jan. 27	2324	604 }	54	480
Calculator. Interest.....	B. F. Hull.....	444,396	Jan. 6	647	168	54	127
Calendar.....	O. C. Blackner.....	445,745	Feb. 3	379	97	54	588
Calendar.....	L. Brainard.....	451,800	May 5	543	134	55	682
Calendar.....	J. Cnssons.....	462,627	Nov. 3	637	161	57	674
Calendar.....	H. Fitch.....	458,970	Sept. 1	656	160	56	1193
Calendar.....	J. M. W. Hicks.....	457,717	Aug. 11	1281	331 } 332 }	56	781
Calendar.....	C. C. Kelly.....	449,543	Mar. 31	3697	929	54	1853
Calendar.....	G. H. McKee.....	463,070	Nov. 10	1347	949	57	821
Calendar.....	E. L. Pease.....	462,450	Nov. 3	366	91	57	620
Calendar.....	H. S. Prentiss.....	458,490	Aug. 25	2557	623	56	1038
Calendar.....	D. Ross.....	465,294	Dec. 15	2049	523 } 524 }	57	1543
Calendar.....	J. D. Watters.....	447,171	Feb. 24	2749	680	54	1070
Calendar.....	N. A. Wheeler.....	445,484	Jan. 27	2379	619	54	489
Calendar and time-card. Combined perpetual.....	C. M. Hamilton.....	446,916	Feb. 24	2313	574	54	990
Calendar and watch trinket or charm. Combined perpetual.....	E. A. Cresson.....	452,450	May 19	1634	408	55	900
Calendar. Discount and interest.....	W. R. Will.....	447,856	Mar. 10	959	240 } 241 }	54	1306
Calendar for time-pieces.....	D. E. Grant.....	451,042	Apr. 28	2172	537	55	445
Calendar. Mechanical desk or table.....	R. Beigel.....	450,821	Apr. 21	1828	443	55	371
Calendar. Order-pad.....	W. H. Haworth.....	444,150	Jan. 6	281	67	54	58
Calendar. Perpetual.....	D. A. Fisher.....	463,678	Nov. 24	2332	612	57	1027
Calendar. Perpetual.....	A. Hadlock.....	448,796	Mar. 24	2497	625	54	1619
Calendar. Perpetual.....	W. W. Kitchen.....	464,372	Dec. 1	572	140	57	1243
Calendar-roll leader.....	R. McAlpine.....	449,353	Mar. 31	3384	852	54	1792
Caliper-joint.....	W. L. Morris.....	458,684	Sept. 1	216	50	56	1107
Calipers.....	J. H. Dyson.....	454,569	June 23	2091	539	55	1570
Calipers.....	R. Yanda.....	447,805	Mar. 10	877	218	54	1291
Calipers and dividers.....	N. Marsb.....	449,165	Mar. 31	3058	774	54	1735
Calipers. Micrometer.....	J. D. Sloane.....	455,644	July 7	559	145	56	108
Calk. Driving.....	M. E. Reilly.....	452,284	May 12	1351	336	55	837
Call and signal. Station.....	A. A. Weaver and J. W. Brooks.....	449,505	Mar. 31	3640	916	54	1843
Call-box.....	E. R. Wilder.....	462,785	Nov. 10	891	234	57	732
Call-boxes. Central-station apparatus for.....	E. R. Wilder.....	460,767	Oct. 6	369	91	57	72
Call system.....	L. Digeon.....	448,322	Mar. 17	1735	439	54	1467
Calves. Tool for dehorning.....	C. T. Ingraham.....	447,611	Mar. 3	554	137	54	1221
Cam or gear and blank therefor.....	F. F. Raymond, 2d.....	464,165	Dec. 1	238	59	57	1181
Camera.....							
See Automatic camera. Photographic camera.....							
Enlarging-camera. Solar reflecting-camera.....							
Magazine-camera. Solar camera.....							
Multiplying-camera.....							
Camera.....	T. H. Blair and J. H. Crowell.....	450,214	Apr. 14	837	210	55	169
Camera.....	F. A. Hetherington.....	460,099	Sept. 22	2449	612	56	1550
Camera attachment.....	C. L. Knox.....	445,561	Feb. 3	65	15	54	524
Camera-roll holder.....	T. H. Blair.....	461,306	Oct. 13	1178	300	57	236
Camera-roll holder.....	T. H. Blair and F. H. Kelley.....	461,308	Oct. 13	1182	301	57	236
Camera-roll-holder register.....	H. C. Boyer.....	460,672	Oct. 6	219	56	57	45
Camera-shutter.....	T. H. Blair and J. H. Crowell.....	461,307	Oct. 13	1180	301	57	236

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Camera-shutter	L. Prosch, Jr	447,902	Mar. 10	1037	260	54	1321
Can:							
See Ash-can. Non-explosive can.							
Cement-can. Oil-can.							
Filling-can. Paint-can.							
Liquid-holding can. Self-closing can.							
Measuring-can. Sheet-metal can.							
Measuring milk-can. Shipping-can.							
Metal can. Sprinkling-can.							
Milk-can.							
Can	J. Aytoun	460,946	Sept. 29	2671	{ 655 666 }	56	1610
Can	W. H. Golding	450,754	Apr. 21	1707	413	55	349
Can	W. W. Grant	458,898	Sept. 1	551	134	56	1170
Can	G. B. Hopper	458,053	Aug. 18	1842	481	56	897
Can and pump. Combined	E. W. Bullard	465,608	Dec. 22	2572	654	57	1652
Can and spreading device	A. J. Ingraham	453,639	June 9	728	158	55	1294
Can-bodies. Former for	J. H. Clapp and C. H. Emery	460,947	Oct. 13	635	164	57	131
Can-bodies. Machine for cutting blanks for metal	D. D. Ranney	448,258	Mar. 17	1613	412	54	1443
Can-bodies of irregular shape. Machine for forming and flanging	J. H. Clapp	457,909	Aug. 18	1612	421	56	852
Can-body-forming and side-seam-soldering machine	F. M. Leavitt	444,000	Jan. 6	22	{ 6, 7 8, 9 }	54	8
Can-capping machine	W. S. Bacon	463,591	Nov. 17	2183	576	57	990
Can-capping machine	M. Jensen	448,047	Mar. 10	1274	325	54	1367
Can-capping machine	F. Saunier	445,477	Jan. 27	2368	{ 616 617 }	54	488
Can-capping machine	J. C. Winters	450,276	Apr. 14	943	{ 234 235 }	55	187
Can-cover holder	W. T. Stiles	459,598	Sept. 15	1671	417	56	1404
Can-filling apparatus	F. B. Many and F. J. Harrison	450,467	Apr. 14	1247	305	55	244
Can-filling machine	I. W. Langford	462,491	Nov. 3	424	103	57	631
Can-filling machine	E. Norton and J. G. Hodgson	458,639	Sept. 1	139	{ 32 33 34 }	56	1093
Can for paint, &c	C. F. and C. F. Stites	446,034	Feb. 10	858	208	54	687
Can-heading machine	M. W. Edgar	464,297	Dec. 1	470	{ 112 113 }	57	1223
Can-heading machine	C. B. Kendall	450,624	Apr. 21	1485	{ 364 365 }	55	299
Can-heading machine	J. M. Ruddock	459,147	Sept. 8	944	{ 227 228 }	56	1257
Can-labeling machine	H. Albert	460,738	Oct. 6	329	80, 81	57	65
Can locking and unlocking mechanism	N. Finck	464,610	Dec. 8	920	{ 226 227 }	57	1321
Can-opener	G. L. Allen	463,131	Nov. 17	1454	377	57	851
Can-opener	G. H. Blakesley	451,258	Apr. 28	2524	622	55	514
Can-opener	F. V. De Lang	459,224	Sept. 8	1065	259	56	1279
Can-opener	G. Hipwood	450,810	Apr. 21	1803	438	55	366
Can-opener	G. Hipwood	458,703	Sept. 1	239	57	56	1111
Can-opener	S. E. Painter	446,883	Feb. 24	2245	558	54	978
Can-opener	J. P. Smith	466,193	Dec. 29	3511	898	57	1844
Can-testing machine	W. H. H. Stevenson	445,706	Feb. 3	314	83	54	574
Can-ventilator	A. W. Adams	451,198	Apr. 28	2430	600	55	495
Can-wiping machine	C. A. Burt	464,007	Dec. 1	8	3	57	1138
Cans. Acoustic alarm for oil	J. A. Pollock	445,608	Feb. 3	141	37	54	538
Cans. Combined band-coupling and handle for	M. Thoeni	459,716	Sept. 15	1860	467	56	1441
Cans. Machine for cleaning the tops of	G. L. Merrill. (Reissue)	11,175	July 7	707	{ 185 186 }	56	136
Cans. Machine for crimping and double-seaming	J. H. Clapp	457,908	Aug. 18	1610	{ 420 421 }	56	851
Canning device. Steam	C. F. Mudge	454,523	June 23	2020	524	55	1557
Canning purposes. Funnel for	B. S. Beam	463,473	Nov. 17	1994	521	57	954
Canal-boat	C. H. Turver	449,092	Mar. 24	2043	746	54	1705
Canal-lock	H. C. Harrison	446,708	Feb. 17	1955	487	54	911
Canal-rack	F. L. Robinson	454,185	June 16	1508	396	55	1451
Canals. Construction of	A. Pickard	448,072	Mar. 10	1307	334	54	1374
Candies. Apparatus for crystallizing	A. Siebel	456,293	July 21	1574	416	56	318
Candle. Altar	A. F. Baumer	455,501	July 7	316	81	56	64
Candle-holder	A. Messmer	447,339	Mar. 3	96	26	54	1136
Candle-holder	M. V. Woncher	450,277	Apr. 14	947	235	55	188
Candle-holder. Adjustable	G. Gürtler	450,884	Apr. 21	1927	472	55	389
Candle. Sulphur	S. B. Moss and T. F. Bourne	462,085	Oct. 27	2484	616	57	498
Candlestick	A. Heckl	445,555	Feb. 3	43	11	54	520
Candlestick	F. W. Jenkins	458,367	Aug. 25	2365	577	56	1002
Candlestick for Christmas-trees	M. Papert	464,228	Dec. 1	350	84	57	1200
Candy-cream cooler	T. Burkhard	444,147	Jan. 6	279	67	54	57
Candy for shipment. Packing rack	N. Palmer	454,619	June 23	2194	566	55	1587
Candy. Manufacture of	T. P. Kavanaugh	452,793	May 26	2181	55	1013	
Candy. Manufacture of	W. P. and J. W. Kirchhoff	457,439	Aug. 11	851	56	609	
Candy-mold	S. E. Ball	449,869	Apr. 7	340	87	55	68
Candy-mold	E. E. Euchenhofer	459,700	Sept. 15	1837	462	56	1436
Candy whistle	H. W. Hoops	452,706	May 19	2035	510	55	976
Cane and camp-stool. Combined	A. Schneider	444,621	Jan. 13	1000	260	54	207
Cane and slide-gage. Combination	R. Fuchs	448,016	Mar. 10	1223	313	54	1359
Cane and table. Combined	O. N. Kahl	450,603	Apr. 14	1445	355	55	284
Cane and umbrella. Combined	S. J. and J. Knox	453,194	June 2	23	7	55	1153
Cane and whip. Combined	M. O. Felker	459,081	Sept. 8	636	203	56	1234
Cane-cutter	R. R. Wilson	447,994	Mar. 10	1195	303	54	1351
Cane. Device for stripping leaves from sugar	R. Rohr	449,137	Mar. 31	3021	764	54	1728
Cane. Electric	A. W. and A. H. Roovers	465,949	Dec. 29	3102	794	57	1765
Cane-juice and apparatus therefor. Extracting	A. Leblanc	459,496	Sept. 15	1498	{ 375 376 }	56	1372
Cane-juice by filtration. Apparatus for treatment of	L. Boyer	453,735	June 9	876	227	55	1322
Cane-juice-straining device	W. C. Hazlip	460,867	Oct. 6	505	130	57	100

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Cane-mill	D. R. Bowen	457,395	Aug. 11	790	203	56	687
Cane-mill housing	G. Simon	462,169	Oct. 27	2623	654	57	525
Cane-mills. Steam-pressure regulator for	S. M. Malhot and C. A. Lejeune	445,856	Feb. 3	569	139	54	623
Cane, music-stand, and music-holder	E. Harders and M. P. Fleischman	448,185	Mar. 10	1477	376	54	1408
Cane-scraper	J. F. Aucoiu	446,805	Feb. 17	2105	524	54	943
Cane-slicing machine. Sugar	E. Schulze	457,221	Aug. 4	455	118 119 120	56	618
Cane-splicing machine	G. A. Watkins	452,248	May 12	1298	325 326	55	829
Cane with removable tobacco-pipe tubes, &c. Walking	H. Killenberger	457,160	Aug. 4	348	89	56	600
Cannon	A. R. Davis	456,800	July 28	2408	634	56	483
Cannon. Breech-loading	S. M. Tyrrell	464,089	Dec. 1	125	31	57	1161
Cannon-yoke	R. Rinfret	451,579	May 5	203	48	55	618
Canopy-frame	J. C. Goss	462,077	Oct. 27	2475	614	57	496
Canopy-frame	I. Popper	459,647	Sept. 15	1759	442	56	1421
Canopy-rod clamp	R. F. Painter	463,165	Nov. 17	1513	393	57	861
Canopy-top	J. Kohl	446,709	Feb. 17	1957	487	54	912
Canopy-top	G. W. Scott	456,384	July 21	1724	456	56	345
Canvas-stretcher frame	C. Fay	449,875	Apr. 7	346	88	55	69
Cap	I. Bash	457,069	Aug. 4	219	53	56	575
Cap	R. E. Bonar	460,499	Sept. 29	3065	769	56	1683
Capsule	S. E. Heineman	464,121	Dec. 1	168	41	57	1169
Capsule	W. Oppenheimer	462,990	Nov. 10	1225	319	57	797
Capsule-dipping machine. Gelatine	F. A. Hubel	465,933	Dec. 29	3075	789	57	1761
Capsule-dipping machine. Gelatine	F. A. Hubel and J. M. Smith	465,932	Dec. 29	3071	788	57	1760
Capsule-dipping machine. Gelatine	J. M. Smith	465,951	Dec. 29	3104	794 795	57	1766
Capsule. Gelatine	S. E. Heineman	447,514	Mar. 3	409	54	1195	
Capsulating-machine	P. Dutto	460,321	Sept. 29	2798	697	56	1634
Car and air-brake coupling. Combined	J. C. F. Ripley	451,654	May 5	323	78	55	640
Car and door therefor. Freight	O. P. Hix	459,905	Sept. 22	2170	545	56	1506
Car and operating mechanism therefor. Dumping	J. Lawson	446,758	Feb. 17	2034	506 507	54	927
Car and pipe coupling. Combined	A. C. Grover	449,219	Mar. 31	3143	793	54	1750
Car-bodies. Anti-friction bolster-bearing for	A. W. Zimmerman	460,170	Sept. 29	2565	639 640	56	1589
Car-body	G. J. Porter	461,173	Oct. 13	962	248	57	191
Car-body	J. Turner	456,864	July 28	2520	662	56	503
Car-brake	W. W. Allen	463,695	Nov. 24	2366	619	57	1032
Car-brake	W. L. and E. A. Antrim	456,130	July 21	1303	343	56	267
Car-brake	L. G. Arnold	446,504	Feb. 17	1651	403	54	852
Car-brake	D. L. Barnes	450,949	Apr. 21	2009	495	55	406
Car-brake	E. M. Barnes	447,272	Feb. 24	2927	727 728	54	1107
Car-brake	W. T. Bothwell	444,145	Jan. 6	277	66	54	57
Car-brake	H. F. Braun	464,847	Dec. 8	1290	323	57	1391
Car-brake	F. C. Brewster	454,452	June 23	1914	499	55	1537
Car-brake	G. M. Brill	445,307	Jan. 27	2120	549	54	438
Car-brake	R. A. Burch and A. B. Winfree	456,398	July 21	1742	460	56	349
Car-brake	H. E. Collett	460,113	Sept. 29	2473	618	56	1571
Car-brake	C. W. Duncan	463,598	Nov. 17	2198	579	57	993
Car-brake	J. Fischer	452,368	May 19	1499	371	55	875
Car-brake	J. Fischer	459,836	Sept. 22	2050	515	56	1485
Car-brake	R. R. Gairing	463,187	Nov. 17	1540	402	57	866
Car-brake	J. W. Hartigan	459,782	Sept. 22	1964	495	56	1467
Car-brake	O. A. Henjum	463,152	Nov. 17	1484	385	57	855
Car-brake	T. B. Jack	453,482	June 2	482	124	55	1239
Car-brake	G. E. Johnson	456,958	Aug. 4	58	14	56	544
Car-brake	J. Kinney	444,990	Jan. 20	1638	420	54	336
Car-brake	J. A. La Croix	451,328	Apr. 28	2632	650	55	534
Car-brake	I. G. Lemon	452,885	May 26	2326	566 587	55	1046
Car-brake	S. R. Lewis	455,753	July 14	748	196 197	56	153
Car-brake	J. Marold	453,910	June 9	1117	292	55	1368
Car-brake	F. Meyer	456,674	July 28	2198	582 583	56	445
Car-brake	A. J. O'Neill	462,989	Nov. 10	1224	319	57	796
Car-brake	T. D. Osborne	455,927	July 14	1012	264	56	202
Car-brake	J. L. Owen	454,224	June 16	1561	410 411	55	1462
Car-brake	P. A. Petterson	455,495	July 7	306	78	56	62
Car-brake	J. F. Pfetich	462,993	Nov. 10	1228	320	57	798
Car-brake	J. Player	446,569	Feb. 17	1747	430	54	871
Car-brake	A. B. Pool and J. J. Beals	446,981	Feb. 24	2410	600	54	1008
Car-brake	A. B. Pool and J. J. Beals	458,407	Aug. 25	2427	591	56	1014
Car-brake	A. B. Pool and J. J. Beals	464,038	Dec. 1	46	13	57	1145
Car-brake	J. Reichmann	445,733	Feb. 3	357	93	54	583
Car-brake	J. T. Robinson	458,497	Aug. 25	2569	625	56	1040
Car-brake	J. T. Robinson	465,389	Dec. 15	2212	567	57	1574
Car-brake	W. R. Seiders	449,630	Mar. 31	3855	965	54	1882
Car-brake	H. H. Sessions	447,911	Mar. 10	1054	263 264	54	1325
Car-brake	J. Trendley	464,596	Dec. 8	901	221	57	1317
Car-brake	T. Tripp	450,761	Apr. 21	1717	415 416	55	351
Car-brake	T. Tripp	450,762	Apr. 21	1719	416 417	55	351
Car-brake	G. W. Turner	461,107	Oct. 13	861	222	57	173
Car-brake	S. B. Wortmann	453,790	June 9	967	252	55	1339
Car-brake	M. A. Yeakley	456,750	July 28	2335	615 616	56	470

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Car-brake adjuster.....	A. E. Manchester and J. C. Miller.....	463,907	Nov. 24	2688	699	57	1093
Car-brake and brake-governor. Automatic.....	B. Kellogg.....	446,525	Feb. 17	1080	410	54	858
Car-brake and starter.....	C. J. Luce.....	417,780	Mar. 10	823	205	54	1281
Car-brake attachment.....	L. H. Raub.....	455,114	June 30	3056	777	55	1750
Car-brake. Automatic.....	W. S. Fraser.....	452,700	May 19	2028	508	55	975
Car-brake. Automatic.....	W. C. Lowe.....	459,141	Sept. 8	937	225	56	1255
Car-brake. Automatic.....	W. Raab.....	451,435	Apr. 28	2790	689	55	564
Car-brake. Automatic.....	A. J. Rosentreter.....	450,300	Apr. 14	979	243	55	194
Car-brake. Automatic.....	J. P. Seawall and J. H. O'Hara.....	447,207	Feb. 24	2807	695	54	1023
Car-brake. Cable.....	J. F. Waite.....	446,305	Feb. 10	1332	324	54	775
Car-brake. Electric.....	C. R. Arnold.....	457,067	Aug. 4	215	52	56	574
Car-brake. Electric.....	L. C. Atwood.....	461,808	Oct. 27	2065	509	57	417
Car-brake. Electric.....	L. C. Atwood.....	466,212	Dec. 29	3538	905	57	1849
Car-brake. Electric.....	J. D. Collier and J. K. P. Miller.....	462,793	Nov. 10	904	236	57	734
Car-brake. Electric.....	B. L. Randall.....	444,110	Jan. 6	209	50	54	43
Car-brake. Electric.....	E. Verstraete.....	457,016	Aug. 4	129	31, 32	56	558
Car-brake. Electric.....	E. Verstraete.....	465,034	Dec. 15	1022	412	57	1464
Car-brake. Hand.....	C. Roberts.....	446,715	Feb. 17	1964	490	54	913
Car-brake mechanism.....	W. S. Adams and J. A. Brill.....	461,008	Oct. 13	721	186	57	147
Car-brake mechanism.....	M. Leary.....	460,586	Oct. 6	68	19	57	15
Car-brake mechanism.....	W. F. Richards.....	460,162	Sept. 29	2549	635	56	1585
Car-brake mechanism.....	A. J. Wright.....	456,608	July 28	2088	553	56	423
Car-brake mechanism.....	A. J. Wright.....	456,609	July 28	2091	553	56	424
Car-brake mechanism. Street.....	N. C. Bassott.....	454,450	June 23	1910	498	55	1536
Car-brake. Railway.....	J. M. Blondell.....	449,645	Mar. 31	3877	970	54	1886
Car-brake. Railway.....	E. G. Desoe.....	464,753	Dec. 8	1157	248	57	1364
Car-brake. Railway.....	M. G. Hubbard, Jr.....	463,683	Nov. 24	2342	614	57	1028
Car-brake. Railway.....	P. F. White.....	451,095	Apr. 28	2241	555	55	460
Car-brake. Safety.....	W. W. Allen.....	455,296	July 7	1	1	56	3
Car-brake. Safety.....	P. F. Petersen.....	453,984	June 9	1220	317	55	1389
Car-brake shoe.....	C. H. Emerson.....	448,011	Mar. 10	1228	312	54	1357
Car-brake. Street.....	H. M. Ellhott.....	444,168	Jan. 6	315	76	54	64
Car-brake. Street.....	J. M. Gropp.....	456,195	July 21	1409	374	56	287
Car-brake. Street.....	J. H. King.....	448,438	Mar. 17	1922	483	54	1502
Car-brakes. Actuating device for.....	V. Angerer.....	463,433	Nov. 17	1934	505	57	942
Car-brakes. Device for automatically operating.....	J. H. Fox.....	457,313	Aug. 4	617	162	56	648
Car-brakes. Device for automatically operating power.....	B. C. Rowell.....	444,962	Jan. 20	1600	409	54	327
Car-brakes. Pressure-regulator for.....	H. Hinckley.....	448,234	Mar. 17	1568	401	54	1435
Car-brakes. Ratchet-handle for.....	M. Weber.....	459,101	Sept. 8	879	212	56	1244
Car-brakes. Slack take-up for.....	H. Hinckley.....	465,266	Dec. 15	2001	512	57	1534
Car-buffer.....	N. P. Cowell.....	457,473	Aug. 11	911	233	56	709
Car-buffer.....	J. Green.....	458,532	Aug. 25	2622	638	56	1051
Car-buffer.....	F. H. J. Wüstenhöfer.....	452,910	May 26	2365	598	55	1047
Car-buffer. Railway.....	S. H. Springer.....	463,296	Nov. 17	1710	446	57	899
Car-buffers. Device for relieving the tension of.....	C. A. Schroyer and E. B. Thompson.....	449,388	Mar. 31	3450	868	54	1805
Car. Cable.....	J. Stephenson.....	455,774	July 14	773	203	56	157
Car. Cattle.....	F. E. Canda.....	449,203	Mar. 31	3122	788	54	1747
Car. Cattle.....	F. E. Canda.....	450,504	Apr. 14	1302	319	55	257
Car. Cattle.....	F. E. Canda.....	456,399	July 21	1743	460	56	349
Car. Cattle or stock.....	D. L. Sylvester.....	447,919	Mar. 10	1067	267	54	1327
Car construction.....	G. W. McNear.....	463,071	Nov. 10	1349	349	57	822
Car construction.....	H. H. Sessions.....	453,403	June 2	346	90	55	1213
Car construction.....	H. H. Sessions.....	456,291	July 21	1572	415	56	317
Car-controlling device. Electric.....	E. M. Bentley.....	444,479	Jan. 13	780	203	54	163
Car. Convertible.....	M. B. Ryan.....	454,921	June 30	2702	691	55	1690
Car-coupler.....	M. J. McGowan.....	465,675	Dec. 22	2674	682	57	1672
Car-coupling.....	J. T. Aabel.....	465,231	Dec. 15	1943	494	57	1524
Car-coupling.....	E. G. Adams.....	462,227	Nov. 3	3	1	57	553
Car-coupling.....	C. N. Alderman.....	460,385	Sept. 29	2894	723	56	1652
Car-coupling.....	A. B. Allen.....	464,000	Dec. 1	1	1	57	1137
Car-coupling.....	D. Altman.....	450,904	Apr. 21	1953	479	55	394
Car-coupling.....	J. F. Angerstein.....	450,348	Apr. 14	1065	262	55	210
Car-coupling.....	W. R. Anderson.....	456,930	Aug. 4	3	1	56	533
Car-coupling.....	A. Asbell.....	457,241	Aug. 4	487	129	56	624
Car-coupling.....	T. E. Askew.....	450,129	Apr. 14	715	179	55	146
Car-coupling.....	G. W. Bailey.....	450,832	Apr. 21	1844	449	55	373
Car-coupling.....	G. B. Ballou.....	452,356	May 19	1484	368	55	872
Car-coupling.....	C. A. Ballreich.....	465,980	Dec. 29	3158	809	57	1776
Car-coupling.....	E. F. Barker.....	465,124	Dec. 15	1785	450	57	1493
Car-coupling.....	D. L. Barnes.....	448,003	Mar. 19	1207	306	54	1354
Car-coupling.....	C. O. and L. Barnes, Sr.....	445,768	Feb. 3	420	105	54	595
Car-coupling.....	C. O. and L. Barnes, Sr.....	448,852	Mar. 24	2584	649	54	1636
Car-coupling.....	L. Sr., and C. O. Barnes.....	455,500	July 7	315	80	56	63
Car-coupling.....	N. Barr.....	465,773	Dec. 22	2814	722	57	1700
Car-coupling.....	H. S. Beahm.....	464,787	Dec. 8	1213	302	57	1375
Car-coupling.....	G. Bell.....	454,417	June 16	1864	487	55	1519
Car-coupling.....	F. L. Benjamin.....	451,018	Apr. 28	2142	530	55	430
Car-coupling.....	G. B. Benjamin.....	452,658	May 19	1962	492	55	961
Car-coupling.....	W. Bentley.....	454,704	June 23	2319	596	55	1612
Car-coupling.....	W. Bentley.....	460,841	Oct. 6	470	119	57	93
Car-coupling.....	J. M. Birtels.....	456,080	July 14	1233	324	56	243
Car-coupling.....	T. A. Bissell.....	448,406	Mar. 17	1870	470	54	1492
Car-coupling.....	A. H. Blankman.....	461,540	Oct. 20	16	2	399	327
Car-coupling.....	J. A. Bosch.....	465,554	Dec. 22	2488	635	57	1637

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & E.	Vol.	Page.
Car-coupling	D. Bowles	447,522	Mar. 3	422	103	54	1197
Car-coupling	N. F. Brent	458,307	Aug. 25	2260	552	56	982
Car-coupling	P. Brekke	453,611	June 9	681	177	55	1284
Car-coupling	T. F. Bright	448,497	Mar. 17	2011	503	54	1518
Car-coupling	W. J. Brooks	465,154	Dec. 15	1831	465	57	1501
Car-coupling	I. N. Brown	459,626	Sept. 15	1726	433	56	1414
Car-coupling	J. H. Brown	458,144	Aug. 18	1981	513	56	924
Car-coupling	P. Brown	461,312	Oct. 13	1187	302	57	237
Car-coupling	P. Brown	461,219	Dec. 29	3550	908	57	1852
Car-coupling	W. Brown	456,474	July 21	1867	493	56	372
Car-coupling	H. C. Bugg and E. B. Loomis	461,314	Oct. 13	1190	303	57	238
Car-coupling	H. Bunker	466,221	Dec. 29	3553	909	57	1852
Car-coupling	E. P. Caldwell	456,552	July 28	2060	528	56	406
Car-coupling	H. Caldwell	464,426	Dec. 1	643	158	57	1257
Car-coupling	J. Callantue	460,329	Sept. 29	2812	700	56	1637
Car-coupling	A. G. Canada	449,928	Apr. 7	425	166	55	83
Car-coupling	C. M. Carnahan	454,711	June 23	2330	599	55	1614
Car-coupling	A. F. Chandler	461,400	Oct. 13	1344	339	57	268
Car-coupling	R. Chardler	450,217	Apr. 14	841	211	55	170
Car-coupling	J. Chenoweth	450,928	Apr. 21	1981	486	55	400
Car-coupling	W. and S. L. Christian	454,534	June 23	2046	529	55	1561
Car-coupling	M. Clausen	460,198	Sept. 29	2662	650	56	1596
Car-coupling	O. W. and L. A. Clement	461,071	Oct. 13	811	267	57	163
Car-coupling	R. Clinton	457,108	Aug. 4	276	71	56	585
Car-coupling	J. W. Cloud	451,859	May 5	671	170	55	766
Car-coupling	S. A. Cloud	459,994	Sept. 22	2286	573	56	1528
Car-coupling	C. M. Cole	459,958	Sept. 22	2236	561	56	1519
Car-coupling	H. J. Cole	457,848	Aug. 18	1508	393	56	834
Car-coupling	G. C. Collins	454,978	June 30	2811	715	55	1711
Car-coupling	C. F. Comstock	457,076	Aug. 4	210	58	56	577
Car-coupling	J. Coup	464,958	Dec. 15	1469	370	57	1436
Car-coupling	T. Courser	462,113	Oct. 27	2542	632	57	509
Car-coupling	J. W. Creswell	453,375	June 2	301	79	55	1204
Car-coupling	D. B. Croft	455,247	June 30	3268	829	55	1799
Car-coupling	W. W. Davis	453,382	June 2	316	81	55	1266
Car-coupling	C. De Roberts	452,862	May 26	2283	573	55	1632
Car-coupling	T. Dee	453,549	June 2	580	148	55	1257
Car-coupling	J. C. Devlin	465,556	Dec. 22	2496	636	57	1637
Car-coupling	P. Devney	448,942	Mar. 24	2714	685	54	1661
Car-coupling	F. Dickey	452,774	May 26	2150	539	55	1006
Car-coupling	G. W. Dickey	454,427	June 16	1877	491	55	1522
Car-coupling	W. Dixon	458,948	Sept. 1	620	153	56	1186
Car-coupling	W. Dodge	466,160	Dec. 29	3462	885	57	1835
Car-coupling	H. C. Dose and J. Ronkowski, Sr.	458,998	Sept. 8	702	172	56	1210
Car-coupling	S. B. Dover	459,960	Sept. 22	2238	562	56	1519
Car-coupling	E. P. Eastwick, Jr.	454,721	June 21	2345	602	55	1617
Car-coupling	E. P. Eastwick, Jr.	454,722	June 23	2347	603	55	1618
Car-coupling	E. P. Eastwick, Jr.	454,723	June 23	2348	603	55	1618
Car-coupling	C. E. C. Edey	450,578	Apr. 14	1394	344	55	275
Car-coupling	J. Ellick	457,986	Aug. 18	1748	458	56	878
Car-coupling	J. W. Elliott	462,401	Nov. 3	301	74	57	608
Car-coupling	M. F. Ely, J. B. Funk, and F. H. Ely	461,703	Oct. 20	1893	468	57	376
Car-coupling	F. Enos	466,119	Dec. 29	3390	867	57	1821
Car-coupling	S. and J. C. Fernald	461,670	Oct. 20	1836	454	57	365
Car-coupling	W. R. Fine	448,949	Mar. 24	2725	688	54	1663
Car-coupling	M. F. Fimerty	447,640	Mar. 3	598	147	54	1230
Car-coupling	T. M. Fisher and A. Slye	445,503	Jan. 27	2409	628	54	495
Car-coupling	J. M. Fisk	448,014	Mar. 10	1231	313	54	1358
Car-coupling	O. Flohr	445,242	Jan. 27	2029	523	54	420
Car-coupling	O. Flohr	445,243	Jan. 27	2031	523	54	421
Car-coupling	O. Flohr	445,244	Jan. 27	2034	523	54	421
Car-coupling	O. Flohr	445,245	Jan. 27	2035	523	54	421
Car-coupling	O. Flohr	445,246	Jan. 27	2038	524	54	421
Car-coupling	O. Flohr	445,248	Jan. 27	2041	525	54	422
Car-coupling	A. Fontayne, Sr.	456,987	Aug. 4	96	23	56	551
Car-coupling	L. E. Ford and A. J. Whitworth	466,015	Dec. 29	3235	825	57	1790
Car-coupling	R. Forward	418,515	Mar. 17	2031	568	54	1523
Car-coupling	F. A. Fox	455,589	July 7	474	123	56	92
Car-coupling	F. A. Fox	455,590	July 7	475	123	56	92
Car-coupling	E. Frantz	453,978	June 9	1206	315	55	1387
Car-coupling	J. T. Friend	456,869	July 28	2425	640	56	486
Car-coupling	L. L. Frost	445,279	Jan. 27	2088	539	54	431
Car-coupling	L. Gaddis	452,267	May 12	1328	331	55	833
Car-coupling	E. A. Gallup	459,177	Sept. 8	999	244	56	1266
Car-coupling	W. H. Garlock	459,250	Sept. 8	1104	269	56	1287
Car-coupling	W. V. Gelatt	444,096	Jan. 6	186	45	54	38
Car-coupling	D. Genese and A. Schmidt	449,876	Apr. 7	347	88	55	69
Car-coupling	M. N. George	458,896	Sept. 1	547	133	56	1170
Car-coupling	E. N. Gifford	444,697	Jan. 13	1117	288 } 289 }	54	229
Car-coupling	E. N. Gifford	457,154	Aug. 4	338	86, 87	56	598
Car-coupling	J. Gingrich	459,398	Sept. 15	1347	337	56	1344
Car-coupling	M. M. Gooch	465,779	Dec. 22	2824	724	57	1702
Car-coupling	W. L. Goss and W. H. Harrell	460,936	Oct. 6	620	159	57	121
Car-coupling	J. B. Granger	462,078	Oct. 27	2476	614	57	497
Car-coupling	J. B. Graves	460,531	Sept. 29	3124	781	56	1697
Car-coupling	J. B. Graves	460,532	Sept. 29	3126	781	56	1697
Car-coupling	G. W. Green	454,864	June 30	2578	662	55	1667
Car-coupling	J. Green	448,613	Mar. 17	2194	549	54	1553
Car-coupling	J. Green	450,356	Apr. 14	1074	264	55	212
Car-coupling	J. Green	457,048	Aug. 4	170	42	56	566
Car-coupling	J. Green	458,528	Aug. 25	2617	637	56	1050

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Car-coupling	S. W. Griffith	465,322	Dec. 15	2092	534	57	1551
Car-coupling	L. Groff	456,562	July 28	2008	{ 530 531 }	{ 56 56 }	408
Car-coupling	H. M. Grover	459,904	Sept. 22	2168	545	56	1506
Car-coupling	W. B. Guernsey	464,866	Dec. 8	1317	330	57	1396
Car-coupling	L. Guillaudeu	455,713	July 7	674	178	56	130
Car-coupling	A. Hackman	454,133	June 16	1425	373	55	1436
Car-coupling	C. J. Hafey	452,372	May 19	1503	{ 372 373 }	{ 55 55 }	876
Car-coupling	A. C. Hall	465,663	Dec. 22	2659	678	57	1669
Car-coupling	J. D. Hall	458,900	Sept. 1	553	134	56	1171
Car-coupling	M. Hall	456,409	July 21	1759	465	56	352
Car-coupling	W. G. Hamilton	453,443	June 2	422	110	55	1327
Car-coupling	P. B. Hand	449,253	Mar. 31	3202	807	54	1762
Car-coupling	G. Hardy	459,041	Sept. 8	780	189	56	1225
Car-coupling	C. Harrington	459,547	Sept. 15	1584	397	56	1358
Car-coupling	O. C. Harris	450,015	Apr. 7	545	135	55	106
Car-coupling	J. P. Hasty	466,233	Dec. 29	3568	914	57	1855
Car-coupling	C. E. Haynes	448,427	Mar. 17	1903	478	54	1499
Car-coupling	A. R. Heath	466,167	Dec. 29	3473	{ 887 888 }	{ 57 57 }	1837
Car-coupling	G. A. Hendricks	444,050	Jan. 6	104	26	54	23
Car-coupling	W. Hickman and H. C. Spindle	453,478	June 2	477	123	55	1238
Car-coupling	J. A. Hinson	460,351	Sept. 29	2848	709	56	1644
Car-coupling	J. A. Hinson	464,825	Dec. 8	1263	{ 315 316 }	{ 57 57 }	1385
Car-coupling	W. and A. Hintz	465,267	Dec. 15	2004	513	57	1535
Car-coupling	D. Hirsh	454,045	June 16	1301	339	55	1412
Car-coupling	S. M. Hobson	448,039	Mar. 10	1265	322	54	1364
Car-coupling	H. W. Hoss	463,513	Nov. 17	2042	535	57	964
Car-coupling	M. Howe	455,795	July 14	816	213	56	166
Car-coupling	C. W. Hunt	444,594	Jan. 13	964	250	54	200
Car-coupling	C. W. Hunt	444,955	Jan. 20	1593	406	54	326
Car-coupling	W. R. Hunter	461,546	Oct. 20	1639	401	57	322
Car-coupling	P. F. Hutchison	460,970	Oct. 13	670	173	57	137
Car-coupling	J. M. Igce and E. D. Whipple	450,620	Apr. 21	1480	363	55	298
Car-coupling	C. P. Jacobs	444,493	Jan. 13	812	211	54	170
Car-coupling	A. L. Jaynes	451,593	May 5	226	53	55	622
Car-coupling	C. F. Johnson	457,890	Aug. 18	1585	412	56	847
Car-coupling	F. A. Johnson	447,154	Feb. 24	2725	675	54	1066
Car-coupling	W. Johnson	446,147	Feb. 10	1045	256	54	721
Car-coupling	A. E. Jones and T. F. Fagan	458,905	Sept. 1	560	136	56	1172
Car-coupling	J. E. Kauffelt	450,238	Apr. 14	894	222	55	178
Car-coupling	W. H. Kellogg	460,516	Sept. 29	3091	772	56	1690
Car-coupling	G. A. Kennedy	461,635	Oct. 20	1782	439	57	355
Car-coupling	J. D. Kingsbury	464,712	Dec. 8	1097	272	57	1353
Car-coupling	E. P. Kinney	449,798	Apr. 7	243	61	55	48
Car-coupling	J. W. Kirby	460,917	Oct. 6	594	150	57	116
Car-coupling	C. J. Knighton, Jr.	465,711	Dec. 22	2722	695	57	1682
Car-coupling	J. Kormil	456,039	July 14	1180	310	56	233
Car-coupling	M. Kretschmann	450,969	Apr. 21	2060	508	55	415
Car-coupling	J. La Burt	444,316	Jan. 6	527	137	54	105
Car-coupling	W. I. and J. E. Lankford	446,356	Feb. 10	1403	344	54	790
Car-coupling	V. Larson	458,631	Sept. 1	129	29	56	1091
Car-coupling	B. T. Laws	446,528	Feb. 17	1689	414	54	860
Car-coupling	H. B. Ledel	465,377	Dec. 15	2196	562	57	1570
Car-coupling	P. Lee	463,522	Nov. 17	2053	538	57	966
Car-coupling	A. G. Leonard	461,839	Oct. 27	2115	521	57	427
Car-coupling	G. D. Lewis	464,572	Dec. 8	866	213	57	1309
Car-coupling	P. H. Lewis	446,358	Feb. 10	1405	344	54	791
Car-coupling	T. E. Lewis	459,296	Sept. 8	1174	285	56	1301
Car-coupling	E. F. Long	449,224	Mar. 31	3150	794	54	1752
Car-coupling	J. C. Look	465,987	Dec. 29	3171	{ 813 814 }	{ 57 57 }	1778
Car-coupling	T. A. McBride	461,035	Oct. 13	763	{ 195 196 }	{ 57 57 }	155
Car-coupling	J. McComb, W. L. Hook, J. McComb, and R. Gillespie	455,237	June 30	3252	825	55	1797
Car-coupling	W. McConway	446,602	Feb. 17	1787	{ 442 443 }	{ 54 54 }	879
Car-coupling	W. McConway	447,969	Mar. 10	1156	293	54	1343
Car-coupling	A. C. McCord	454,406	June 16	1843	482	55	1515
Car-coupling	P. McEntee	451,505	May 5	96	24	55	597
Car-coupling	J. W. McGill	463,687	Nov. 24	2350	616	57	1030
Car-coupling	T. L. McKeen	445,817	Feb. 3	511	123	54	611
Car-coupling	R. McMahon	447,737	Mar. 3	736	185	54	1257
Car-coupling	J. M. McMaster	451,898	May 5	681	172	55	708
Car-coupling	G. C. McMichael	453,127	May 26	2725	687	55	1118
Car-coupling	J. McQuillan	453,738	June 9	881	228	55	1323
Car-coupling	E. S. Meals	463,768	Nov. 24	2470	645	57	1052
Car-coupling	S. J. Meeker	461,906	Oct. 27	2227	550	57	449
Car-coupling	A. C. Merritt	463,866	Nov. 24	2627	685	57	1083
Car-coupling	F. Miller	449,633	Mar. 31	3858	966	54	1833
Car-coupling	R. V. Mitchell, J. W. Peck, and W. H. Mitchell	458,812	Sept. 1	394	95	56	1141
Car-coupling	J. A. Moise and J. Finch	460,792	Oct. 6	409	99	57	81
Car-coupling	H. E. Moomaw	450,085	Apr. 7	644	163	55	126
Car-coupling	C. F. Mowll	449,559	Mar. 31	3718	934	54	1857
Car-coupling	H. Mové	447,712	Mar. 3	693	173	54	1249
Car-coupling	J. E. Mullins	446,976	Feb. 24	2401	598	54	1006
Car-coupling	C. J. Murphy and T. F. McCarthy	450,180	Apr. 14	782	197	55	159
Car-coupling	C. F. Murray	449,561	Mar. 31	3722	935	54	1858
Car-coupling	D. T. Nichols	458,237	Aug. 25	2132	523	56	959
Car-coupling	G. E. Nichols	463,737	Nov. 21	2428	636	57	1044

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Car-coupling	F. G. Nixon	452,680	May 19	1994	499	55	968
Car-coupling	J. A. Painter	453,891	June 9	1090	285	55	1363
Car-coupling	V. Parks	465,027	Dec. 15	1613	411	57	1462
Car-coupling	G. A. Patten and J. T. Webber	461,043	Oct. 13	774	198	57	156
Car-coupling	H. L. Peck	460,707	Oct. 6	286	70	57	56
Car-coupling	P. Pedersen and D. C. Miller	447,718	Mar. 3	704	176	54	1251
Car-coupling	P. S. N. Petersen	450,680	Apr. 21	1609	387	55	330
Car-coupling	C. A. Pooley	462,413	Nov. 3	315	78	57	611
Car-coupling	J. H. Priestley	449,805	Apr. 7	250	63	55	50
Car-coupling	P. M. Reagan	466,082	Dec. 29	3335	851	57	1811
Car-coupling	W. Richards	460,402	Sept. 29	2917	729	56	1656
Car-coupling	H. E. Ricker	460,382	Sept. 29	2889	722	56	1651
Car-coupling	G. R. Rogers	447,259	Feb. 24	2898	720	54	1101
Car-coupling	G. Rohrbach	462,511	Nov. 3	453	111	57	637
Car-coupling	A. Roney and G. H. Lloyd	452,239	May 12	1279	322	55	825
Car-coupling	B. Roper	455,258	June 30	3294	832	55	1802
Car-coupling	J. Rowe and T. B. Jack	457,672	Aug. 11	1213	312	56	768
Car-coupling	B. Rowell	458,861	Sept. 1	490	120	56	1158
Car-coupling	H. Ruppert	452,067	May 12	997	252	55	771
Car-coupling	H. G. Russell	454,385	June 16	1805	471	55	1507
Car-coupling	H. G. Russell	461,380	Oct. 13	1309	330	57	261
Car-coupling	D. J. Salley	455,692	July 7	635	168	56	123
Car-coupling	H. Schaeffer	462,589	Nov. 3	582	143	57	663
Car-coupling	J. Schatz	447,977	Mar. 10	1166	295	54	1345
Car-coupling	W. L. Schlager and J. C. Dommermuth	453,670	June 9	774	200	55	1302
Car-coupling	W. Schroeder	456,526	July 21	1954	514	56	389
Car-coupling	C. E. Seabury	456,858	July 28	2513	659	56	501
Car-coupling	W. B. Seal	462,999	Nov. 10	1235	321	57	799
Car-coupling	N. Sedon	462,332	Nov. 3	179	45	57	584
Car-coupling	J. L. Shoenberger	452,807	May 26	2201	553	55	1017
Car-coupling	C. H. Shuttleworth	448,304	Mar. 17	1705	432	54	1461
Car-coupling	W. P. Simpson	463,925	Nov. 24	2725	707	57	1100
Car-coupling	J. Simms	450,539	Apr. 14	1344	331	55	265
Car-coupling	W. H. Slayden and D. M. Reynolds	453,947	June 9	1163	304	55	1378
Car-coupling	G. W. Smillie	451,883	May 5	662	168	55	705
Car-coupling	C. W. Smith	447,165	Feb. 24	2741	678	54	1069
Car-coupling	F. W. Smith	449,974	Apr. 7	491	122	55	95
Car-coupling	W. G. Smith and J. E. Kohrer	460,225	Sept. 29	2643	659	56	1605
Car-coupling	E. M. Snedeker	465,682	Dec. 22	2686	685	57	1674
Car-coupling	H. Sommerfeld	447,375	Mar. 3	160	44	54	1148
Car-coupling	S. H. Springer	448,686	Mar. 24	2321	581	54	1586
Car-coupling	H. A. Stevens	444,890	Jan. 20	1467	390	54	303
Car-coupling	E. Stewart	453,518	June 2	533	137	55	1248
Car-coupling	C. Stilger	460,999	Oct. 13	712	183	57	145
Car-coupling	R. Stockton	465,807	Dec. 22	2863	733	57	1711
Car-coupling	M. L. Strother	449,713	Apr. 7	106	28	55	23
Car-coupling	C. C. Strother	459,128	Sept. 8	920	221	56	1252
Car-coupling	T. M. Stuart	445,576	Feb. 3	88	21	54	528
Car-coupling	O. W. Stublefield	457,096	Aug. 4	256	66	56	582
Car-coupling	J. H. Sweeney	464,536	Dec. 8	1277	320	57	1388
Car-coupling	D. and W. M. Taylor	466,123	Dec. 29	3405	871	57	1824
Car-coupling	W. R. Teegarden	463,177	Nov. 17	1529	399	57	864
Car-coupling	E. S. Thomas and J. E. Littlejohn	450,537	Apr. 14	1343	330	55	265
Car-coupling	J. A. M. Thompson	449,014	Mar. 24	2823	715	54	1682
Car-coupling	H. von Tideman and J. Cook	465,003	Dec. 22	2564	653	57	1651
Car-coupling	J. Timms	469,357	Nov. 17	1814	474	57	918
Car-coupling	D. Touhy	458,080	Aug. 18	1879	489	56	905
Car-coupling	S. D. Tungate	449,718	Apr. 7	113	29	55	24
Car-coupling	J. Van Dell	463,782	Nov. 24	2486	649	57	1056
Car-coupling	W. H. Violet	461,299	Oct. 13	1170	298	57	234
Car-coupling	J. W. Wagner	454,550	June 23	2061	533	55	1564
Car-coupling	W. J. Walker	446,239	Feb. 10	1227	300	54	755
Car-coupling	W. J. Walker	452,891	May 26	2335	590	55	1042
Car-coupling	W. J. Walker	465,300	Dec. 15	2058	526	57	1545
Car-coupling	W. E. Wall and J. W. Haddick	457,626	Aug. 11	1146	293	56	755
Car-coupling	F. Walsh	458,649	Sept. 1	162	38	56	1096
Car-coupling	T. H. Walsh	444,913	Jan. 20	1515	{ 389 390 377 378 }	{ 54 56 }	312 1374
Car-coupling	W. C. Watson	459,502	Sept. 15	1507	{ 377 378 }	{ 56 56 }	1374 1560
Car-coupling	L. L. Weakley	460,101	Sept. 22	2451	613	56	1221
Car-coupling	S. A. Weathersby	459,029	Sept. 8	759	184	56	868
Car-coupling	J. R. Weaver	446,556	Feb. 17	1729	435	54	1025
Car-coupling	C. Weeks and J. E. Bush	447,035	Feb. 24	2505	622	54	323
Car-coupling	A. H. Weir	461,527	Oct. 20	1612	394	57	755
Car-coupling	G. W. Weller	446,240	Feb. 10	1228	300	54	382
Car-coupling	F. A. Westbrook and W. S. Cook	456,509	July 21	1919	507	56	707
Car-coupling	F. A. Westbrook and W. S. Cook	457,468	Aug. 11	898	232	56	1221
Car-coupling	S. D. Wham	459,030	Sept. 8	760	185	56	1022
Car-coupling	A. Wichler	458,437	Aug. 25	2472	602	56	774
Car-coupling	D. Williams	462,915	Nov. 10	1108	289	57	826
Car-coupling	W. W. Windham	463,087	Nov. 10	1372	354	57	748
Car-coupling	J. J. Wisda	462,832	Nov. 10	973	253	57	702
Car-coupling	F. B. Woodman	457,447	Aug. 11	866	225	56	1767
Car-coupling	S. Woodworth	455,141	June 30	3098	788	55	1706
Car-coupling	S. W. Wright	454,970	June 30	2788	710	55	241
Car-coupling	S. W. Wright	456,074	July 14	1225	322	56	750
Car-coupling	F. Wussow	452,000	May 12	865	221	55	161
Car-coupling	J. E. M. Yates	461,065	Oct. 13	803	205	57	1611
Car-coupling	D. H. Young	448,769	Mar. 24	2457	614	54	1225
Car-coupling	J. W. Young	453,434	June 2	412	107	55	1591
Car-coupling	J. Zilius	448,704	Mar. 24	2346	588	54	11
Car coupling and buffer	S. H. Harrington	455,326	July 7	39	11	56	

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Car coupling and buffer.....	C. Z. Hnbbell.....	455,331	July 7	44	13	56	11
Car coupling and buffer.....	C. Z. Hubbell.....	457,995	Aug. 18	1756	461	56	880
Car-coupling attachment.....	W. H. B. Stout.....	461,288	Oct. 13	1152	294	57	230
Car-coupling attachment.....	J. L. Welch.....	459,187	Sept. 8	1009	247	56	1268
Car-coupling device.....	E. A. Morrow.....	449,423	Mar. 31	3519	886	54	1819
Car-coupling, Electric.....	J. D. Collier and J. K. P. Miller.....	462,807	Nov. 10	930	{ 242 243 }	57	740
Car-coupling implement.....	T. J. Thorp.....	444,548	Jan. 13	896	233	54	186
Car-coupling, Steam or air.....	J. Blattner.....	457,246	Aug. 4	497	131	56	626
Car-couplings, Carrying-iron for.....	T. L. McKeen.....	454,754	June 23	2392	614	55	1627
Car-couplings, Lever-bracket for.....	T. L. McKeen.....	447,578	Mar. 3	503	124	54	1212
Car-couplings, Operating device for.....	J. Timms.....	463,358	Nov. 17	1815	474	57	918
Car-couplings, Machine for cleaning.....	F. O. Donabue.....	458,949	Sept. 1	620	153	56	1186
Car-door.....	J. W. Crumbaugh and L. C. Prater.....	461,739	Oct. 20	1943	{ 482 483 }	57	385
Car-door.....	L. Dellieres and W. H. Romick.....	443,990	Jan. 6	4	1	54	3
Car-door.....	G. G. Geiger.....	449,155	Mar. 31	3044	769	54	1732
Car-door.....	A. G. Gray.....	466,164	Dec. 29	3468	886	57	1836
Car-door.....	W. W. Holmes.....	452,570	May 19	1824	458	55	934
Car-door.....	H. Jordan.....	456,537	July 21	1971	520	56	393
Car-door.....	J. Miller.....	460,309	Sept. 29	2778	692	56	1630
Car-door.....	F. A. Moore.....	464,624	Dec. 8	945	233	57	1325
Car-door.....	J. L. Stagg.....	463,204	Nov. 17	1567	{ 408 409 }	57	871
Car-door.....	R. W. Thickins.....	450,125	Apr. 7	702	177	55	137
Car-door.....	J. C. Wands.....	459,665	Sept. 15	1786	449	56	1426
Car-door fastener.....	P. W. Connor.....	464,242	Dec. 1	370	90	57	1204
Car-door fastener.....	H. E. and H. E. Hoke.....	463,511	Nov. 17	2040	535	57	964
Car-door fastening device.....	M. Z. Sims.....	451,702	May 5	395	96	55	654
Car-door fixture, Freight.....	F. J. Cole and E. W. Grieves.....	444,242	Jan. 6	424	106	54	83
Car-door, Freight.....	E. L. Phipps.....	463,127	Nov. 10	1448	374	57	841
Car-door, Freight or grain.....	G. C. Dougherty.....	450,559	Apr. 14	1371	338	55	270
Car-door, Grain.....	H. G. Epps.....	464,709	Dec. 8	1094	271	57	1353
Car-door, Grain.....	E. A. Hill.....	454,212	June 16	1546	407	55	1459
Car-door, Grain.....	W. F. Lyon.....	456,381	July 21	1720	455	56	345
Car-door, Grain.....	L. F. Martin.....	452,798	May 26	2188	549	55	1014
Car-door, Grain.....	J. F. McGhee.....	464,078	Dec. 1	111	27	57	1158
Car-door, Grain.....	D. D. Miles.....	463,637	Nov. 24	2270	598	57	1016
Car-door, Grain.....	C. A. Schroyer.....	450,430	Apr. 14	1198	{ 292 293 }	55	235
Car-door hanger.....	P. Allain.....	457,691	Aug. 11	1238	318	56	773
Car-door latch.....	O. P. Hix.....	447,182	Feb. 24	2767	685	54	1074
Car-door lock.....	L. Colburn.....	458,414	Aug. 25	2437	594	56	1016
Car-door lock.....	O. P. Hix.....	453,004	May 26	2524	639	55	1078
Car-door lock.....	C. H. Ives.....	460,798	Oct. 6	415	102	57	82
Car-doors, Bracket-support and stop for.....	F. J. Cole and E. W. Grieves.....	444,274	Jan. 6	466	119	54	92
Car, Double-deck stock.....	B. C. Hicks.....	449,621	Mar. 31	3841	{ 961 962 }	54	1879
Car, Double-deck stock.....	B. C. Hicks.....	451,682	May 5	367	90, 91	55	649
Car, Double-deck water and feed stock.....	J. F. Butz.....	452,259	May 12	1316	{ 329 330 }	55	831
Car draft-pole, Horse.....	J. M. Blondell.....	449,646	Mar. 31	3879	970	54	1887
Car draw-bar.....	L., Sr., and C. O. Barnes.....	453,802	June 9	981	255	55	1342
Car draw-bar.....	P. Brown.....	465,015	Dec. 15	1585	404	57	1458
Car draw-bar.....	G. F. Gage.....	458,569	Sept. 1	35	7	56	1072
Car draw-bar.....	J. M. Maxwell.....	450,247	Apr. 14	910	225	55	181
Car draw-gear, Railway.....	G. L. Harvey.....	447,323	Mar. 3	67	18	54	1131
Car draw-gear, Railway.....	G. L. Harvey.....	447,324	Mar. 3	68	18, 19	54	1131
Car draw-gear, Railway.....	G. L. Harvey.....	462,911	Nov. 10	1103	{ 287 288 }	57	773
Car draw-iron, Horse.....	J. M. Blondell.....	449,644	Mar. 31	3877	970	54	1886
Car, Drier.....	P. Arnold.....	453,953	June 9	1172	306	55	1380
Car driving-gear, Electric street.....	C. M. Conradson.....	448,910	Mar. 24	2670	671	54	1652
Car-dump, Automatic.....	J. Story.....	463,006	Nov. 10	1242	{ 323 324 }	57	800
Car, Dumping.....	W. F. Bennett.....	449,030	Mar. 24	2848	724	54	1687
Car, Dumping.....	W. T. Cooper.....	449,524	Mar. 31	3668	{ 921 922 }	54	1848
Car, Dumping.....	G. Gibbs.....	461,607	Oct. 20	1726	423	57	345
Car, Dumping.....	P. E. Glafcke.....	465,759	Dec. 22	2796	716	57	1697
Car, Dumping.....	J. M. Goodwin.....	454,863	June 30	2574	{ 661 662 }	55	1666
Car, Dumping.....	J. M. Goodwin.....	458,752	Sept. 1	306	75	56	1124
Car, Dumping.....	S. D. King.....	460,974	Oct. 13	676	{ 174 175 }	57	139
Car, Dumping.....	S. D. King.....	460,975	Oct. 13	678	{ 175 176 }	57	139
Car, Dumping.....	M. O'Connor.....	463,956	Nov. 24	2766	717	57	1109
Car, Dumping.....	C. D. Page.....	463,869	Nov. 24	2634	686	57	1083
Car, Dumping.....	C. Schmalzrid.....	460,450	Sept. 29	2976	744	56	1668
Car, Dumping.....	J. J. Souder.....	463,173	Nov. 17	1522	396	57	863
Car, Dumping.....	J. J. Souder.....	464,086	Dec. 1	120	30	57	1160
Car, Dumping.....	J. J. Souder.....	464,087	Dec. 1	122	31	57	1160
Car, Dumping.....	J. J. Souder.....	464,639	Dec. 8	966	{ 239 240 }	57	1330
Car-dumping mechanism.....	J. Weaver.....	464,906	Dec. 8	1376	346	57	1407
Car, Electric-motor.....	E. M. Bentley.....	454,021	June 16	1271	330	55	1406
Car, Electric-motor.....	H. P. Brown.....	449,752	Apr. 7	167	41, 42	55	34
Car, Electric-motor.....	F. A. Pocock.....	450,189	Apr. 14	792	{ 200 201 }	55	161
Car, Electric-railway.....	E. M. Bentley.....	444,480	Jan. 13	782	204	54	164
Car, Electric-railway.....	E. M. Bentley.....	454,020	June 16	1270	330	55	1405
Car, Electric-railway.....	R. M. Hunter.....	445,144	Jan. 20	1875	485	54	381
Car, Electric-railway.....	L. A. McCarthy.....	444,539	Jan. 13	880	228	54	183

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr't	Vol.	Page.
Car. Electric-railway	S. H. Short	452,622	May 19	1905	479	55	950
Car. Electrically-propelled	R. M. Hunter	446,817	Feb. 17	2123	527	54	947
Car. Electrically-propelled	R. M. Hunter	451,155	Apr. 28	2342	581	55	479
Car. Electrically-propelled	S. H. Short	451,980	May 12	828	212	55	743
Car. Express	P. P. Doering	460,744	Oct. 6	339	83, 84	57	67
Car. Express	W. S. Kisinger	453,645	June 9	736	190	55	1295
Car fan. Railway	E. P. Putnam	461,712	Oct. 20	1904	471	57	378
Car-fender	L. Bertsche and A. Ortner	463,438	Nov. 17	1943	507	57	944
Car fender and brake. Combined street	G. T. Hall	446,227	Feb. 10	1182	289	54	745
Car fender. Motor	E. Tiemann	459,425	Sept. 15	1397	349	56	1353
Car fender. Railway	S. S. Putnam, Jr.	452,530	May 19	1766	444	55	923
Car-fender. Street-railway	R. H. Marsh	465,383	Dec. 15	2204	564	57	1572
Car floor. Cattle	F. M. Canda	465,751	Dec. 22	2785	711	57	1695
Car for electric railways. Motor	T. E. Adams	463,359	Nov. 17	1816	475	57	919
Car for electric railways. Motor	S. H. Short	452,035	May 12	924	236	55	761
Car for street-railways. Cable	W. Robinson	444,184	Jan. 6	339	82, 83	54	69
Car for underground electric systems. Motor	J. J. Miller	454,178	June 16	1497	392	55	1449
Car-framing	T. A. Bissell	457,486	Aug. 11	939	238	56	714
Car. Freight	F. A. Cutting	453,579	June 2	624	159	55	1265
Car gate. Railway	F. C. Cash	456,017	July 14	1156	302	56	227
Car gate. Railway	R. D. Wilson	454,935	June 30	2729	696	55	1695
Car-gear	M. G. Hubbard	450,726	Apr. 21	1670	403	55	341
Car gear. Railway	J. M. Blondell	449,643	Mar. 31	3875	969	54	1886
Car gearing. Electric-motor	O. F. Evans	465,592	Dec. 22	2547	649	57	1648
Car girder-brake	J. Stephenson	450,847	Apr. 21	1872	457	55	379
Car. Gondola	F. E. Canda	453,900	June 9	1100	288	55	1364
Car grip. Cable	G. B. Hansell and M. S. Gill	458,574	Sept. 1	42	8, 9	56	1073
Car grips. Removable shoe for cable	C. Fitzgerald	464,924	Dec. 8	1397	352	57	1411
Car-guard	M. J. Daly	460,082	Sept. 22	2422	605	56	1555
Car-guard. Safety	A. J. Brown	466,115	Dec. 29	3382	864	57	1819
Car-guard. Safety	L. J. De Pay	453,768	June 9	930	241	55	1332
Car guard. Street-railway	F. W. Wood and J. Fowler	445,236	Jan. 27	2021	521	54	419
Car. Hand	J. W. Ballard	462,389	Nov. 3	277	68	57	603
Car. Hand	E. Courtright	456,982	Aug. 4	90	22	56	550
Car. Hand	T. Lo Casto	460,558	Oct. 6	21	5	57	6
Car. Hand	C. Roberts	446,713	Feb. 17	1962	489	54	913
Car. Hand	C. Roberts	446,714	Feb. 17	1963	489	54	913
Car. Hand	C. Roberts	446,716	Feb. 17	1965	490	54	913
Car. Hand	C. Roberts	455,577	July 7	454	119	56	88
Car. Hand	C. Roberts	455,578	July 7	457	120	56	89
Car. Hand	C. Roberts	455,579	July 7	459	120	56	89
Car. Hand	C. Roberts	462,508	Nov. 3	449	110	57	636
Car. Hand	C. Roberts	462,509	Nov. 3	450	110	57	636
Car hand-strap. Street	C. J. Phillips	459,256	Sept. 8	1111	271	56	1288
Car-heater	W. C. Baker	449,306	Mar. 31	3294	833	54	1778
Car-heater	J. F. McElroy	452,349	May 12	1467	363	55	859
Car-heater	J. F. McElroy	462,502	Nov. 3	440	108	57	634
Car heater. Railway	W. C. Baker	457,920	Aug. 18	1636	428	56	857
Car heater. Railway	W. C. Baker. (Reissue)	11,202	Nov. 17	2221	585	57	997
Car-heating apparatus	W. C. Baker	447,100	Feb. 24	2605	647	54	1045
Car-heating apparatus	R. M. Dixon	457,706	Aug. 11	1264	326	56	778
Car-heating apparatus	H. A. Lewis	465,713	Dec. 22	2725	695	57	1632
Car-heating apparatus	J. O. C. Searle	461,280	Oct. 13	1139	290	57	227
Car-heating apparatus	J. O. C. Searle	461,281	Oct. 13	1140	291	57	227
Car-heating apparatus	J. O. C. Searle	461,282	Oct. 13	1141	291	57	228
Car-heating apparatus	J. O. C. Searle	461,283	Oct. 13	1142	291	57	228
Car-heating apparatus	J. H. Sewall	445,090	Jan. 20	1784	459	54	364
Car-heating apparatus. Freight	P. Putnam and A. G. Sargent	464,354	Dec. 1	393	94	57	1209
Car heating apparatus. Railway	C. H. Robinson	462,740	Nov. 10	818	213	57	718
Car-house hanger	C. A. Lieb	454,487	June 23	1966	512	55	1547
Car-indicator	P. J. Boris	444,040	Jan. 6	94	24	54	22
Car. Insulated electric	J. Stephenson	450,846	Apr. 21	1871	457	55	378
Car-journals. Cap for lubricating-boxes for	J. Parker	460,923	Oct. 6	601	152	57	117
Car-label holder. Self-locking freight	D. R. Proctor	457,031	Aug. 4	151	36	56	562
Car-lamp box	J. H. White	448,899	Mar. 24	2656	667	54	1649
Car-lighting apparatus. Electric	B. J. Jones	451,732	May 5	441	107	55	663
Car-lighting. Electric	L. F. Jordan	455,954	Feb. 3	712	173	54	652
Car-links. Machine for making	M. E. Elliott	459,746	Sept. 22	1910	462	56	1457
Car-loader	E. S. Collins	466,003	Dec. 29	3220	820	57	1786
Car mechanism. Electric	W. E. Badger	458,800	Sep. 1	377	91	56	1137
Car. Metallic railway	G. W. Dithridge	464,314	Dec. 1	490	117	57	1226
Car-mileage register	C. C. Gale, R. Cowles, and A. W. Davies	456,650	July 28	2156	571	56	437
Car-mileage report	C. C. Gale, R. Cowles, and A. W. Davies	455,157	June 30	3197	811	55	1786
Car. Mining	J. A. Bickford	452,464	May 19	1669	418	55	905
Car. Mining	C. Burns	453,107	May 26	2697	680	55	1113
Car. Motor	T. C. Oakman	460,009	Dec. 29	3227	822	57	1788
Car motor. Electric	J. Christiansen	452,176	May 12	1192	301	55	806
Car motor. Electric	C. O. Mailloux	457,357	Aug. 11	729	186	56	674
Car-motor. Electric	G. Willett	461,228	Oct. 13	1066	269	57	212
Car motor. Electric street	J. F. Shawhan	453,216	June 2	53	14, 15	55	1158

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Car-motor jacket. Electric	J. Stephenson	454,888	June 30	2629	674	55	1676
Car-motor mechanism. Electric	S. H. Short	460,040	Sept. 22	2358	590	56	1542
Car-motor. Street	W. E. Prall	457,792	Aug. 18	1415	367	56	816
Car-motor. Street	W. E. Prall	457,793	Aug. 18	1416	367	56	817
Car-motor. Street	T. Roberts	445,756	Feb. 3	396	100	54	591
Car-motors. Circuit-connection for electric	A. A. Ingraham	455,019	June 30	2984	733	55	1725
Car-motors. Friction-gear for electric	C. O. Mailloux	457,359	Aug. 11	736	188	56	676
Car-motors. Mounting for electric	E. W. Rice, Jr.	444,922	Jan. 20	1530	393	54	314
Car-motors. Mounting for electric	S. H. Short	451,981	May 12	831	212	55	744
Car-motors. Switch for electric	S. H. Short	456,254	July 21	1508	400	56	305
Car-mover	R. W. Drinker	455,035	June 30	2914	741	55	1731
Car-mover	T. F. Evans	458,889	Sept. 1	538	131	56	1168
Car-mover	E. A. Munson	464,379	Dec. 1	580	142	57	1244
Car-mover	A. J. Tallas and A. Swenson	460,167	Sept. 29	2559	638	56	1588
Car. Nursery and lawn	J. A. Elliott	463,891	Nov. 24	2667	695	57	1089
Car. Observatory	T. J. McBride	447,785	Mar. 10	832	207	54	1282
Car or vehicle for pleasure-railways, toboggan-slides, &c.	H. Bormann	450,659	Apr. 21	1576	379	55	324
Car. Ore	J. V. Ericson	454,577	June 23	2104	543	55	1572
Car. Passenger	C. O. Allen and W. H. Wellman	451,905	May 12	715	181	55	721
Car. Passenger	G. T. Howard	450,073	Apr. 7	625	158	55	122
Car. Passenger	C. A. Preston	446,554	Feb. 17	1725	423	54	867
Car. Passenger	J. D. S. Reed	461,132	Oct. 13	890	231	57	179
Car platform. Freight	T. C. Tyrrell	449,452	Mar. 31	3565	899	54	1828
Car-platform gate	G. C. Bushman	447,102	Feb. 24	2608	648	54	1046
Car-platform gate	S. B. Fuller	446,514	Feb. 17	1663	406	54	855
Car-platforms. Folding gate for	J. A. Brill	457,933	Aug. 18	1660	434	56	862
Car. Poultry	W. P. Jenkins and F. X. Mudd	444,266	Jan. 6	456	115	54	90
Car propelled by electricity	S. H. Short	456,970	Aug. 4	72	17, 18	56	547
Car-propelling system	W. S. Johnson	461,536	Oct. 20	1627	397	57	326
Car propulsion. System of	F. G. Wheeler. (Reissue)	11,211	Dec. 22	2892	739	57	1716
Car propulsion. System of street	F. G. Wheeler	453,525	June 2	543	139	55	1250
Car-pusher	J. M. Jones	449,632	Mar. 31	3857	966	54	1883
Car-pusher	C. M. Kimball	444,443	Jan. 13	721	189	54	151
Car. Railway	J. A. Brill	446,423	Feb. 17	1520	374	54	826
Car. Railway	C. N. Cooke	461,816	Oct. 27	2080	513	57	420
Car. Railway	L. P. Farmer	446,984	Feb. 24	2414	600	54	1009
Car. Railway	W. W. Green	447,053	Feb. 24	2535	630	54	1031
Car. Railway	W. W. Green	447,054	Feb. 24	2536	630	54	1031
Car. Railway	L. J. Harris	451,244	Apr. 28	2504	617	55	510
Car. Railway	L. J. Harris	453,594	June 2	649	167	55	1270
Car. Railway	B. S. Henning	446,065	Feb. 10	909	221	54	697
Car. Railway	H. F. Heuer	446,449	Feb. 17	1565	385	54	835
Car. Railway	E. B. Macmillan	459,896	Sept. 22	2150	541	56	1504
Car. Railway	H. Marshal	446,070	Feb. 10	917	224	54	698
Car. Railway	A. J. McMaster	451,510	May 5	100	25	55	598
Car. Railway	S. J. Rosenfeld	457,444	Aug. 11	861	223	56	701
Car. Railway	W. C. Whitner	454,099	June 16	1380	360	55	1426
Car. Railway freight	J. C. Kenney	445,526	Jan. 27	2442	636	54	501
Car. Railway hand	J. H. Baker	462,190	Oct. 27	2658	666	57	531
Car. Railway live-stock	J. E. Hughes	454,822	June 23	2510	646	55	1647
Car registering apparatus. Street	H. G. Canfield	447,806	Mar. 10	878	219	54	1291
Car-replacer	E. Descomps	448,137	Mar. 10	1401	358	54	1394
Car-replacer	J. M. Donnelly	464,432	Dec. 1	651	160	57	1258
Car-replacer	J. A. McCray	457,972	Aug. 18	1727	452	56	874
Car-replacer	A. G. McKimney	444,783	Jan. 13	1258	326	54	253
Car-replacer	J. McQuillan	462,152	Oct. 27	2599	647	57	520
Car-replacer	J. E. Norwood	457,326	Aug. 4	644	169	56	653
Car-replacer	J. W. Reynolds and P. Perkins	446,951	Feb. 24	2359	587	54	998
Car-replacer	D. E. Sherman	456,740	July 28	2381	626	56	478
Car-replacer	W. Stephens and J. Mort	448,090	Mar. 10	1332	341	54	1379
Car-replacer	J. L. White	459,086	Sept. 8	843	204	56	1235
Car-roof	R. L. Couch and R. Otterson	462,375	Nov. 3	253	62	57	599
Car-roof	D. A. Flaherty	452,838	May 26	2246	564	55	1025
Car-roof	C. M. Jennings	446,780	Feb. 17	2059	513	54	933
Car-roof	J. C. Wands	459,664	Sept. 15	1784	448	56	1426
Car-roofing	A. W. Zimmerman	446,244	Feb. 10	1234	301	54	756
Car running-gear. Railway	C. M. Sloan	459,796	Sept. 22	1982	499	56	1470
Car. Safety	A. N. Lampport	453,558	June 2	592	151	55	1259
Car safety attachment	B. C. Seaton	456,126	July 14	1295	340	56	256
Car safety-guard	W. H. La Fontaine	445,897	Feb. 3	627	154	54	635
Car safety-platform. Railway	S. L. Davis	446,129	Feb. 10	1012	250	54	717
Car-seal	L. A. Foote	464,174	Dec. 1	251	61	57	1183
Car-seal	C. L. Wheeler	446,107	Feb. 10	972	239	54	708
Car-seal	C. L. Wheeler	446,653	Feb. 17	1870	464	54	895
Car-seal	E. S. Wheeler, Jr.	460,766	Oct. 6	368	91	57	72
Car-seat	E. L. Bushnell	456,015	July 14	1149	300	56	226
Car-seat	E. L. Bushnell	461,179	Oct. 13	970	250	57	192
Car-seat	H. Cochran	461,544	Oct. 20	1637	400	57	328
Car-seat	G. W. Cushing	459,881	Sept. 22	2127	534	56	1499

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Car-seat.....	E. N. Giffillan.....	448,424	Mar. 17	1898	477	54	1498
Car-seat.....	H. S. Hale.....	459,564	Sept. 15	1611	404	56	1393
Car-seat.....	H. S. Hale.....	459,578	Sept. 15	1634	409	56	1397
Car-seat.....	F. H. Henry.....	461,198	Oct. 13	1008	257	57	200
Car-seat.....	F. H. Henry.....	466,302	Dec. 29	3684	941	57	1876
Car-seat.....	J. S. Johnston.....	450,672	Apr. 21	1598	384	55	328
Car seat or cushion.....	H. S. Hale.....	456,764	July 28	2360	621	56	474
Car seat. Railway.....	F. W. Bailey.....	451,357	Apr. 28	2673	662	55	542
Car seat. Railway.....	H. Hawes.....	451,690	May 5	379	93	55	651
Car seat. Railway.....	J. C. Mitchell.....	444,132	Jan. 6	255	61	54	52
Car seats. Berth-support for sleeping.....	J. C. Morrison.....	446,637	Feb. 17	1842	457	54	80
Car seats. Package-holder for railway.....	S. B. Morris.....	462,723	Nov. 10	797	208	57	713
Car service. Street.....	T. H. J. Cruise.....	446,731	Feb. 17	1991	497	54	918
Car-signal.....	M. A. Gerber.....	463,036	Nov. 10	1288	334	57	810
Car. Single-rail railway.....	J. B. Mahana.....	461,763	Oct. 20	1984	491	57	394
Car. Sleeping.....	E. G. Allen.....	445,870	Feb. 3	588	144	54	627
Car. Sleeping.....	E. G. Allen.....	446,315	Feb. 10	1346	328	54	778
Car. Sleeping.....	M. H. Throop, Jr.....	444,468	Jan. 13	764	199	54	160
Car-spring.....	E. Cliff.....	457,074	Aug. 4	227	58	56	576
Car-spring.....	P. N. French.....	459,249	Sept. 8	1103	269	56	1287
Car-spring.....	E. Peckham.....	456,592	July 28	2057	544	56	417
Car-spring.....	L. Pfingst.....	462,958	Nov. 10	1181	306	57	788
Car-spring.....	L. Pfingst.....	462,971	Nov. 10	1202	313	57	792
Car-spring check.....	W. Robinson.....	444,182	Jan. 6	335	81	54	68
Car-starter.....	J. T. Baird.....	451,906	May 12	721	1-1	55	722
Car-starter.....	P. Flood.....	456,762	July 28	2357	690	56	474
Car-starter.....	H. P. Wayman.....	459,803	Sept. 22	1993	501	56	1473
Car-starter.....	A. Wilke.....	446,725	Feb. 17	1982	494	54	916
Car starter and brake.....	W. Giffard.....	449,285	Mar. 31	3251	824	54	1771
Car starter and brake.....	S. Joh and W. Barlow.....	466,242	Dec. 29	3579	915	57	1857
Car starter and brake.....	E. B. Phillips.....	457,790	Aug. 18	1409	365	56	815
Car starter and brake.....	F. J. Stafford.....	464,111	Dec. 1	156	39	57	1167
Car steam-heating pipes. Coupling for rail.....	M. Kennedy.....	458,250	Aug. 25	2154	528	56	964
Car-step.....	H. C. Farquharson.....	459,169	Sept. 8	986	241	56	1263
Car-step.....	E. E. Fashion.....	447,304	Mar. 3	30	8	54	1124
Car-step.....	C. Freese.....	459,171	Sept. 8	989	242	56	1264
Car-step.....	C. Freese.....	459,172	Sept. 8	990	242	56	1264
Car-step.....	H. Lutz.....	462,496	Nov. 3	431	105	57	633
Car-step. Adjustable.....	D. W. Clark.....	463,481	Nov. 17	2001	524	57	956
Car step and gate. Combined.....	W. E. Ludlow.....	462,769	Nov. 10	866	227	57	727
Car-step. Extension.....	W. N. Candee.....	464,491	Dec. 8	746	182	57	1286
Car step-hanger. Street.....	L. Pfingst.....	458,373	Aug. 25	2373	578	56	1003
Car step. Railway.....	H. C. Farquharson.....	459,170	Sept. 8	987	241	56	1264
Car. Stock.....	G. D. Burton.....	450,138	Apr. 14	726	182	55	148
Car. Stock.....	J. F. Elder.....	456,697	July 28	2235	591	56	452
Car. Stock.....	B. C. Hicks.....	455,534	July 7	378	97	56	74
Car. Stock.....	B. C. Hicks.....	455,714	July 7	675	178	56	130
Car. Stock.....	B. C. Hicks.....	455,715	July 7	676	178	56	130
Car. Stock.....	B. C. Hicks.....	455,716	July 7	677	179	56	131
Car. Stock.....	J. B. Meadley.....	460,977	Oct. 13	681	176	57	140
Car. Stock.....	J. A. Stewart.....	455,130	June 30	3076	783	55	1763
Car. Stock.....	J. B. Stoner.....	444,058	Jan. 6	118	29	54	26
Car. Stock.....	J. E. Wright.....	456,697	July 7	643	169	56	124
Car-stopping device. Electric.....	G. W. Blanchard.....	449,843	Apr. 7	306	79	55	60
Car-strap. Adjustable.....	B. P. Johnson.....	453,083	May 26	2655	669	55	1103
Car. Street.....	F. Baier and D. R. Hart.....	447,240	Feb. 24	2573	713	54	1095
Car. Street.....	F. B. Brownell.....	462,620	Nov. 3	627	158	57	672
Car. Street.....	G. T. Chapman.....	464,450	Dec. 1	679	167	57	1264
Car. Street.....	G. Moore and J. E. Perfler.....	445,661	Feb. 3	233	63	54	557
Car. Street.....	J. G. Schneider.....	445,941	Feb. 3	696	169	54	649
Car. Street.....	F. W. Smith, Jr., and S. S. Williamson.....	455,842	July 14	888	233	56	179
Car-switch.....	W. Amos.....	448,570	Mar. 17	2116	530	54	1539
Car switch attachment.....	J. M. Pickell.....	458,484	Aug. 25	2547	621	56	1036
Car-track cleaner. Oscillating.....	J. E. Chambers.....	446,326	Feb. 10	1361	332	54	782
Car trolley. Electric.....	W. Duncan.....	454,536	June 23	2048	530	55	1562
Car trolley. Electric.....	W. H. Knight.....	455,798	July 14	822	214	56	167
Car trolley. Electric.....	R. D. Nuttall.....	462,578	Nov. 3	566	137	57	659
Car-uncoupling device.....	S. B. Wortmann.....	453,030	May 26	2563	649	55	1086
Car-ventilating apparatus. Railway.....	R. J. Wilson.....	448,401	Mar. 17	1-62	468	54	1491
Car ventilating device. Railway.....	R. W. Waldrop.....	447,216	Feb. 24	2831	702	54	1087
Car ventilating window.....	F. D. Glover.....	456,561	July 28	2008	530	56	497
Car-ventilator.....	G. Hogg.....	447,071	Feb. 24	2566	637	54	1037
Car. Ve-tibule.....	N. P. Cowell.....	457,472	Aug. 11	909	233	56	708
Car. Vestibule.....	J. K. Griffin.....	455,427	July 7	208	53	54	43
Car. Vestibule.....	B. M. Hodson.....	452,787	May 26	2173	544	55	1011
Car. Vestibule.....	H. M. Jones.....	448,186	Mar. 10	1478	376	54	1409
Car. Vestibule.....	C. S. Smith.....	451,227	Apr. 28	2473	610	55	502
Car. Vestibule.....	H. Tanner.....	450,343	Apr. 14	1060	260	55	209
Car. Vestibule.....	S. W. Tanner.....	461,927	Oct. 27	2263	560	57	456
Car-vestibule and step therefor.....	A. J. Barber.....	461,156	Oct. 13	929	240	57	185
Car. Vestibule street.....	J. Stephenson.....	450,848	Apr. 21	1873	458	55	379

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Car warming and ventilating apparatus. Street-.....	J. B. Platt.....	458,982	Sept. 1	678	105	56	1198
Car-wheel.....	M. A. Andrews.....	447,531	Mar. 3	439	107	54	1200
Car-wheel.....	H. M. Boies.....	453,876	June 9	1071	280	35	1359
Car-wheel.....	A. Casazza.....	450,967	Apr. 21	2058	507	35	415
Car-wheel.....	J. R. Davies.....	465,245	Dec. 15	1966	503	37	1529
Car-wheel.....	E. E. Josef.....	465,096	Dec. 15	1728	439	37	1483
Car-wheel.....	F. J. Kost.....	459,976	Sept. 22	2262	568	56	1524
Car-wheel.....	W. J. Parmelee.....	456,635	July 28	2132	564	56	432
Car-wheel.....	W. A. Pearson.....	449,823	Apr. 7	276	72	55	55
Car-wheel.....	J. Player.....	446,571	Feb. 17	1748	430	54	872
Car-wheel.....	G. W. Seylar.....	457,094	Aug. 4	254	66	56	582
Car-wheel.....	W. H. Silverthorn.....	448,683	Mar. 24	2314	580	54	1584
Car-wheel.....	J. A. Webber.....	461,859	Oct. 27	2139	527	57	432
Car-wheel.....	B. J. Westervelt.....	462,872	Nov. 10	1040	269	57	761
Car-wheel and making the same. Cast-iron.....	N. Washburn.....	452,817	May 26	2217		55	1020
Car wheel and rail.....	F. W. Choate.....	457,703	Aug. 11	1259	325	56	777
Car-wheel chill.....	F. E. Canda.....	463,940	Nov. 24	2747	712 713	57	1105
Car-wheel. Chilled.....	W. W. Lobdell.....	463,426	Nov. 17	1926	503	57	940
Car-wheel lubricator.....	A. W. Ward.....	457,019	Aug. 4	133	32	56	559
Car-wheel mold.....	W. G. Richards.....	451,578	May 5	200	48	55	617
Car wheel. Railway.....	N. Smith.....	464,527	Dec. 8	807	197	57	1298
Cars. Machinery for forming.....	C. B. Beach.....	445,238	Jan. 27	2023	522	54	419
Cars. Anti-friction bearing for.....	C. F. Buschner.....	458,723	Sept. 1	268	63	56	116
Cars. Apparatus for heating railway.....	J. S. Alston.....	445,709	Feb. 3	320	84, 85	54	575
Cars. Automatic band-brake for railway.....	T. Inglis and W. Schiermann.....	445,181	Jan. 27	1941	501	54	403
Cars. Automatic pipe-coupling for railway.....	J. Suydam.....	461,778	Oct. 20	2013	496	57	399
Cars. Automatic pipe-coupling for railway.....	R. W. Ware.....	464,536	Dec. 8	818	201	57	1300
Cars. Automatic track-sweeping and oiling attachment for street.....	J. H. Nesmith.....	452,279	May 12	1343	335	55	836
Cars. Baggage-slide for railway.....	G. D. Sherwin.....	456,601	July 28	2074	548	56	420
Cars. Buffer-platform for.....	T. A. Bissell and C. Bergman.....	457,929	Aug. 18	1654	433	56	860
Cars. Card-case for freight.....	F. J. Cole and E. W. Grieves.....	444,240	Jan. 6	422	106	54	83
Cars. Center-bearing plate for platform.....	C. T. Schoon.....	446,296	Feb. 10	1320	322	54	773
Cars. Combined dust-arrester and ventilator for.....	H. A. Dirkes.....	451,465	May 5	31	8	55	585
Cars. Contact-plow for electric.....	E. M. Bentley.....	461,548	Oct. 20	1641	401	57	329
Cars. Corner-iron for.....	J. H. Evans.....	451,116	Apr. 28	2272	563	55	466
Cars. Current-controlling device for electric-railway.....	J. C. Chamberlain.....	447,230	Feb. 24	2854	708 709	54	1091
Cars. Draft apparatus for.....	M. Carter, Jr.....	451,851	May 5	611	152	55	695
Cars. Draft-guard for.....	E. S. W. Rosenthal.....	460,325	Sept. 29	2802	698	56	1635
Cars. Draft-rigging for.....	W. H. Miner.....	461,443	Oct. 20	1412	356	57	287
Cars. Draw-bar for passenger.....	D. Wythe.....	444,190	Jan. 6	347	85	54	70
Cars. Draw-head and coupling mechanism for railway.....	J. Hatfield.....	451,481	May 5	54	13	55	589
Cars. Driving mechanism for electric-motor.....	S. H. Short.....	452,005	May 12	871	222	55	751
Cars. Driving mechanism for railway.....	F. E. Small.....	453,025	May 26	2556	647	55	1085
Cars. Driving railway.....	B. S. Heuning.....	445,404	Jan. 27	2266	588	54	468
Cars. Dust-guard for railway.....	J. O. Beazley.....	456,371	July 21	1692	446	56	340
Cars. Electric motor for street.....	E. Thomson and E. W. Rice, Jr.....	457,036	Aug. 4	155	37, 38	56	563
Cars. Electrical connection and signal for railway.....	J. D. Collier and J. K. P. Miller.....	462,794	Nov. 10	909	237	57	736
Cars. Fender or life-guard for railway.....	A. B. Hitchcock and C. S. Gooding.....	453,258	June 2	122	33, 34	55	1171
Cars. Fender or safety attachment for electric or other.....	D. Hines.....	450,460	Apr. 14	1236	302	55	242
Cars. Flush door for freight.....	O. P. Hix.....	457,994	Aug. 18	1754	460 461	56	879
Cars. Gate for exit-passages of railway.....	J. H. Fox.....	445,809	Feb. 3	503	121	54	610
Cars. Grain-door for.....	R. W. Thickins.....	449,098	Mar. 24	2950	747 748	54	1707
Cars. Guard for exit-passages of railway.....	J. H. Fox.....	445,808	Feb. 3	502	121	54	610
Cars. Hand-support for.....	F. A. Morley.....	449,262	Mar. 31	3212	810	54	1764
Cars, &c. Heater for railway.....	C. A. Spring, D. Springer, H. T. Spring, and R. Steel.....	464,322	Dec. 1	500	119 120	57	1929
Cars. Heating and ventilating railway.....	W. G. Creamer.....	463,270	Nov. 17	1675	437	57	893
Cars. Heating apparatus for railway.....	H. H. Sessions.....	460,281	Sept. 29	2738	681	56	1623
Cars. Heating railway.....	T. McGrory.....	463,405	Nov. 17	1898	495	57	934
Cars. Label-holder for.....	O. C. Harris.....	458,167	Aug. 25	2020	524	56	339
Cars. Machinery for propelling electric.....	S. H. Short.....	452,036	May 12	928	237 238 172 173	55	762
Cars. Means for heating railway.....	J. Q. C. Searle. (Reissue).....	11,170	June 2	667		55	1274
Cars. Means for heating railway.....	J. Q. C. Searle. (Reissue).....	11,196	Sept. 29	3153	786	56	1704
Cars. Means for ventilating.....	S. Lazarus.....	444,054	Jan. 6	111	28	54	25
Cars. Mechanism for automatically operating end-gates of.....	J. Parker.....	456,904	July 28	2576	677	56	514
Cars. Method of and apparatus for propelling street.....	W. E. and W. E. Prall, Jr.....	449,588	Mar. 31	3766	945	54	1866
Cars. Motor mounting of electric.....	S. H. Short.....	452,621	May 19	1903	478	55	949
Cars. Mounting for motors of electric.....	S. H. Short.....	459,024	Sept. 8	752	182	56	1219
Cars. Movable table for railway.....	H. W. Rosenbaum.....	445,704	Feb. 3	311	82	54	574
Cars or other vehicles. Means for supplying motive power to.....	L. O. Dion.....	461,895	Oct. 27	2201	543	57	444
Cars or vehicles, &c. Gripping mechanism for.....	H. Bormann.....	450,661	Apr. 21	1582	380	55	325
Cars. Pipe-coupling for railway.....	W. G. Ridge.....	448,261	Mar. 17	1617	412 413	54	1444
Cars. Platform-door for.....	H. Howard.....	448,344	Mar. 17	1778	449	54	1475
Cars. Power-brake for railway.....	J. and H. R. Howard.....	458,807	Sept. 1	386	93	56	1139
Cars. Power-transmitting mechanism for.....	A. R. Cavner.....	451,913	May 12	730	183 184	55	724
Cars. Pressed-steel brake-beam and shoe-head for railway.....	C. T. Schoen.....	464,781	Dec. 8	1200	298	57	1372
Cars. Propelling mechanism for electric-motor.....	S. H. Short.....	449,709	Apr. 7	99	26	55	22
Cars. Protecting motor mechanism of electric.....	S. H. Short.....	448,840	Mar. 24	2558	642	54	1636

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Cars. Reversible sign for horse-.....	F. E. Webb.....	449,506	Mar. 31	3642	916	54	1843
Cars. Rheostat for electric-motor.....	S. H. Short.....	459,690	Sept. 15	1817	456	56	1433
Cars. Safety attachment for railway-.....	R. M. Smith.....	449,975	Apr. 7	492	122	55	95
Cars. Safety-gate for street-.....	F. C. Cash.....	450,556	Apr. 14	1367	337	55	270
Cars. Safety-gate for street-.....	H. W. Libbey.....	453,371	June 2	294	77	55	1203
Cars. Safety-grip brake for cable.....	C. E. Naylor.....	451,949	May 12	780	198	55	734
Cars. Safety-guard for sleeping-.....	N. Brown.....	454,202	June 16	1532	403	55	1456
Cars. Sand-box for.....	G. T. Drew.....	458,621	Sept. 1	115	26	56	1088
Cars. Sand-hox for.....	H. F. Parker.....	454,182	June 16	1502	394	55	1450
Cars. Sand-box for.....	W. V. H. Willson.....	444,034	Jan. 6	84	22	54	20
Cars. Sand-box for street-.....	J. M. Harper.....	458,166	Aug. 25	2018	524	56	938
Cars. Sanding apparatus for street-.....	L. Lakin.....	454,983	June 23	2238	586	55	1605
Cars. Sanding device for street-.....	N. Newman.....	457,325	Aug. 4	642	168	56	652
Cars. Stall-partition for stock.....	B. C. Hicks.....	449,740	Apr. 7	148	37	55	30
Cars. Steam-coupling for steam-heating railway-.....	T. W. Moran.....	465,673	Dec. 29	2974	760	57	1740
Cars. Steam-generator for street-.....	F. G. Wheeler. (Reissue).....	11,212	Dec. 22	2893	740	57	1717
Cars. Steam-heating system for railway-.....	J. F. McElroy.....	454,286	June 16	1656	434	55	1480
Cars. Storage-receptacle for.....	G. W. Turner.....	452,247	May 12	1296	325	55	828
Cars. Street and station indicator for.....	G. H. Tietjen.....	456,998	July 14	1253	330	56	247
Cars. Supporting and connecting the driving-motors of electric.....	S. H. Short.....	454,008	June 9	1250	325	55	1395
Cars. Switch device for street-.....	J. Young.....	450,549	Apr. 14	1360	335	55	268
Cars. Switching device for.....	F. C. Cash.....	451,888	May 5	670	169	55	706
Cars. Track-clearing attachment for railway-.....	G. R. and W. H. Perry.....	457,540	Aug. 11	1014	260	56	730
Cars. Transmitting mechanism for motor-.....	C. W. Thomas.....	464,640	Dec. 8	969	240	57	1330
Cars. Trolley-catcher for electric.....	W. L. Browne.....	460,942	Oct. 13	629	162	57	130
Cars. Trolley for electric.....	C. A. Liebo.....	461,840	Oct. 27	2116	521	57	427
Cars. Trolley for railway-.....	E. Verstracte.....	454,532	June 23	2043	528	55	1561
Cars. Trolley-support for electric.....	B. F. Crow.....	448,505	Mar. 17	2022	505	54	1520
Cars. Trolley-support for electric.....	F. Robinson and P. W. J. Lander.....	449,886	Apr. 7	360	91	55	71
Cars. Trolley-wheel support for electric.....	H. A. Webber.....	450,853	Apr. 21	1880	460	55	381
Cars. Truss-rod and draw-bar for.....	C. H. Lasserre.....	457,957	Aug. 18	1700	445	56	870
Cars. Under-frame for.....	S. Fox.....	461,428	Oct. 20	1388	351	57	283
Cars upon the eaves-molding boards. Art of and means for securing the roof-tin of.....	L. J. Harris.....	451,243	Apr. 28	2503	617	55	510
Cars. Ventilating device for railway-.....	A. Minnick.....	461,361	Oct. 13	1272	323	57	254
Cars. Vestibule-hood for.....	T. A. Bissell.....	449,896	Apr. 7	379	96	55	74
Cars. Vestibule-hood for.....	T. A. Bissell.....	453,782	June 9	956	248	55	1337
Cars. Vestibule-hood for.....	A. Feine, C. Koch, and A. Miller.....	454,996	June 30	2849	724	55	1719
Cars. Watering device for stock-.....	S. M. Fischer.....	453,804	June 9	983	256	55	1342
Cars. Watering-trough for stock-.....	B. C. Hicks.....	449,622	Mar. 31	3843	962	54	1880
Carbon battery. Fibrous-.....	J. H. Robertson.....	459,447	Sept. 15	1425	358	56	1358
Carbon-black. Apparatus for the manufacture of.....	E. Binney.....	453,140	May 26	2748	693	55	1121
Carbon brush and holder therefor.....	A. L. Riker.....	455,518	July 7	344	88	56	68
Carbon-clamp for arc lights.....	V. Thomas.....	459,845	Sept. 22	2061	518	56	1487
Carbon. Electric-light.....	W. P. Eltringham.....	457,763	Aug. 11	1369	.....	56	801
Carbon filaments. Manufacture of.....	W. M. B. Keen and W. F. Haarmann.....	445,374	Jan. 27	2219	.....	54	459
Carbon for arc lights.....	B. B. Ward.....	444,471	Jan. 13	768	200	54	161
Carbon for electric lamps.....	W. H. Burns.....	446,660	Feb. 17	1879	.....	54	897
Carbon points. Machine for molding.....	T. B. Dooley.....	452,599	May 19	1870	470	55	943
Carbonated beverages. Machine for making.....	J. F. Wittemann.....	457,978	Aug. 18	1732	454	56	875
Carbonating liquids.....	H. Hübenner.....	455,102	June 30	3033	771	55	1755
Carbonic acid in mixture of gases. Pocket apparatus for determining the amount of.....	H. Wolpert.....	464,543	Dec. 8	828	203	57	1302
Carboys. Tilting support for.....	W. H. Fales.....	459,945	Sept. 22	2221	558	56	1516
Carbureted vapor or gas. Device for regulating the quality of.....	E. J. Frost.....	451,037	Apr. 28	2165	535	55	443
Carburetor.....	G. Hargreaves, J. P. Scranton, and E. W. Porter.....	459,579	Sept. 15	1635	409	56	1398
Carburetor.....	O. Vanorman.....	457,803	Aug. 18	1434	372	56	820
Carburetor and attachment for lamps connected therewith.....	E. J. Frost.....	451,036	Apr. 28	2164	535	55	443
Carburizing metals. Compound for.....	S. H. Brown.....	465,828	Dec. 29	2905	.....	57	1728
Card-board boxes. Apparatus for the manufacture of.....	A. F. Bird.....	456,878	July 28	2544	667	56	508
Card-board boxes. Machine for uniting the sides of.....	J. Weil.....	451,585	May 5	211	51	55	619
Card-board-making machine.....	J. McCoy.....	448,063	Mar. 10	1297	331	54	1371
Card-clothing. Means for adjusting and stretching.....	W. H. Torrey.....	455,672	July 7	601	158	56	117
Card-cutting machine.....	C. A. Wright.....	450,920	Sept. 22	2188	550	56	1510
Card-exhibiting device.....	C. W. Sr. and J. W. Fawkes, Jr.....	446,439	Feb. 17	1548	380	54	831
Card-feeding machine.....	E. V. Bates.....	456,212	July 21	1432	379	56	291
Card-flat.....	J. F. Ross.....	462,121	Oct. 27	2557	635	57	512
Card-holder.....	G. K. Kelsea.....	454,277	June 16	1639	431	55	1477
Card holder or slide.....	J. R. West.....	447,708	Mar. 3	687	171	54	1348
Card-lacing machine. Jacquard.....	G. J. G., and M. O. Rehfuss.....	453,024	May 26	2555	646	55	1084
Card-list.....	J. H. Fezandie.....	454,265	June 16	1622	426	55	1474
Card-mounting machine.....	W. C. Powers.....	448,849	Mar. 24	2579	647	54	1634
Card or ticket case.....	A. A. Low.....	446,069	Feb. 10	915	223	54	698
Card. Playing.....	A. H. Rudd and W. P. Mendenhall.....	449,374	Mar. 31	3227	815	54	1767
Card. Sample.....	J. W. Schloss.....	463,996	Nov. 24	2841	736	57	1123
Card-shuffler.....	E. Falkingham.....	449,316	Mar. 31	3319	837	54	1782
Card-table.....	F. B. Fay.....	456,698	July 28	2237	582	56	432
Card-table.....	J. H. Sanderson, F. T. Mücke, and N. Y. Landis.....	462,933	Nov. 10	1149	297	57	781
Card-table.....	F. Vornbrock.....	463,654	Nov. 24	2300	604	57	1021
Cards. Machine for cutting the edges of.....	C. A. Wright.....	454,554	June 23	2066	534	55	1565

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Cards. Machine for punching Jacquard.....	J. Irish and S. J. Briden.....	453,170	May 26	2809	{ 704 705 706 707 708 527 528	55	1130
Cards. Machine for treating.....	C. A. Wright.....	461,860	Oct. 27	2140	{ 527 528	57	432
Cards or similar articles. Machine for applying metallic leaf to.....	C. A. Wright.....	461,861	Oct. 27	2144	{ 528	57	433
Cards. Playing.....	E. E. Gaddis and T. G. Lewis.....	454,861	June 30	2371	661	55	1566
Carding-engine.....	C. L. Hildreth.....	457,319	Aug. 4	629	166	56	650
Carding-engine.....	C. L. Hildreth.....	458,576	Sept. 1	44	9	10	56
Carding-engine.....	T. Knowles and R. Tatham.....	464,029	Dec. 1	36	10	37	1143
Carding-engine.....	J. E. Platt and W. H. Richardson.....	454,986	June 30	2821	718	55	1713
Carding-engine.....	J. E. Prest.....	449,088	Mar. 24	2935	743	54	1704
Carding-engine.....	C. Whitaker.....	451,351	Apr. 28	2662	{ 659 660	55	541
Carding-engine calendars or delivery rollers. Driving mechanism for.....	R. Ashworth.....	455,088	June 30	3010	765	55	1750
Carding-engine for making mottled yarns.....	R. B. Fowler.....	448,479	Mar. 17	1983	498	54	1514
Carding-engine. Traveling-flat.....	W. P. Canning.....	451,367	Apr. 28	2682	665	55	544
Carding-engine. Traveling-flat.....	W. P. Canning.....	453,060	May 26	2613	661	55	1096
Carding-engine. Traveling-flat.....	W. P. Canning.....	453,061	May 26	2615	661	55	1096
Carding-engine. Traveling-flat.....	W. P. Canning and C. Whitaker.....	451,416	Apr. 28	2758	682	55	558
Carding-engine. Traveling-flat.....	B. H. Dobson and W. I. Bromiley.....	452,993	May 26	2509	{ 635 636	55	1075
Carding-engine. Traveling-flat.....	W. Lord and T. S. Whitworth.....	464,161	Dec. 1	231	56	57	1179
Carding-engine. Traveling-flat.....	J. Stocks and W. Lord.....	465,545	Dec. 22	2475	{ 630 631	57	1634
Carding-engines. Grinding the flats of traveling-flat.....	W. Dobson.....	455,983	July 14	1095	288	56	217
Carding-machine.....	H. Dixon, Sr.....	451,920	May 12	740	186	55	726
Carding-machine.....	I. F. Lawry.....	457,354	Aug. 11	725	{ 185 186	56	674
Carding-machine. Hair.....	F. J. Mauborgne.....	454,175	June 16	1492	391	55	1448
Carding-machine screen.....	S. Shoefelt and J. Mayor.....	461,595	Oct. 20	1713	419	57	342
Carding-machine stopping mechanism.....	J. T. Meats.....	461,171	Oct. 13	957	247	57	190
Carding-machinery.....	E. V. Bates.....	444,720	Jan. 13	1147	295	54	234
Carding-machines. Automatic weighing device for.....	H. Tindell.....	457,570	Aug. 11	1062	271	56	740
Carding-machines. Clutch for.....	J. E. Prest.....	449,087	Mar. 24	2934	743	54	1703
Carding-machines. Flat-supporting device for.....	J. E. Prest.....	446,015	Feb. 10	822	199	54	681
Carding-machines. Means for adjusting bearings of.....	W. Lord and F. Woodhead.....	464,160	Dec. 1	230	55	57	1179
Carding-machines. Shive-extractor for.....	F. O. and H. H. Groves.....	457,512	Aug. 11	973	248	56	721
Carpenter's gage.....	E. C. Van Horn.....	460,236	Sept. 29	2656	602	56	1607
Carpenter's gage.....	A. A. Welsh.....	445,646	Feb. 3	206	55	54	553
Carpet.....	J. W. Priestley.....	446,290	Feb. 10	1302	318	54	770
Carpet and weather strip. Combined.....	J. H. Gingrich.....	463,148	Nov. 17	1478	383	57	855
Carpet-beater.....	R. E. Zimmermann.....	458,090	Aug. 18	1899	494	56	909
Carpet-beating machine.....	J. Hotherhall.....	455,017	June 30	2880	732	55	1724
Carpet-cleaner.....	S. Simmons and J. Tullidge.....	457,674	Aug. 11	1217	313	56	769
Carpet-cleaning apparatus. Pneumatic.....	G. L. Cummings.....	460,935	Oct. 6	619	158	57	121
Carpet-cleaning machine.....	W. Bartholomew.....	459,540	Sept. 15	1574	393	56	1386
Carpet-cleaning machine.....	J. L. Wagner.....	445,209	Jan. 27	1981	512	54	411
Carpet fabric. Ingrain.....	W. B. Keefer.....	444,537	Jan. 20	1349	350	54	280
Carpet fabric. Ingrain.....	H. Patterson and W. Z. Walker.....	457,358	Aug. 4	569	151	56	639
Carpet-fastener.....	F. Frillman, Jr.....	448,220	Mar. 17	1550	396	54	1431
Carpet-fastener.....	H. Grommet.....	451,043	Apr. 28	2177	537	55	446
Carpet-fastener.....	A. R. Hamilton.....	453,635	June 9	724	187	55	1293
Carpet-fastener.....	R. J. Johnson.....	444,201	Jan. 6	362	90	54	73
Carpet-fastener.....	H. E. Leeman.....	447,959	Mar. 10	1132	284	54	1339
Carpet-fastener.....	H. E. Leeman.....	447,960	Mar. 10	1134	285	54	1339
Carpet-fastener.....	G. C. Parmer and A. G. C. Stetson.....	448,068	Mar. 10	1303	333	54	1373
Carpet-fastener.....	S. D. Ridenour.....	452,286	May 12	1356	337	55	838
Carpet-fastener.....	A. V. Wiskocil.....	446,198	Feb. 10	1134	278	54	736
Carpet-fastener. Lever.....	B. Irvine.....	458,903	Sept. 1	558	135	56	1172
Carpet-fastener. Stair.....	W. G. Collins.....	444,529	Jan. 13	959	249	54	199
Carpet-fastener. Stair.....	W. G. Collins.....	456,285	July 21	1558	412	56	315
Carpet holding and sewing apparatus.....	R. M. Hunter.....	460,504	Sept. 29	3075	771	56	1685
Carpet-lining.....	A. H. Meech.....	448,978	Mar. 24	2767	699	54	1671
Carpet-lining, &c.....	A. H. Meech.....	448,979	Mar. 24	2767	699	54	1671
Carpet or oil-cloth stretcher.....	A. R. Anderson.....	444,415	Jan. 13	686	179	54	143
Carpet-rag looper.....	J. La Rock.....	461,482	Oct. 20	1535	376	57	309
Carpet-raveling machine.....	J. F. Kieswetter.....	456,147	July 21	1333	{ 353 354	56	272
Carpet-renovator.....	I. T. Barton.....	464,414	Dec. 1	631	155	57	1254
Carpet-stiffener.....	M. Lincoln.....	456,002	July 14	1126	295	56	222
Carpet-stretcher.....	C. H. Hurlbut.....	456,491	July 21	1873	{ 500 501	56	377
Carpet-stretcher.....	G. A. May.....	444,100	Jan. 6	189	47	54	39
Carpet-stretcher.....	D. H. McFall's.....	444,503	Jan. 13	828	216	54	173
Carpet-stretcher.....	W. W. Patterson.....	451,571	May 5	189	46	55	616
Carpet-stretcher.....	W. A. Pool.....	448,992	Mar. 24	2786	705	54	1675
Carpet-stretcher.....	D. Rice.....	452,508	May 19	1730	436	55	916
Carpet-stretcher.....	J. W. Rounkles.....	450,432	July 21	1806	427	56	360
Carpet-stretcher.....	O. Tippy.....	462,781	Nov. 10	856	232	57	730
Carpet stretcher and fastener.....	L. Fleischmann.....	458,682	Sept. 1	213	50	56	1106
Carpet stretcher and tacker.....	T. Keogh and C. F. Lockman.....	463,746	Nov. 24	2437	639	57	1046
Carpet-stretcher. Clamp.....	L. Hinkle.....	456,001	July 14	1125	295	56	222
Carpet-sweeper.....	C. A. Hammett.....	461,631	Oct. 27	2105	519	57	425
Carpet-sweeper.....	G. W. Kelley.....	449,541	Mar. 31	3694	928	54	1853
Carpets. Manufacturing figured pile.....	J. Dunlap.....	446,141	Feb. 10	1033	{ 354 355	54	719
Carriage.....	S. R. Bailey.....	447,752	Mar. 10	769	191	54	1271
Carriage.....	S. R. Bailey.....	460,547	Oct. 6	2	1	57	3
Carriage.....	D. Jeffery.....	465,799	Dec. 22	2848	730	57	1708

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Carriage	H. P. Wells	449,841	Apr. 7	304	79	55	60
Carriage-actuating mechanism	W. H. Phillips	464,587	Dec. 8	889	219	57	1314
Carriage-apron older	C. H. Roberts	458,003	Aug. 18	1777	464	56	884
Carriage attachment. Baby-	W. T. Bumstead	447,660	Mar. 3	620	154	54	1235
Carriage. Baby	A. A. Allardyce	446,726	Feb. 17	1985	495	54	917
Carriage. Baby	F. S. Briggs	444,519	Jan. 13	849	221	54	177
Carriage. Baby	S. P. Davis and J. H. Dicks	455,909	July 14	985	257	56	197
Carriage. Baby	W. Gardner	447,606	Mar. 3	546	135	54	1220
Carriage. Baby	S. and T. Lazarus	460,207	Sept. 29	2617	654	56	1599
Carriage. Baby	I. Tompkins	465,546	Dec. 22	2475	631	57	1635
Carriage-body	F. Ellis	464,720	Dec. 8	1112	275 276	57	1355
Carriage-body	H. A. Mnckle	460,682	Oct. 6	239	59	57	49
Carriage body. Baby	E. Eder	461,742	Oct. 20	1947	483	57	386
Carriage-body-maker's trestle	W. H. Long	459,010	Sept. 8	720	177	56	1214
Carriage-bow	I. N. Topliff	446,938	Feb. 24	2345	583	54	995
Carriage brake. Baby	A. V. Strait	452,087	May 12	1032	261	55	777
Carriage canopy-holder. Child's	A. G. Snell	461,373	Oct. 13	1298	328	57	259
Carriage. Child's	M. Herz	456,490	July 21	1892	500	56	377
Carriage. Child's folding	F. Bornemann	450,362	Apr. 14	1080	266	55	313
Carriage. Collapsible baby-	J. W. Oulton and D. A. Meister	445,599	Feb. 3	125	32	54	535
Carriage. Convertible	G. E. Spare	447,547	Mar. 3	460	113	54	1204
Carriage corner-irons Process of and apparatus for straightening	E. C. Porter	446,950	Feb. 24	2358	566	54	998
Carriage-cover	B. F. Partridge	447,842	Mar. 10	937	235	54	1303
Carriage-curtain attachment	D. Argerbright	448,106	Mar. 10	1353	346	54	1384
Carriage-curtain fastener	F. A. Neider	453,762	June 9	920	239	55	1330
Carriage-curtain fastener	F. A. Neider	453,763	June 9	922	239	55	1330
Carriage-curtain fastener	M. M. Ritch and B. Bryant	462,737	Nov. 10	814	213	57	717
Carriage-curtain fastening	A. F. Ransom	457,841	Aug. 18	1494	389	56	831
Carriage. Folding baby-	A. R. Buckton	444,086	Jan. 6	167	41, 42	54	36
Carriage. Folding baby-	T. Nesom	457,006	Aug. 4	116	29	56	556
Carriage-gear	G. Trombly and J. J. Kinsman	464,050	Dec. 1	62	17, 18	57	1149
Carriage handle. Child's	A. J. Meier	465,702	Dec. 22	2710	691	57	1680
Carriage-jack	C. L. Bellamy	451,686	May 5	375	92	55	650
Carriage-jack	J. B. Walton	461,460	Oct. 20	1445	363	57	294
Carriage-jack and tire-tightener. Combined	J. J. Phare	452,235	May 12	1274	321	55	824
Carriage-seat	J. Currier	460,910	Oct. 6	585	148	57	114
Carriage-seat	C. L. Johnson	465,375	Dec. 15	2193	562	57	1570
Carriage-seat	H. P. Wells and O. Morrill	447,591	Mar. 3	524	128	54	1216
Carriage. Shifting-seat	J. T. Clarkson	446,429	Feb. 17	1533	377	54	829
Carriage-spring	J. D. Brunner	455,736	July 14	726	190	56	143
Carriage-top	G. J. Carpenter	443,931	Mar. 24	2697	680	54	1658
Carriage-top adjuster	W. W. Swan	453,522	June 2	538	138	55	1240
Carriage-top joint	J. T. Groves	444,120	Jan. 6	225	54	54	46
Carriage-top joint	D. T. Smith	445,631	Feb. 3	178	46	54	546
Carriage-top joint	F. Van Patten	456,452	July 21	1833	466	56	366
Carriage-top prop	A. Searls	446,474	Feb. 17	1602	393	54	843
Carriage-tops. Dressing for	W. H. Townsin	464,905	Dec. 8	1375	57	1407	
Carriage-tops. Machine for shaping or forming cores for the bow-sockets of	H. Parker	453,384	June 2	313	82	55	1206
Carriage-tops. Machine for trimming	W. B. Quimby	458,252	Aug. 25	2158	529	56	964
Carriage. Two-seated	F. N. Vanier	463,179	Nov. 17	1532	400	57	865
Carriage. Two-seated	F. N. Vanier	463,180	Nov. 17	1533	400	57	865
Carriage-wheel shield	D. S. Paine	460,053	Sept. 22	2378	594	56	1545
Carriages. Prop-block for	R. C. Taggart	464,594	Dec. 8	899	221	57	1316
Carriages. Shifting rail for	J. C. Parker	452,500	May 19	1717	432	55	913
Carriages. Shifting seat for	J. T. Clarkson	455,738	July 14	728	191	56	149
Carriages. Strap-loop for	D. D. Whitney	445,105	Jan. 20	1812	468	54	369
Carriages. Wheel-locking device for baby-	W. H. Graham and G. R. McDonald	444,432	Jan. 13	707	185	54	148
Carrier:							
See Baggage and parcel carrier.	Dental disk carrier.						
Basket-carrier.	Egg-carrier.						
Bicycle luggage-carrier.	Fence-wire-spool carrier.						
Bicycle parcel-carrier.	Fodder-carrier.						
Bicycle parcel-carrier.	Fruit-carrier.						
Braiding-machine carrier.	Grain-carrier.						
Cartridge-carrier.	Hay-carrier.						
Cash-carrier.	Lumber-carrier.						
Cash and package carrier.	Package-carrier.						
Cash and parcel carrier.	Parcel-carrier.						
Chalk-carrier.	Phonogram-blank carrier.						
Cycle luggage-carrier.	Pneumatic carrier.						
	Sheaf-carrier.						
	Spittoon-carrier.						
	Trace-carrier.						
Carrier and cleaner	J. H. R. Wendel	447,173	Feb. 24	2753	681	54	1071
Cart	M. A. Libbey	451,305	Apr. 28	2597	640 641	55	528
Cart. Ash	D. M. Holmes	457,320	Aug. 4	633	167	56	650
Cart. Ash	D. M. Holmes	466,038	Dec. 29	3280	836 837	57	1799
Cart. Combined barrel and body	H. A. Adams	461,590	Oct. 20	1707	417	57	341
Cart. Dump	A. H. Smith	465,328	Dec. 15	2104	537	57	1554
Cart. Dumping	A. F. Behrman	447,442	Mar. 3	280	70, 71	54	1170
Cart. Dumping	T. Flanagan	446,096	Feb. 10	955	235	54	705
Cart. Dumping	M. L. Senderling	460,255	Sept. 29	2682	668 669	56	1612
Cart. Dumping	F. Weber	448,720	Apr. 7	116	30	55	25
Cart. Hand	C. Z. O'Neill	452,969	May 26	2467	624	55	1068
Cart. Road	G. A. Brice	463,478	Nov. 17	1999	523	57	955
Cart. Road	S. E. Burke	446,508	Feb. 17	1655	404	54	853

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Cart. Road.....	S. E. Burke.....	457,600	Aug. 11	1109	283	56	748
Cart. Road.....	A. R. Chittenden.....	463,096	Nov. 10	1383	357	57	829
Cart. Road.....	W. Clucas.....	460,949	Oct. 13	639	165	57	132
Cart. Road.....	J. Donovan.....	461,158	Oct. 13	932	241	57	186
Cart. Road.....	J. D. Dort.....	448,855	Mar. 24	2593	651	54	1637
Cart. Road.....	C. Fahrney.....	454,859	June 30	2568	666	55	1665
Cart. Road.....	W. H. Fanning.....	445,427	Jan. 27	2301	597	54	471
Cart. Road.....	G. W. Freeman.....	458,021	Aug. 18	1796	469	56	887
Cart. Road.....	C. B. Garrison and S. and J. G. Calhoun.....	455,198	June 30	3200	811	55	1786
Cart. Road.....	M. Halfpenny.....	454,347	June 16	1741	453	55	1496
Cart. Road.....	N. H. Hill.....	451,671	May 5	351	86	55	646
Cart. Road.....	S. B. Irwin.....	449,121	Mar. 31	2994	756 757	54	1724
Cart. Road.....	B. Kern, Jr.....	459,495	Sept. 15	1497	375	56	1372
Cart. Road.....	J. A. Kirkpatrick and G. W. McDaniel.....	455,831	July 14	877	230	56	177
Cart. Road.....	J. H. Lewis.....	462,494	Nov. 3	427	104	57	632
Cart. Road.....	S. J. McDonald.....	444,456	Jan. 13	742	194	54	155
Cart. Road.....	J. R. Mercereau.....	456,581	July 28	2038	539	56	414
Cart. Road.....	H. J. Miller.....	459,098	Sept. 8	874	210 211	56	1243
Cart. Road.....	W. F. Murphy.....	460,648	Oct. 6	181	47	57	38
Cart. Road.....	S. D. Palmer.....	456,056	July 14	1201	316	56	236
Cart. Road.....	W. A. Paterson.....	456,369	July 21	1691	446	56	340
Cart. Road.....	W. L. Pike.....	416,884	Feb. 24	2246	559	54	978
Cart. Road.....	W. L. Pike and B. H. Sykes.....	454,006	June 9	1248	325	55	1394
Cart. Road.....	F. J. Salmon.....	454,687	June 23	2295	588	55	1607
Cart. Road.....	R. D. Scott.....	451,528	May 5	124	31	55	603
Cart. Road.....	R. D. Scott.....	453,214	June 2	51	14	55	1158
Cart. Road.....	R. D. Scott.....	457,621	Aug. 11	1140	291	56	754
Cart. Road.....	R. D. Scott.....	461,645	Oct. 20	1795	442	57	357
Cart. Road.....	H. and W. C. Smith.....	461,395	Oct. 13	1337	337	57	266
Cart. Road.....	H. and W. C. Smith.....	462,644	Nov. 3	665	168	57	679
Cart. Road.....	L. M. Smith.....	454,157	June 16	1467	385	55	1444
Cart. Road.....	L. M. Smith.....	455,860	July 14	911	239	56	184
Cart. Road.....	A. Spencer and L. B. Kitchel.....	456,386	July 21	1737	456	56	346
Cart. Road.....	P. Weyandt, Jr.....	446,310	Feb. 10	1338	326	54	777
Cart. Road.....	J. H. Whitaker.....	444,033	Jan. 6	82	21, 22	54	20
Cart. Road.....	J. H. Whitaker.....	466,110	Dec. 29	3377	863	57	1818
Cart. Road.....	W. H. Whitfield and M. McCormick.....	461,462	Oct. 20	1447	364	57	294
Cart. Road.....	H. M. Willis.....	447,391	Mar. 3	190	50	54	1154
Cartridge.....	P. Ambjörn.....	460,905	Oct. 6	577	146	57	113
Cartridge.....	P. Ambjörn.....	462,611	Nov. 3	614	153	57	669
Cartridge.....	B. Long.....	448,057	Mar. 10	1289	336	54	1370
Cartridge.....	S. McCarthy.....	457,658	Aug. 11	1191	305	56	761
Cartridge.....	M. F. Walker.....	458,026	Aug. 18	1805	471	56	889
Cartridge-belt.....	W. McEntee.....	453,156	May 26	2774	698	55	1126
Cartridge-blast.....	J. A. Hunt.....	455,332	July 7	45	13	56	12
Cartridge-box or case.....	L. F. Bruce.....	452,447	May 19	1630	407	55	899
Cartridge-carrier.....	L. M. R. Daudeteau.....	454,333	June 16	1721	419	55	1493
Cartridge-carrier or charger for repeating small-arms.....	L. M. R. Daudeteau.....	458,825	Sept. 1	433	104	56	1148
Cartridge-crimper.....	W. N. Beardsley and A. D. Moulton.....	458,679	Sept. 1	207	49	56	1105
Cartridge-filler.....	D. T. Llewellyn.....	450,465	Apr. 14	1242	303	55	243
Cartridge-heads and cases. Manufacture of.....	I. Bradley.....	457,767	Aug. 18	1375	355	56	809
Cartridge-holder.....	A. von Wehrstedt.....	464,971	Dec. 15	1492	374	57	1440
Cartridge-loader.....	G. B. Jacobs.....	454,578	June 23	2106	544 545	55	1572
Cartridge-loader. Automatic.....	O. H. and F. C. Bennett.....	458,557	Sept. 1	4	2, 3	56	1066
Cartridge-loading machine.....	G. Ligowsky.....	464,883	Dec. 8	1343	337 338 384	57	1401
Cartridge-loading machine.....	W. B. Pearson, G. D. Phelps, and E. W. Blatchford.....	464,987	Dec. 15	1528	385 386 387	57	1446
Cartridge-loading machine.....	W. E. Phillips.....	461,273	Oct. 13	1125	287	57	224
Cartridge. Metallic.....	M. J. Cuadros.....	444,336	Jan. 6	554	143	54	111
Cartridge. Paper-shell.....	J. Gardner.....	450,454	Apr. 14	1227	300	55	240
Cartridge-reloading implement.....	C. H. Griffith.....	448,228	Mar. 17	1561	396	54	1433
Cartridge-shell crimper.....	G. D. Hunter.....	449,536	Mar. 31	3684	926	54	1851
Cartridge-shell crimper.....	G. D. Hunter.....	449,537	Mar. 31	3686	926	54	1851
Cartridge-shells. Machine for reducing and finishing.....	W. Mason.....	463,403	Nov. 17	1896	494 495	57	934
Cartridge. Submarine.....	I. Schlenker and T. Puskas.....	450,774	Apr. 21	1743	422	55	356
Cartridges. Automatic pouch for.....	G. Minisini.....	457,053	Aug. 4	176	44	56	567
Cartridges. Magazine-holder for.....	A. H. Dean.....	466,298	Dec. 29	3679	940	57	1875
Carving-machine.....	C. J. Carlstrom.....	461,215	Oct. 13	1041	264 265	57	206
Carving-machine.....	S. L. King.....	453,487	June 2	490	126 127	55	1240
Carving-machine.....	W. C. Laver and E. N. Taylor.....	460,340	Sept. 29	2830	704	56	1640
Carving-machine.....	W. Loeffler.....	462,096	Oct. 27	2504	622 623	57	502
Carving-machine.....	S. F. Moore.....	452,144	May 12	1132	287	55	794
Carving-machine.....	S. F. Moore.....	457,165	Aug. 4	354	91	56	601
Carving-machine.....	J. Rohmann.....	444,306	Jan. 6	509	133	54	102
Carving-machine.....	T. L. Smith.....	452,322	May 12	1419	351 352	55	850
Carving-machine.....	T. L. Smith and P. W. Post.....	447,796	Mar. 10	867	215	54	1288
Carving-machine. Wood.....	J. Hunzinger.....	463,836	Nov. 24	2567	668 669	57	1072
Carving-machines. Cutting-tool for.....	F. Snow.....	455,064	June 30	2974	757	55	1744
Carving-machines. Feeding mechanism for.....	T. L. Smith.....	452,241	May 12	1281	323	55	825

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Case:							
See Blacking-case.	Mailing-case.						
Book-case.	Map-case.						
Boot or shoe case.	Map or sheet case.						
Bottle-case.	Medicine-case.						
Burial-case.	Note-case.						
Butter-case.	Opera-glass case.						
Card or ticket case.	Packing-case.						
Cell-case.	Pencil-case.						
Cigar-case.	Piano-case.						
Cigarette-case.	Pocket-case.						
Clock-case.	Sample-case.						
Coin-case.	Screw-case.						
Compartment-case.	Sewing-machine case.						
Display-case.	Shipping-case.						
Egg-cell case.	Show-case.						
Eyeglass-case.	Ticket-case.						
File-case.	Ticket-holding case.						
Filing-case.	Tobacco-case.						
Flour and cereal testing case.	Toilet-case.						
Jewel-case.	Type-case.						
Label-case.	Umbrella-case.						
Lock-case.	Upright case.						
Lock-case.	Watch-case.						
Cash and package carrier	H. M. Weaver	465,686	Dec. 22	2691	686	57	1675
Cash and package carrier	H. M. Weaver	465,687	Dec. 22	2692	686	57	1675
Cash and parcel carrier	A. A. Caille	458,724	Sept. 1	269	64	56	1117
Cash and parcel carrier	D. E. Campbell	455,273	June 30	3313	838	55	1807
Cash and parcel carrier	J. M. Segur and J. R. Haight	445,087	Jan. 20	1779	458	54	363
Cash and parcel carrier	R. F. Shannon	464,462	Dec. 1	728	178	57	1273
Cash and parcel carrying apparatus	H. L. Lovejoy	451,408	Apr. 23	2745	679	55	556
Cash and sales register	J. P. Manton, Jr.	449,164	Mar. 31	3055	773	54	1735
Cash box and tray. Receiver's	B. F. Carman	451,317	Apr. 23	2613	645	55	531
Cash-carrier	S. J. Besthoff	456,394	July 21	1735	458	56	348
Cash-carrier	J. M. Caille	456,980	Aug. 4	88	21	56	550
Cash-carrier	G. T. Farnell	451,471	May 5	42	11	55	587
Cash-carrier	H. Fletter	452,475	May 19	1685	424	55	908
Cash-carrier	E. C. Gipe	465,471	Dec. 22	2333	599	57	1608
Cash-carrier	Z. S. Holbrook	455,330	July 7	43	13	56	11
Cash-carrier	G. A. Milbradt	449,082	Mar. 24	2925	742	54	1701
Cash-carrier	N. Newman	455,349	July 7	73	20, 21	56	19
Cash-carrier	N. Newman	455,350	July 7	75	21, 22, 23	56	19
Cash-carrier	C. C. Rogers	457,610	Aug. 11	1122	286	56	751
Cash-carrier	W. H. Williams	452,469	May 19	1677	422	55	906
Cash-carrier apparatus	T. E. Barrow	462,806	Nov. 10	929	242	57	740
Cash-carrier apparatus	F. J. H. Hazard	466,235	Dec. 29	3571	914	57	1855
Cash-carrier apparatus	A. Iske	447,828	Mar. 10	911	227	54	1297
Cash-carrier. Pneumatic	J. Reilly	460,160	Sept. 29	2547	635	56	1585
Cash-carrying apparatus	H. L. Lovejoy	463,684	Nov. 24	2343	615	57	1029
Cash-controlling apparatus	V. With	453,824	June 9	1004	263	55	1347
Cash drawer and recorder	P. Westphal	450,439	Apr. 14	1210	295	55	237
Cash drawer and recorder. Combined	W. Assheton	445,489	Jan. 27	2386	621	54	491
Cash drawer and recorder. Combined	W. F. Brown	458,384	Aug. 25	2389	583	56	1007
Cash indicating and recording apparatus	E. Schrabetz	452,170	May 12	1181	298	55	804
Cash indicating, recording, and registering machine	C. W. Weiss	447,036	Feb. 24	2505	623	54	1025
Cash indicator and recorder	E. A. Dobbins	456,287	July 21	1561	412, 413	56	315
Cash indicator and recorder	C. Kruse and C. W. Weiss	447,031	Feb. 24	2495	621	54	1023
Cash indicator and recorder	F. Kubec	461,386	Oct. 13	1319	333, 334	57	262
Cash indicator and recorder	J. F. Pfeffer	463,706	Nov. 24	2383	624, 625	57	1036
Cash indicator and recorder. Electric	W. F. Z. Desant	449,108	Mar. 31	2972	751	54	1720
Cash indicator and register	C. Carr	458,615	Sept. 1	103	23, 24	56	1086
Cash indicator and register	J. F. Goodridge	446,343	Feb. 10	1388	339	54	787
Cash indicator and register	C. B. Hopkins	457,199	Aug. 4	412	108, 109	56	611
Cash indicator and register	C. E. Lord	454,972	June 30	2793	712, 713	55	1708
Cash indicator and register	F. A. Messer and W. F. Thorpe	453,122	May 26	2714	684, 685	55	1116
Cash indicator and register	J. H. Schnarrenberger	465,732	Dec. 22	2746	701	57	1688
Cash indicator and register	H. C. Stilwell	462,106	Oct. 27	2533	629, 630	57	507
Cash indicator and register	L. T. Weiss	449,393	Mar. 31	3459	870, 871	54	1807
Cash indicator, register, and recorder	P. Yoe	460,623	Oct. 6	125	32, 33, 34, 35	57	26
Cash-recorder	A. O. Frick	448,481	Mar. 17	1989	498, 499	54	1514
Cash-recorder	C. J. Pasmore	459,935	Sept. 22	2210	555	56	1514
Cash-recorder	J. Tack	452,930	May 26	2397	606	55	1053
Cash-recorder	W. H. Thompson	454,089	June 16	1369	357	55	1424
Cash-register	J. H. Ahrens	449,395	Mar. 31	3464	872, 873	54	1808
Cash-register	C. Angus, M. S. Simmons, and J. R. Nangle	455,916	July 14	995	259	56	199
Cash-register	H. A. Bierley	462,615	Nov. 3	618	155, 156	57	670

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Cash-register	H. Cook	444,334	Jan. 6	548	142	54	110
Cash-register	H. Cook	450,365	Apr. 14	1098	269	55	316
Cash-register	C. H. Drury	446,330	Feb. 10	1370	333 334	54	783
Cash-register	W. H. Gilman	448,020	Mar. 10	1237	314 315	54	1360
Cash-register	W. H. Gilman	448,021	Mar. 10	1240	315	54	1360
Cash-register	W. H. Gilman	461,673	Oct. 20	1839	454 455	57	366
Cash-register	H. A. Herr	443,994	Jan. 6	12	3, 4	54	5
Cash-register	J. D. King	448,242	Mar. 17	1582	404	54	1437
Cash-register	G. F. Kolb	457,727	Aug. 11	1300	338	56	786
Cash-register	W. F. Lamb	456,220	July 21	1445	382	56	293
Cash-register	W. G. Latimer	448,245	Mar. 17	1585	405	54	1438
Cash-register	W. G. Latimer	451,493	May 5	73	19	55	593
Cash-register	T. Munnell. (Reissue)	11,169	June 2	664	171 172	55	1273
Cash-register	R. E. Nelson, Jr.	449,248	Mar. 31	3187	804 805	54	1759
Cash-register	J. E. Wells	466,280	Dec. 29	3644	932	57	1869
Cash-register and check machine	G. B. Massey	446,262	Feb. 10	1261	308 309 310	54	761
Cash register and indicator	G. Boemermann	456,133	July 21	1307	344 345 346	56	268
Cash register and indicator	I. D. Boyer	457,249	Aug. 4	504	133	56	627
Cash register and indicator	C. F. Brown	458,143	Aug. 18	1973	511 512 513	56	922
Cash register and indicator	W. H. Clark	444,391	Jan. 6	639	166 167	54	126
Cash register and indicator	H. Cook	445,671	Feb. 3	249	67 68 69	54	561
Cash register and indicator	H. Cook	448,937	Mar. 24	2705	683	54	1659
Cash register and indicator	H. Cook	450,364	Apr. 14	1083	267 268	55	214
Cash register and indicator	C. D. Grimes	445,672	Feb. 3	264	69, 70	54	564
Cash register and indicator	A. B. Hayden	460,263	Sept. 29	2697	671 672 673	56	1615
Cash register and indicator	G. C. Henry	465,020	Dec. 15	1504	406	57	1459
Cash register and indicator	H. A. Herr	451,232	Apr. 28	2479	612 613	55	504
Cash register and indicator	C. B. Hopkins	465,269	Dec. 15	2006	513 514	57	1535
Cash register and indicator	B. Johnston	446,599	Feb. 17	1782	441 442 443	54	878
Cash register and indicator	D. E. Kempster	450,812	Apr. 21	1805	439 440	55	367
Cash-register and indicator	G. F. Kolb	457,726	Aug. 11	1293	337	56	784
Cash register and indicator	G. F. Kolb	457,728	Aug. 11	1306	339	56	787
Cash register and indicator	W. G. Latimer	458,810	Sept. 1	391	94	56	1140
Cash register and indicator	W. G. Latimer	458,811	Sept. 1	393	95	56	1141
Cash register and indicator	W. G. Latimer	461,636	Oct. 20	1783	439	57	355
Cash register and indicator	C. E. Lord	445,670	Feb. 3	245	67	54	560
Cash register and indicator	M. N. Lovell	445,959	Feb. 3	721	176	54	654
Cash register and indicator	M. N. Lovell	445,960	Feb. 3	725	177	54	654
Cash register and indicator	H. B. Manko and J. W. Paine	450,416	Apr. 14	1176	287 288	55	231
Cash register and indicator	W. C. McGill	446,925	Feb. 24	2322	577	54	991
Cash register and indicator	B. Moser	446,150	Feb. 10	1051	258 259 260	54	722
Cash register and indicator	F. C. Osborn	455,111	June 30	3045	774 775 776	55	1757
Cash register and indicator	E. B. Parkhurst	444,368	Jan. 6	599	154 155	54	119
Cash register and indicator	E. B. Parkhurst	453,746	June 9	891	232 233	55	1325
Cash register and indicator	F. J. Patterson	450,955	Apr. 21	2028	500 501	55	409
Cash register and indicator	J. H. Patterson	452,982	May 26	2490	630 631	55	1072
Cash register and indicator	D. W. Shiek	456,912	July 28	2601	684	56	518
Cash register and indicator	H. C. Stilwell	462,104	Oct. 27	2523	626 627	57	506
Cash register and indicator	H. C. Stilwell	462,105	Oct. 27	2530	628 629	57	507
Cash register and indicator	J. P. Tirrell	452,986	May 26	2496	632 633	55	1073
Cash register and indicator	J. L. Townsley	452,402	May 19	1554	386 387	55	885
Cash register and indicator	O. Tverdal	460,455	Sept. 29	2984	746 747 748	56	1669
Cash register and indicator	S. P. Watt	454,990	June 30	2830	720 721	55	1715
Cash register and indicator	J. J. Webster	447,254	Mar. 10	954	239 240	54	1306
Cash register and indicator	J. J. Webster and W. W. Drew	447,264	Feb. 24	2909	723 724	54	1103
Cash register and indicator	J. J. Webster and K. Hyde	458,541	Aug. 25	2633	641	56	1054

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Cash register and indicator	W. H. and W. W. Wythe	445,582	Feb. 3	96	23, 24	54	530
Cash register and indicator	W. W. and W. H. Wythe	452,043	May 12	948	242	55	764
Cash-register and phonograph. Combined	A. B. Hayden	460,492	Sept. 29	3046	763 764 765	56	1681
Cash register and recorder	F. E. Richardson	464,257	Dec. 1	399	95, 96	57	1210
Cash-register cash-till	W. G. Latimer	461,637	Oct. 20	1784	439	57	355
Cash register, indicator, and recorder	H. Cook	464,294	Dec. 1	458	109 110 111	57	1222
Cash register, indicator, and recorder	A. L. Peirce	450,803	Apr. 21	1789	435	55	364
Cash-register. Pocket	J. L. Brown	455,161	June 30	3133	796	55	1773
Cash register, recorder, and indicator	H. Cook	449,311	Mar. 31	3300	834 835	54	1779
Cash-register system. Electric	R. E. Nelson, Jr.	449,249	Mar. 31	3194	805 806	54	1761
Cash-registers. Card-printing attachment for	W. L. Bundy	457,766	Aug. 11	1371	353 354	56	802
Cash-registers. Key-locking device for	W. G. Latimer	452,845	May 26	2260	567	55	1028
Cash registering and indicating machine	M. R. Longacre	449,328	Mar. 31	3340	842 843	54	1785
Casing-spear	D. W. Black	444,061	Jan. 6	126	31	54	28
Cask or barrel	A. Paternoster	460,026	Sept. 22	2330	584	56	1537
Casks and other vessels. Device for connecting	J. C. Schaefer	458,072	Aug. 18	1870	487	56	903
Casks, barrels, and the like. Mechanism for the manufacture of	S. Wright	452,629	May 19	1918	482	55	952
Casks. Device for sulphuring	J. Mager	459,916	Sept. 22	2183	549	56	1509
Casket-handle	P. G. Ober	457,365	Aug. 11	743	190	56	877
Casket-handle	P. G. Ober and W. B. Houston	457,366	Aug. 11	744	190	56	877
Casket-support	H. J. Breeze	455,093	June 30	3019	767	55	1752
Castanet	O. A. Wheeler	464,684	Dec. 8	1048	262	57	1344
Caster	J. Beazley	453,956	June 9	1176	307	55	1381
Caster	T. Corseaden	452,334	May 26	2238	562	55	1024
Caster	L. Gwinner	456,305	July 21	1588	420	56	320
Caster	G. J. Helmstaedter	445,833	Feb. 3	535	130	54	616
Caster	F. S. McAlister	465,192	Dec. 15	1888	478	57	1512
Caster	D. W. Perkins	455,353	July 7	82	25	56	20
Caster	J. Toler	448,306	Mar. 17	1708	433	54	1462
Caster	G. L. Winship	456,458	July 21	1841	488	56	368
Caster. Furniture	A. E. Brown	455,906	July 14	982	256	56	196
Caster. Furniture	E. G. Hoffmann	461,181	Oct. 13	972	250	57	193
Caster. Furniture	W. Imbt	465,986	Dec. 29	3170	813	57	1778
Caster. Furniture	R. G. Jordan	454,742	June 23	2377	611	55	1624
Caster. Furniture	R. G. Jordan	461,580	Oct. 20	1690	414	57	339
Caster. Furniture	H. McDonald	454,284	June 16	1652	433	55	1479
Caster. Furniture	C. R. Patterson	452,940	May 26	2425	612	55	1060
Caster-socket	G. D. Clark	461,070	Oct. 13	810	207	57	163
Caster-socket	D. F. Crean and W. F. Stone	454,257	June 16	1608	422	55	1471
Casters, door-knobs, and other articles. Fastening for	J. Thimmes. (Reissue)	11,171	June 23	2531	651	55	1650
Casting	J. A. Potter	449,701	Apr. 7	83	21, 22	55	18
Casting	W. G. Richards	451,900	May 5	685	173	55	709
Casting	J. L. Sehenius	444,162	Jan. 6	299	72	54	61
Casting apparatus	W. Ambler	462,422	Nov. 3	329	81	57	613
Casting apparatus	W. Ambler	462,423	Nov. 3	331	81, 82	57	613
Casting apparatus	H. B. Cox	452,343	May 12	1459	361	55	857
Casting apparatus. Stereotype	J. R. Cummings	457,897	Aug. 18	1592	414	56	848
Casting apparatus. Stereotype's	J. R. Cummings	457,896	Aug. 18	1591	414	56	848
Casting apparatus. Vacuum	W. F. Durfee and N. B. Wittman	448,945	Mar. 24	2720	686	54	1662
Casting armor-plates	S. Siemang	450,776	Apr. 21	1749	424	55	357
Casting-box	C. Schraubstadter, Jr., and C. R. Schilling	465,541	Dec. 22	2466	628 629	57	1633
Casting-box. Stereotype	W. B. Lewis	461,141	Oct. 13	903	234	57	181
Casting chilled pipes. Mandrel for	W. C. Westaway	465,035	Dec. 15	1623	413	57	1464
Casting grids for secondary batteries. Machine for	A. F. Madden	457,879	Aug. 18	1561	405 406	56	843
Casting grids. Machine for	A. F. Madden	460,933	Oct. 6	614	156 157 158	57	119
Casting hooks. Device for	E. Kuhn	450,757	Apr. 21	1713	414	55	350
Casting hooks. Pattern for	E. Kuhn	445,812	Feb. 3	507	122	54	611
Casting ingots	W. R. Hinsdale	448,881	Mar. 24	2628	660	54	1643
Casting linotypes. Machine for	W. S. Scudder	444,090	Jan. 6	172	43	54	37
Casting-machine	J. S. Griffin	455,200	June 30	3201	812 813	55	1787
Casting machine. Sash-weight	F. N. Cline	451,707	May 5	401	97, 98	55	655
Casting machine. Stereotype	T. I. Knight and L. Quanchi	451,276	Apr. 23	2558	630	55	520
Casting machine. Type	H. C. Hansen	458,050	Aug. 18	1839	480	56	897
Casting-plant	T. W. Welsh	453,056	May 26	2607	659	55	1095
Casting printers' rollers. Apparatus for	M. F. Bingham	448,629	Mar. 24	2233	560	54	1569
Casting. Sectional core for	M. J. Hughes	460,473	Sept. 29	3019	756	56	1675
Casting steel car-wheels	W. G. Richards	459,048	Sept. 8	790	191	56	1227
Casting steel wheels	W. G. Richards	451,575	May 5	194	47	55	616
Casting steel wheels	W. G. Richards	461,962	Oct. 27	2314	574	57	466
Casting wheels. Method of and mold for	W. G. Richards	451,901	May 5	687	173	55	709
Castings. Mold for making	W. G. Richards	459,047	Sept. 8	788	191	56	1226
Castings. Mold for making flanged wheel	W. G. Richards	459,049	Sept. 8	791	191	56	1227
Cat-guard	J. J. Chattany and C. E. Owens	448,318	Mar. 17	1728	437	54	1466
Catalogue. Card	C. N. Judson	464,877	Dec. 8	1336	335	57	1400
Catamenial sack	A. J. Miller	458,035	Aug. 18	1818	474	56	892
Catamenial sack and supporter	A. Willoughby	463,819	Nov. 24	2541	663	57	1067
Catch. Spring	P. Forg	451,473	May 5	45	11	55	587
Cattle-dehorner	A. W. Hindman	451,049	Apr. 23	2123	539	55	447
Cattle-dehorning compound	R. B. Reeser	453,129	May 26	2728	55	1119

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Cattle-dehorning implement	H. N. Joslyn	456,575	July 28	2029	537	56	412
Cattle-dehorning implement	G. H. Stout	448,092	Mar. 10	1335	341	54	1380
Cattle-guard	C. O. Davidson	450,450	Apr. 14	1224	299	55	240
Cattle-guard	M. Walsh	453,096	May 26	2680	675	55	1109
Cattle-guard	J. Whittemore	460,318	Sept. 29	2793	695	56	1633
Cattle-guard. Surface	F. C. Balch and F. Bush	459,808	Sept. 22	2002	503	56	1474
Cattle-guard. Surface	J. T. Hall	453,807	June 9	988	257	55	1343
Cattle-guard. Surface	H. G. M. Howard and W. H. Shanon.	455,717	July 7	680	179	56	131
Cattle-guard. Surface	L. J. Strait	451,141	Apr. 28	2319	575	55	475
Cattle-guard. Surface	J. K. Wagner	448,804	Mar. 24	2507	628	54	1621
Cattle-rack	J. H. Howard	454,357	June 16	1760	458	55	1500
Caul. Adjustable	W. Gardner	453,592	June 2	646	166	55	1270
Caustic alkali. Making	F. Ellershausen	458,563	Sept. 1	23	5	56	1070
Caustic alkali, &c. Manufacture of	A. Kayser	454,136	June 16	1430	{ 374 375 }	55	1437
Cave	O. O. Walker	465,900	Dec. 29	3029	775	57	1751
Ceiling-block	A. Ekström	462,349	Nov. 3	214	51	57	592
Ceiling-floor. Cohesive	R. Guastavino	464,563	Dec. 8	854	{ 210 211 }	57	1307
Ceiling. Metallic	H. Adler	460,283	Sept. 29	2739	682	56	1623
Ceiling. Metallic	W. R. Kinnear	446,121	Feb. 10	996	{ 245 246 }	54	713
Ceiling. Metallic	W. R. Kinnear	464,694	Dec. 8	1064	264	57	1347
Ceiling. Metallic	J. R. Wilson	450,274	Apr. 14	940	233	55	187
Ceiling-plate	W. H. Stockham	456,682	July 28	2207	585	56	447
Ceiling-plate for steam-risers	J. F. Cotter	458,443	Aug. 25	2481	604	56	1024
Ceilings, walls, &c. Ornamental metal panel for Celery-bleacher	J. H. Ewing	457,310	Aug. 4	614	162	56	617
Cell-case	J. Wilson	446,499	Feb. 17	1642	401	54	851
Cell-case	E. C. Bower	456,353	July 21	1660	439	56	334
Cell-case	D. Quinlan	449,332	Mar. 31	3347	844	54	1786
Cell-case	H. Weis	452,115	May 12	1083	275	55	786
Cellar. Damp-proof and water-tight	P. H. Jackson	462,953	Nov. 10	1172	304	57	786
Cellar-drainer	W. Lee	452,308	May 12	1384	344	55	843
Cellulose films. Producing	J. Williams	444,515	Jan. 13	845	{ 219 220 }	54	176
Cement	J. F. Boynton	448,632	Mar. 24	2237	56	54	1569
Cement. Apparatus for the calcination of	P. Krottnaurer	447,155	Feb. 24	2727	{ 675 676 }	54	1066
Cement-can	O. F. Drew	445,832	Feb. 3	534	130	54	616
Cement for joining the ends of driving-belts	C. Löcher	446,458	Feb. 17	1580	54	54	839
Cement. Manufacture of	H. H. Wing	455,376	July 7	125	33	56	28
Cement. Manufacture of Portland	E. F. Baude	453,753	June 9	905	55	1327	
Cement. Manufacture of Portland	H. C. Baum	446,911	Feb. 24	2305	54	989	
Cement. Manufacturing	C. Tomkins	465,330	Dec. 15	2107	57	1554	
Cement. Manufacturing	G. Williams	449,510	Mar. 31	3648	54	1445	
Cement. Manufacturing hydraulic	J. F. Navarro	464,515	Dec. 8	788	57	1295	
Cement. Manufacturing hydraulic	J. B. Speed	450,750	Apr. 21	1703	55	348	
Cement. Manufacturing Portland	J. F. Navarro	464,516	Dec. 8	789	57	1295	
Cement. Marine	F. C. Goodall	452,182	May 12	1199	55	808	
Cement or mortar mixer	F. S. Baldwin	451,992	May 12	850	{ 217 218 }	55	747
Cement. Preparing and tempering slurry for Portland	G. H. Kälteyer and G. W. Bartholomew, Jr.	460,509	Sept. 29	3090	56	56	1690
Cement. Rotary furnace for burning	J. F. de Navarro	464,514	Dec. 8	787	193	57	1295
Coner	P. Friedrich and A. Kessler	457,490	Aug. 11	948	240	56	716
Coner and invalid's table. Combined	A. M. Currier	454,928	June 30	2719	604	55	1693
Coner-board	C. Hanscom	462,640	Nov. 3	661	167	57	678
Coner-board for vessels	J. Couch	448,503	Mar. 17	2017	504	54	1520
Coner-board for vessels	F. M. Moore	444,501	Jan. 13	824	215	54	172
Coner-piece. Collapsible	C. W. Young	463,376	Nov. 17	1846	483	57	925
Coner-seal and by-pass valve	W. Crighton	448,504	Mar. 17	2019	505	54	1520
Conerter apparatus. Work-	J. Rogers	450,978	Apr. 21	2075	512	55	418
Conerter device	R. C. Nugent	460,883	Oct. 6	539	136	57	106
Conerter tool	G. Wyatt	464,619	Dec. 8	938	231	57	1324
Centrifugal cleaner	L. Wommer	449,788	Apr. 7	222	56	55	45
Centrifugal machine	W. Bodge	459,197	Sept. 8	1024	250	56	1271
Centrifugal machine	R. Fölsche	461,671	Oct. 20	1837	454	57	365
Centrifugal machine	C. J. Jeppesen	456,654	July 28	2165	574	56	439
Centrifugal machine	H. W. Lafferty	449,327	Mar. 31	3339	842	54	1785
Centrifugal machine	T. Long	454,056	June 16	1314	{ 342 343 }	55	1415
Centrifugal machine	T. Müller	455,832	July 14	878	{ 230 231 }	56	177
Centrifugal machine for making pulp tubes	H. W. and H. W. Johns, Jr.	464,218	Dec. 1	333	81	57	1196
Centrifugal separating apparatus	A. Vahlén	447,530	Mar. 3	437	107	54	1200
Centrifugal separating-machine	R. Stanfield and T. Clarkson	459,315	Sept. 8	1199	292	56	1307
Centrifugal separator	C. G. P. de Laval	463,794	Nov. 24	2504	{ 653 654 }	57	1059
Centrifugal separator	G. de Laval	445,066	Jan. 20	1754	452	54	358
Centrifugal separator	H. Stanton	454,408	June 16	1846	483	55	1516
Centrifugal vessels. Balancing	P. M. Sharples	454,072	June 16	1342	351	55	1420
Cereal food and manufacturing it	T. B. Taylor	453,364	June 2	225	76	55	1201
Cereals. Preparation of	F. Lanhoff	451,059	Apr. 28	2195	542	55	450
Chain	R. Paxson	447,620	Mar. 3	570	141	54	1225
Chain and gearing. Sprocket	H. O. Kötter	452,122	May 12	1095	278	55	788
Chain attachment	R. A. Breul	450,807	Apr. 21	1800	437	55	366
Chain attachment	R. A. Breul	455,032	June 30	2909	739	55	1730
Chain-bar. Ornamental	L. Towne	454,629	June 23	2212	569	55	1590
Chain. Boom-locking	C. A. Hanseu	448,880	Mar. 24	2627	660	54	1643
Chain. Conveyor	C. H. Taylor	462,417	Nov. 3	322	79	57	612
Chain. Drive	F. Eckstein, Jr.	459,038	Sept. 8	774	188	56	1224
Chain. Drive	S. Elliott	447,813	Mar. 10	887	222	54	1293
Chain. Drive	H. J. Gilbert	454,998	June 30	2854	726	55	1720

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Chain. Drive.....	A. P. Merrill.....	455,226	June 30	3239	823	55	1794
Chain. Driving.....	C. H. Brampton.....	449,997	Apr. 7	524	130	55	101
Chain elevator and distributing-conveyer. Combined single-endless.....	A. Ritscher.....	453,130	May 26	2729	687 688	55	1119
Chain elevator. Endless.....	B. Arnold.....	465,313	Dec. 15	2079	531	57	1549
Chain-fastening.....	B. S. Freeman, Jr.....	446,593	Feb. 17	1777	438	54	877
Chain. Link-belt.....	T. H. McCray.....	465,142	Dec. 15	1813	459	57	1498
Chain-link. Drive.....	T. Maxon.....	454,176	June 16	1494	392	55	1449
Chain-link. Drive.....	S. H. Vinson.....	465,612	Dec. 22	2579	656	57	1654
Chain-link. Wire.....	O. D. Wright.....	447,597	Mar. 3	532	131	54	1217
Chain-making machine.....	F. P. Cady.....	466,117	Dec. 29	3384	864 865 866	57	1820
Chain. Portable-roof.....	B. M. Steele.....	453,676	June 9	783	202	55	1304
Chain. Portable-stack-roof.....	J. E. Kirk, H. A. Alden, and B. M. Steele.....	455,487	July 7	296	75	56	60
Chain-snap.....	S. E. Kelley.....	459,364	Sept. 8	1279	316	56	1322
Chain swivels. Tool for the manufacture of watch.....	J. E. Potter.....	457,888	Aug. 18	1583	412	56	846
Chain-wheel.....	R. Brown.....	452,767	May 19	2140	536	55	996
Chain-wheel temper.....	W. C. Walls.....	451,146	Apr. 28	2327	577	55	476
Chain-wrench.....	F. B. Ide.....	457,535	Aug. 11	1006	257	56	728
Chain-wrench.....	A. C. Whittier.....	464,167	Dec. 1	241	60	57	1181
Chains by electric welding processes. Manufacturing.....	E. Thomson.....	449,356	Mar. 31	3389	853	54	1793
Chains. Die for making links for sprocket.....	W. A. McCool.....	461,268	Oct. 13	1119	286	57	223
Chains. Making oiling-links for drive.....	S. Elliott.....	447,814	Mar. 10	888	292	54	1293
Chains. Machine for making sheet-metal.....	F. Egge.....	451,658	May 5	327	79 80 81	55	641
Chains. Shackle for vessels.....	J. B. Miller.....	466,080	Dec. 29	3333	851	57	1810
Chair:							
See Adjustable chair. Reclining-chair.							
Baby's chair. Reversible-seat chair.							
Barber's chair. Revolving chair.							
Convertible chair. Rocking-chair.							
Dental chair. Rocking and reclining chair.							
Folding chair. Rolling chair.							
Hammock-chair. Surgeon's operating-chair.							
Invalid-chair. Surgical chair.							
Knockdown chair. Swinging chair.							
Lawn-chair. Switch-chair.							
Opera-chair. Tilting-chair.							
Rail-chair. Window-chair.							
Railway-chair. Window-cleaning chair.							
Chair.....	L. A. Bangs.....	458,140	Aug. 18	1970	516	56	922
Chair.....	R. M. Cox and T. B. Keim.....	461,238	Oct. 13	1081	273	57	215
Chair.....	J. W. Craig.....	446,249	Feb. 10	1240	303	54	758
Chair.....	J. W. H. Doubler.....	460,568	Oct. 6	42	10	57	10
Chair.....	C. G. Eklund.....	451,034	Apr. 28	2162	534	55	443
Chair.....	P. Flowers.....	463,600	Nov. 17	2201	580 581	57	994
Chair.....	E. S. French.....	449,114	Mar. 31	2985	754	54	1722
Chair.....	J. C. Hurd.....	462,046	Oct. 27	2134	603	57	480
Chair.....	C. E. Kennedy and G. G. Bennett.....	465,275	Dec. 15	2019	516 517	57	1537
Chair.....	H. U. Pohl.....	444,992	Jan. 20	1641	421	54	336
Chair.....	J. Sanford.....	457,567	Aug. 11	1059	211	56	739
Chair.....	T. Suchland.....	449,355	Mar. 31	3388	853	54	1793
Chair.....	J. G. Wilson.....	454,100	June 16	1381	361	55	1427
Chair and desk. Combined.....	C. H. Easto.....	446,632	Feb. 17	1833	454	54	88
Chair and hammock. Combined.....	W. I. Bunker.....	446,659	Feb. 17	1878	466 467	54	897
Chair and life-preserver. Combined.....	I. S. Allen.....	462,291	Nov. 3	113	28	57	573
Chair and sewing-machine top. Combined.....	M. M. Bostick.....	454,251	June 16	1599	421	55	1470
Chair attachment.....	J. T. Lindsey.....	453,649	June 9	744	192	55	1296
Chair attachment. Rocking.....	C. Kade.....	451,490	May 5	71	18	55	593
Chair-back. Detachable.....	J. H. Haulenbeck.....	447,682	Mar. 3	652	162	54	1241
Chair-bottom.....	C. H. and R. A. De Prehn.....	457,637	Aug. 11	1162	297	56	758
Chair iron. Tilting.....	A. E. Quinlan.....	455,866	July 14	919	240	56	185
Chair-seat frame.....	J. Rouse.....	464,936	Dec. 15	1557	396	57	1452
Chair-seat of reed or similar material.....	J. A. Staples.....	461,136	Oct. 13	896	232	57	180
Chair seats. Machine for grooving.....	D. Scanlan.....	452,922	May 26	2385	603	55	1051
Chairs. Adjustable platform for.....	H. C. Wheeler and C. O. Salathoe.....	464,618	Dec. 8	937	231	57	1321
Chairs. Fan attachment for.....	A. P. Nichols.....	452,549	May 19	1795	451	55	928
Chairs. Fan attachment for rocking.....	C. C. Spalsbury.....	451,187	Apr. 28	2407	595	55	490
Chairs. Fan attachment for rocking.....	C. C. Spalsbury.....	451,188	Apr. 28	2411	595 596	55	491
Chairs. Foot-rest for.....	G. W. Archer.....	459,182	Sept. 8	1004	245	56	1267
Chairs, sofas, &c. Attachment for.....	J. Zapp.....	444,719	Jan. 13	1145	295	54	234
Chairs. Spring attachment for.....	C. A. Adams and F. B. Peters.....	452,686	May 19	2003	501	55	969
Chairs. Spring attachment for base rocking.....	A. B. Stevens.....	457,137	Aug. 4	309	81	56	593
Chairs. Spring attachment for tilting.....	R. Hendrickson.....	444,355	Jan. 6	580	149	54	115
Chalk-carrier.....	L. B. Lisle.....	455,569	July 7	438	116	56	84
Chalk. Device for supporting.....	R. W. Jones.....	457,559	Aug. 11	1044	268	56	736
Chalk holder.....	C. W. Lortey.....	463,972	Nov. 24	2795	724	57	1114
Chalk-line holder and plummet.....	R. C. Huxtable.....	461,757	Oct. 20	1975	489	57	392
Chamber attachment. Noiseless.....	V. M. Cone.....	455,907	July 14	983	256	56	197
Chamfers. Producing.....	J. L. Dalot.....	450,507	Apr. 11	1307	320	55	258
Chandelier-display hanger.....	M. Meyberg.....	464,284	Dec. 1	444	106	57	1219
Change-maker and automatic register.....	S. J. Taylor.....	448,278	Mar. 17	1661	421	54	1453
Change-receiver.....	G. Edwards and C. D. Everett.....	446,438	Feb. 17	1547	380	54	831
Channel-flap-laying device.....	J. C. Daggett.....	455,560	July 7	422	112	56	82
Channel-flap-laying machine.....	J. Hemmugway and D. B. Aldoes.....	445,613	Feb. 3	149	39	54	540

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. E.	Vol.	Page.
Channel-scouring device	A. Dillon	461,935	Oct. 27	2278	564	57	459
Channeling-machine	H. H. Arnold	458,331	Aug. 25	2299	{ 561 562 }	56	990
Channeling-machine	A. Ball	457,504	Aug. 11	964	245	56	719
Channeling-machine	Z. T. French	453,999	June 9	1240	323	55	1393
Channeling-machine	F. O. Wellington	454,631	June 23	2215	570	55	1590
Charcoal. Apparatus for reburning animal	J. H. Grimm and W. G. Pennypacker	447,313	Mar. 3	47	12	54	1126
Charcoal. Process of and apparatus for making	L. Zwillinger	466,265	Dec. 29	3621	927	57	1865
Chart. Dress	E. Hood	455,749	July 14	742	195	56	152
Chart. Dress	J. W. Stevenson	453,923	June 9	1132	296	55	1371
Chart for drafting garments	H. G. Kennedy	451,247	Apr. 28	2508	618	55	511
Chart for drafting patterns for garments	G. Drummond	451,553	May 5	162	39.40	55	610
Chart for teaching addition	A. L. Gillis	454,729	June 23	2354	604	55	1619
Chart-holder	C. H. Congdon	450,284	Apr. 14	957	238	55	191
Chart. Multicolor	J. White	459,060	Sept. 8	807	195	56	1229
Chart. Multiplex dress	M. S. Schafer	457,591	Aug. 11	1094	{ 279 280 }	56	746
Chart. Time	E. R. E. Cowell	445,392	Jan. 27	2244	583	54	464
Chase-lock	I. A. Isaacs	462,799	Nov. 10	916	239	57	737
Check. Baggage	C. F. Goldbeck	462,667	Nov. 3	692	175	57	684
Check. Baggage	J. K. Lockard	457,162	Aug. 4	351	90	56	600
Check. Combination	C. Zalind	448,290	Mar. 17	1679	425	54	1456
Check, draft, or other money order or instrument	J. L. Spalding	455,127	June 30	3073	782	55	1762
Check-hook	K. G. Bareis	446,277	Feb. 10	1286	314	54	766
Check-hook	W. P. Knowles	451,361	June 16	1767	459	55	1501
Check-loop	M. Sansony	445,084	Jan. 20	1776	458	54	363
Check-marker	C. H. Coggeshall	459,544	Sept. 15	1580	395	56	1387
Check-protector	E. O. Abbott	448,705	Mar. 24	2347	{ 588 589 590 }	54	1591
Check register. Time	E. L. Slocum	465,394	Dec. 15	2219	{ 509 570 }	57	1575
Check-row attachment	L. Scofield	463,457	Nov. 17	1962	512	57	948
Check-rower	J. C. Barlow	455,380	July 7	133	34.35	56	29
Check-rower	A. C. Evans	445,397	Jan. 27	2252	585	54	465
Check. Service and cash	G. D. Smith	449,973	Apr. 7	489	122	55	95
Check sorter and file. Ratchet	S. G. Wood	464,544	Dec. 8	828	203	57	1302
Checking and unchecking device	M. F. Glynn	445,888	Feb. 3	614	151	54	632
Checking and unchecking device	C. C. Lovejoy	463,306	Nov. 17	1729	451	57	903
Checkrein attachment	O. Barrelle	453,435	June 2	414	108	55	1225
Checkrein for harness	W. W. Davisson	444,975	Jan. 20	1615	413	54	331
Checkrein-holder	F. P. Thompson	448,094	Mar. 10	1338	342	54	1360
Checkrein-hook	F. L. Adams	444,264	Jan. 6	453	114	54	89
Checkrein-hook	V. A. Krepps	449,045	Mar. 24	2372	729	54	1692
Checkrein-hook. Safety	A. Kempkey	453,841	June 9	1027	268	55	1351
Checkrein-loop	C. C. Clark	452,563	May 19	1815	456	55	932
Cheese-box	J. Grieb	463,189	Nov. 17	1543	{ 402 403 }	57	867
Cheese-cover	S. J. Lynn	460,441	Sept. 29	2966	742	56	1666
Cheese-cutter	J. Wallace	465,901	Dec. 29	3030	775	57	1752
Cheese-holder	S. W. Babbitt	453,571	June 2	614	157	55	1263
Cheese-press	E. W. Lundahl and W. N. Thomas	465,381	Dec. 15	2201	564	57	1571
Cheese-rack	J. W. Irons	457,604	Aug. 11	1114	284	56	750
Cheese-rats. Heater for	E. Wagner, Jr.	455,077	June 30	2997	762	55	1748
Cheeses. Perforating Roquefort or other	L. Rigal	448,371	Mar. 17	1813	.....	54	1482
Chemicals. Feeder for charging liquids with	A. J. West	452,172	May 12	1187	300	55	805
Chemise	E. R. Burt	453,255	June 2	117	32	55	1170
Chemille-cutter bar	J. J. Hughes	445,640	Feb. 3	197	52	54	551
Chemille or ornamental cord. Tension device for machines for making	A. Urbahn	461,059	Oct. 13	796	203	57	160
Chest-protector	B. T. Mason	446,531	Feb. 17	1692	414	54	861
Chill-mold	A. Cordingly	461,412	Oct. 13	1362	{ 343 344 }	57	271
Chimney	P. Dickinson	443,714	Feb. 3	325	86	54	576
Chimney	P. Dickinson	457,910	Aug. 18	1614	422	56	852
Chimney-cap	J. Batman	457,628	Aug. 11	1149	293	56	756
Chimney-cap	J. A. Hodel	459,321	Sept. 8	1061	258	56	1278
Chimney-cowl	P. W. Gardner	458,894	Sept. 1	545	132	56	1170
Chimney-cowl	I. C. Schneider	463,202	Nov. 17	1566	408	57	871
Chimney-fine draft. Hot-air	V. Oster	454,492	June 23	1972	514	55	1548
Chimney-platform	J. K. Devore	458,416	Aug. 25	2440	594	56	1017
Chimney-thimble	C. F. Green	450,355	Apr. 14	1072	{ 263 264 }	55	212
Chimney-top	E. Finch	462,246	Nov. 3	42	10	57	560
Chimney-top	F. Rasner	462,162	Oct. 27	2611	650	57	522
Chimneys. Construction of	A. Boettcher	456,109	July 14	1270	334	56	251
Chiropodist's file	C. S. Levy	454,956	June 30	2764	704	55	1701
Chisel-handle	W. H. Gage	446,442	Feb. 17	1555	322	54	833
Chisel. Mortising	A. P. Lanterman	444,596	Jan. 13	967	251	54	200
Chlorinating and filtering vessel. Combined	D. Dennes	465,654	Dec. 22	2641	674	57	1666
Chlorine. Making	P. De Wilde and A. Reyckler	463,767	Nov. 21	2469	.....	57	1052
Chocolate-pot	C. J. Mulford	460,265	Sept. 29	2702	{ 673 674 }	56	1616
Chocolate-pot	C. J. Mulford	463,335	Nov. 17	1773	464	57	910
Chocolate-pot	C. J. Mulford	465,327	Dec. 15	2101	537	57	1553
Chocolate. Preparing sterilized	G. H. Neuhaus, J. H. F. Gronwald, and E. H. C. Oehmann	456,589	July 28	2053	.....	56	417
Chopper: See Cotton-chopper. Stalk-chopper.							
Chopping-knife	A. L. Hutchinson	452,780	May 26	2175	544	55	1011
Christmas-box	C. L. Lockwood	461,352	Oct. 13	1252	319	57	251
Christmas-trees, &c. Holder for	M. Merk	458,756	Sept. 1	317	77	56	1126
Christmas-trees with musical accompaniment. Mechanism for turning	J. C. Eckardt	453,110	May 26	2700	{ 680 681 }	55	1113
Chromates and bichromates. Manufacture of	J. Massignon and E. Watel	463,841	Nov. 24	2573	.....	57	1073

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Chrome-yellow. Making	F. W. Ihne	457,028	Aug. 4	144	-----	56	561
Chronological chart	J. A. Cole	458,358	Aug. 25	2343	572	56	999
Chronometer-escapement	E. Wüthrich	451,630	May 5	228	70	55	633
Chuck	N. E. Austin	457,392	Aug. 11	787	202	56	686
Chuck	G. W. Francis	461,469	Oct. 20	1460	367	57	297
Chuck	J. Hartness	451,711	May 5	406	99	55	656
Chuck	C. R. Mead and J. W. Albert	455,003	June 30	2861	{ 737 728 }	55	1721
Chuck	W. Schwanhausser	458,408	Aug. 25	2428	591	56	1014
Chuck. Drill	N. E. Austin	444,586	Jan. 13	954	247	54	198
Chuck. Drill	N. E. Austin	457,393	Aug. 11	788	202	56	687
Chuck. Drill	J. T. Bastow	465,826	Dec. 29	2897	743	57	1727
Chuck. Drill	J. A. Becher	445,533	Feb. 3	6	2	54	512
Chuck. Drill	W. R. Craig	459,358	Sept. 8	1273	314	56	1321
Chuck. Drill	G. W. Cronmie and B. Dunn	452,363	May 19	1495	370	55	874
Chuck. Drill	C. E. Eberle	457,889	Aug. 18	1584	412	56	847
Chuck. Drill	F. N. Gardner	463,331	Nov. 17	1769	463	57	999
Chuck. Drill	C. T. Pratt	449,135	Mar. 31	3017	763	54	1728
Chuck. Drill	C. T. Pratt	455,490	July 7	300	76, 77	56	61
Chuck. Drill	C. T. Pratt	455,669	July 7	630	167	56	122
Chuck. Drill	C. T. Pratt	462,879	Nov. 10	1051	273	57	763
Chuck. Drill	J. N. Skinner	454,074	June 16	1346	352	55	1421
Chuck. Drill	J. F. Stevard	455,477	July 7	279	71	56	56
Chuck for holding pipe-nipples	R. G. Ferguson	460,716	Oct. 6	298	73	57	59
Chuck for turning-lathes	W. L. Grout and E. L. Bowers	445,695	Feb. 3	298	78, 79	54	571
Chuck for turning-lathes	E. Lindner	452,496	May 19	1712	430	55	912
Chuck jaw. Lathe	J. N. Skinner	463,373	Nov. 17	1842	482	57	924
Chuck. Lathe	J. Chase	464,609	Dec. 1	12	4	57	1139
Chuck. Lathe	C. F. Fulmer and W. E. Kelvie	455,195	June 30	3193	810	55	1765
Chuck. Lathe	J. N. Skinner	460,601	Oct. 6	85	23	57	19
Chuck. Lathe	J. N. Skinner	463,392	Nov. 17	1880	490	57	931
Chuck. Nipple	A. W. Cash	452,768	May 26	2143	537	55	1005
Chuck. Nipple	A. W. Cash	452,769	May 26	2144	537	55	1005
Chuck. Nipple	A. W. Cash	452,770	May 26	2145	537	55	1005
Chuck. Nipple-holding	D. S. Paul	466,255	Dec. 29	3606	923	57	1862
Chuck. Planer	C. F. Fulmer and W. E. Kelvie	455,196	June 30	3194	{ 810 811 }	55	1766
Chuck. Universal automatic	W. H. Gates	461,870	Oct. 27	2163	533	57	437
Chuck. Work-holding	J. A. Giles	463,332	Nov. 17	1770	463	57	910
Chucks. Automatic feed mechanism for	J. B. Clyne	447,144	Feb. 24	2706	671	54	1062
Chucks. Extension-jaw for	W. J. C. Rowe	456,854	July 28	2509	658	56	501
Churn	J. F. Adams	448,491	Mar. 17	2003	501	54	1517
Churn	O. E. Bell	452,251	May 12	1306	327	55	830
Churn	E. E. Birkhead	458,442	Aug. 25	2480	603	56	1024
Churn	C. J. Bloom	465,335	Dec. 15	2122	543	57	1556
Churn	J. H. Brownfield	463,800	Nov. 24	2512	656	57	1060
Churn	A. Coen	460,951	Oct. 13	641	166	57	132
Churn	J. H. Cookus	449,523	Mar. 31	3667	921	54	1848
Churn	R. Crouch	447,399	Mar. 3	206	54	54	1157
Churn	J. M. and W. H. Curtice	459,347	Sept. 8	1258	{ 309 310 }	56	1318
Churn	H. G. Ellsworth	466,072	Dec. 29	3324	849	57	1808
Churn	R. H. Engelhardt	466,299	Dec. 29	3681	940	57	1876
Churn	N. Evinger	445,823	Feb. 3	609	150	54	631
Churn	W. B. Farrar	455,189	June 30	3183	{ 806 807 }	55	1783
Churn	L. A. Harper	445,272	Jan. 27	2082	537	54	430
Churn	E. I. Harrison	454,943	June 30	2744	699	55	1697
Churn	W. H. Hawks and G. Peoples	458,693	Sept. 1	228	54	56	1109
Churn	H. T. Henderson	461,883	Oct. 27	2184	538	57	441
Churn	C. G. P. de Laval	460,585	Oct. 6	66	18	57	15
Churn	O. Linebarger	454,750	June 23	2386	613	55	1626
Churn	J. P. Lynott	446,948	Feb. 24	2356	586	54	997
Churn	J. T. Mark	462,568	Nov. 3	552	134	57	657
Churn	J. McBride	446,263	Feb. 10	1264	310	54	761
Churn	C. Mears	461,247	Oct. 13	1094	279	57	218
Churn	J. C. Nice	453,360	June 2	278	74	55	1200
Churn	J. S. Oster	456,839	July 28	2478	651	56	495
Churn	W. H. Philpot	458,482	Aug. 25	2544	620	56	1035
Churn	A. C. Richardson	446,470	Feb. 17	1595	392	54	842
Churn	E. H. Roberts	465,030	Dec. 15	1616	411	57	1463
Churn	J. Sampson	459,653	Sept. 15	1766	444	56	1422
Churn	G. A. Shannon and J. W. Coyne	460,314	Sept. 29	2785	694	56	1632
Churn	A. Spies	461,933	Oct. 27	2274	563	57	458
Churn	L. F. Sullivan	459,771	Sept. 23	1945	491	56	1464
Churn	W. N. Wachter	447,852	Mar. 10	952	238	54	1305
Churn	E. Wayland	454,923	June 30	2706	692	55	1691
Churn	G. P. Whitborn	464,236	Dec. 1	361	87	57	1202
Churn	J. P. Wilson	463,656	Nov. 24	2302	605	57	1021
Churn-closure	S. D. Palmer	446,391	Feb. 10	1455	357	54	802
Churn-cover	M. L. Hoyt	462,007	Oct. 27	2377	589	57	478
Churn-dasher	A. J. Apgar	461,410	Oct. 13	1360	343	57	271
Churn-dasher	I. F. Sterling	446,718	Feb. 17	1968	491	54	914
Churn driving mechanism	C. D. Olds	459,303	Sept. 8	1182	287	56	1303
Churn. Extractor	A. Wahlén, C. J. Lundström, and T. Collins	446,651	Feb. 17	1868	463	54	895
Churn-heads. Locking attachment for	J. McDermaid	459,145	Sept. 8	942	{ 226 227 }	56	1256
Churn-motor	L. S. Eaves	447,670	Mar. 3	632	157	54	1237
Churn-motor	J. H. House	464,874	Dec. 8	1333	334	57	1399
Churn-motor	J. B. Miller	464,236	Dec. 1	346	83, 84	57	1199
Churn-operating device	W. J. Knox	446,068	Feb. 10	911	223	54	698
Churn. Pneumatic	W. B. Walters	460,384	Sept. 29	2892	723	56	1652
Churn-power	J. S. Dickey	450,722	Apr. 21	1666	402	55	341

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De'g.	Vol.	Page.
Churn-power.....	W. J. Magee.....	452,846	May 26	2261	567	55	1028
Churn-power.....	R. Reese.....	463,872	Nov. 24	2641	688	57	1084
Churn-power. Hand and foot.....	A. F. and A. G. Bonham.....	456,790	July 28	2395	630	56	481
Churn-valve.....	M. L. Hoyt.....	463,422	Nov. 17	1921	502	57	939
Churn. Vibrating.....	L. A. Miller.....	454,752	June 23	2389	613	55	1626
Churn. Working body.....	G. N. Brisbin and J. Copper.....	448,205	Mar. 17	1526	390	54	1427
Churns. Means for operating.....	L. H. Conner.....	455,739	July 14	729	191	56	149
Chute and hopper for charging reforts. Combined.....	K. M. Mitchell.....	444,249	Jan. 6	432	109	54	85
Chute. Animal.....	L. H. Myers and S. H. Armstrong.....	449,228	Mar. 31	3157	796	54	1754
Chute. Coal.....	F. G. Humphrey.....	461,632	Oct. 20	1778	438	57	354
Chute. Coal.....	F. G. Susemihl.....	455,585	July 7	467	122	56	91
Chute. Coal and grain.....	T. W. Emery.....	444,745	Jan. 13	1202	312	54	243
Cider mill.....	H. H. Chapman.....	458,015	Aug. 18	1790	467	56	886
Cider-mill.....	J. L. Rohrer.....	457,217	Aug. 4	448	117	56	616
Cider press and mill.....	J. F. Gearhart.....	447,677	Mar. 3	641	159	54	1239
Cigar.....	S. Heilbronner.....	451,302	Apr. 28	2593	639	55	527
Cigar.....	A. Moonelis.....	456,312	July 21	1597	422	56	322
Cigar-blank.....	H. N. Anderson.....	444,624	Jan. 13	1003	261	54	207
Cigar-box opener.....	W. Schott.....	458,256	Aug. 25	2163	530	56	965
Cigar-box-trimming machine.....	H. Leiman.....	460,877	Oct. 6	521	133	57	103
Cigar-boxes. Means for marking.....	C. H. Storm.....	446,650	Feb. 17	1867	463	54	895
Cigar-bunches. Making.....	R. A. Bright.....	451,749	May 5	473	117	55	668
Cigar-bunches. Making.....	R. A. Bright.....	451,750	May 5	474	117	55	668
Cigar-bunches. Manufacture of.....	W. A. Peck.....	451,737	May 5	450	109	55	664
Cigar bunching and wrapping machine.....	J. J. Bach.....	450,831	Apr. 21	1843	448	55	373
Cigar-bunching machine.....	C. Browning.....	456,691	July 28	2218	588	56	449
Cigar-bunching machine.....	G. F. Carlie.....	457,847	Aug. 18	1501	391	56	833
Cigar-bunching machine.....	J. Connell.....	450,959	Apr. 21	2044	405	55	412
Cigar-bunching machine.....	J. Connell.....	456,798	July 28	2403	633	56	483
Cigar-bunching machine.....	J. Dela Mar.....	461,072	Oct. 13	812	207	57	163
Cigar-bunching machine.....	F. J. Hagen. (Reissue).....	11,150	Mar. 10	1491	380	54	1412
Cigar-bunching machine.....	F. J. Hagen and L. Wieland.....	460,278	Sept. 29	2734	381	56	1622
Cigar-bunching machine.....	T. and L. B. Hancock.....	463,508	Nov. 17	2035	533	57	962
Cigar-bunching machine.....	F. C. Miller.....	465,283	Dec. 15	2033	534	57	1540
Cigar-bunching machine.....	W. A. Peck and R. A. Bright.....	451,739	May 5	453	110	55	665
Cigar-bunching machine.....	H. Schmidt, A. Merunka, and C. J. Werner.....	465,499	Dec. 22	2382	609	57	1617
Cigar-bunching machine.....	F. and E. H. Thompson.....	459,167	Sept. 8	982	610	56	1263
Cigar-bunching machine.....	M. Van Gülpen.....	451,610	May 5	248	59	55	627
Cigar-bunching machine.....	B. Wertheimer.....	460,415	Sept. 29	2931	733	56	1659
Cigar-bunching machine.....	G. L. Westman and J. Delarue.....	446,989	Feb. 24	2419	601	54	1010
Cigar-bundle wrapper.....	A. and J. Michalitschke.....	462,099	Oct. 27	2516	625	57	504
Cigar-bundling machine.....	C. Albert and F. Rathkamp.....	454,246	June 16	1592	419	55	1468
Cigar-case.....	J. H. Pawkes.....	448,948	Mar. 24	2724	683	54	1663
Cigar-case. Refrigerator.....	A. H. Heatzman.....	450,312	Apr. 14	1003	248	55	199
Cigar-clipper.....	C. L. Pratt.....	455,412	July 7	189	49	56	39
Cigar-cutter.....	A. B. Grunip.....	449,073	Mar. 24	2911	738	54	1699
Cigar-cutter.....	J. H. Bowen.....	462,074	Oct. 27	2472	613	57	496
Cigar-cutter.....	J. S. Henry.....	465,372	Dec. 15	2187	561	57	1569
Cigar-cutter.....	E. T. Quin and J. F. Dunckel.....	447,843	Mar. 10	938	235	54	1303
Cigar-cutter.....	E. Walker.....	452,626	May 19	1913	481	55	951
Cigar cutter and perforator.....	A. F. Van Rheeden.....	454,934	June 30	2728	695	55	1695
Cigar cutting and branding machine.....	S. Z. Phinney.....	448,302	Mar. 17	1702	431	54	1460
Cigar-fillers. Machine for breaking and making.....	B. Baron.....	452,011	May 12	878	224	55	753
Cigar-fillers. Machine for forming.....	T. and L. B. Hancock.....	458,271	Aug. 25	2204	539	56	972
Cigar-fillers. Machine for making.....	M. Van Gülpen.....	457,238	Aug. 4	477	126	56	623
Cigar-fillers. Method of and machine for making.....	B. Baron.....	452,012	May 12	880	127	55	753
Cigar-fillers. Method of and machine for making.....	B. Baron. (Reissue).....	11,199	Oct. 27	2722	685	57	543
Cigar forming and rolling machine.....	W. A. Peck and R. A. Bright.....	451,738	May 5	451	109	55	664
Cigar-holder.....	E. Promis.....	461,592	Oct. 20	1711	418	57	342
Cigar-holder.....	W. J. Stratton.....	454,689	June 23	2296	588	55	1607
Cigar-lighter.....	A. F. Hawksley.....	447,875	Mar. 10	992	250	54	1312
Cigar-lighter. Electric.....	H. B. Brown.....	453,618	June 9	703	182	55	1289
Cigar-lighter. Electric.....	G. N. Engert.....	463,754	Nov. 24	2452	641	57	1049
Cigar-lighting apparatus. Electric.....	W. W. Foster.....	463,384	Nov. 17	1858	485	57	927
Cigar-machine.....	J. E. Rickards.....	444,768	Jan. 13	1239	322	54	250
Cigar-machine roll.....	R. A. Bright and W. A. Peck.....	451,748	May 5	471	117	55	668
Cigar-machine roll.....	W. A. Peck and R. A. Bright.....	451,736	May 5	448	109	55	664
Cigar-machines. Flexible roll for.....	R. A. Bright and W. A. Peck.....	445,937	Feb. 3	690	168	54	648
Cigar-maker's gage.....	J. A. Messins and P. Burgos.....	452,187	May 12	1206	305	55	809
Cigar-maker's implement.....	T. Street.....	454,084	June 16	1362	354	55	1423
Cigar-maker's stand or table.....	J. M. Griffin.....	464,710	Dec. 8	1094	271	57	1353
Cigar-moistening device.....	H. Hogendobler.....	461,872	Oct. 27	2167	533	57	437

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dis.	Vol.	Page.
Cigar-mold	A. Jaenicke	445,997	Feb. 10	803	194	54	677
Cigar-mold	A. Jaenicke	445,998	Feb. 10	804	195	54	677
Cigar-mold	B. H. Meyer and P. Huppmann-Gerard	446,000	Feb. 10	807	195	54	678
Cigar mouth-pieces from small pieces of amber. Mold for making	F. Egge	457,966	Aug. 18	1710	447	56	872
Cigar or cigarette holder	E. B. Burr	446,377	Feb. 10	1433	352	54	797
Cigar or pipe holder	J. Skuce	453,506	Aug. 25	2584	630	56	1044
Cigar or pipe mouth-piece	A. J. Maleney	461,267	Oct. 13	1119	286	57	223
Cigar-rolling machine	R. R. Lewis	459,756	Sept. 22	1924	485	56	1460
Cigar sample-box	G. S. Carter	453,691	June 9	809	207	55	1309
Cigar-stamping machine	G. F. and J. W. McIndee	455,820	July 14	863	226	56	173
Cigar stand and holder	R. Vint and L. Goldberg	457,037	Aug. 4	157	38	56	563
Cigar-tip cutter	E. Bruhuff and C. Lehmann	448,116	Mar. 10	1365	350	54	1386
Cigar-tip cutter and match-safe. Combined	J. H. Foote	462,350	Nov. 3	214	51	57	592
Cigar-tip former	I. Lichtinger	463,633	Nov. 24	2265	596	57	1015
Cigar trimming and branding machine	W. Garretsen	449,260	Mar. 31	3210	810	54	1764
Cigar-wrapping machine	R. A. Bright and W. A. Peck	453,050	May 26	2591	655	55	1092
Cigar-wrapping machine	W. A. Peck and R. A. Bright	451,735	May 5	445	108	55	664
Cigars, cigarettes, &c. Lighting device for	S. E. Smith and T. Barnshaw	464,397	Dec. 1	605	149	57	1249
Cigars. Implement for testing the burning qualities of	G. Balbin	448,194	Mar. 17	1507	384	54	1424
Cigars. Making	E. K. Martin	451,178	Apr. 28	2374	590	55	487
Cigars. Packing	J. Kruse	457,401	Aug. 11	798	205	56	689
Cigarette-box	E. A. Hoer	447,183	Feb. 24	2769	685	54	1075
Cigarette-case	H. H. Willis	460,244	Sept. 29	2669	665	56	1609
Cigarette-cutter	O. W. Allison	459,115	Sept. 8	899	216	56	1248
Cigarette-machine	O. W. Allison	459,119	Sept. 8	904	217	56	1249
Cigarette-machine	J. V. Bohannon	456,644	July 28	2146	569	56	435
Cigarette-machine	H. Bohls	445,036	Jan. 20	1696	436	54	347
Cigarette-machine	H. Kubey	455,568	July 7	436	116	56	84
Cigarette-machine	F. J. Ludington and E. T. Pollard	454,593	June 23	2139	551	55	1579
Cigarette-machine	A. L. Munson	447,968	Mar. 10	1145	291	54	1341
Cigarette-machines. Cigarette drawing-band for	O. W. Allison	456,976	Aug. 4	84	20	56	549
Cigarette-machines. Cigarette drawing-band for	O. W. Allison	459,116	Sept. 8	901	216	56	1248
Cigarette-machines. Drawing mechanism for	O. W. Allison	459,117	Sept. 8	902	216	56	1248
Cigarette-machines. Filler-forming mechanism for	O. W. Allison	459,118	Sept. 8	903	217	56	1248
Cigarette-machines. Tube-carriage for	A. E. Deconté	456,192	July 21	1405	373	56	287
Cigarette mouth-piece	W. J. Kernegood and B. M. Friedman	456,333	July 21	1631	432	56	329
Circuit-breaker. Automatic	W. R. McLain	465,046	Dec. 15	1637	417	57	1467
Circuit-closer	G. P. Johnston, Jr.	450,292	Apr. 14	966	240	55	192
Circuit-closer	P. D. Richards	458,343	Aug. 25	2321	567	56	995
Circuit-controller	W. B. Cleveland	462,033	Oct. 27	2418	600	57	486
Circuit-controller and alarm	C. M. Woolcott and A. E. Wilmot	445,306	Jan. 27	2119	548	54	438
Circuit-controlling apparatus	J. P. Cushing and W. J. Kelly	460,199	Sept. 29	2603	650	56	1596
Circular cutter	L. S. Rochat	457,370	Aug. 11	751	193	56	679
Circular cutter and saw. Combined	J. R. Cummings	457,898	Aug. 18	1593	414	56	848
Cistern-cleaner	A. B. Hill	448,340	Mar. 17	1773	448	54	1474
Cistern-cleaning device	O. I. Searles, G. F. Jackson, and F. M. Gustin	447,368	Mar. 3	151	41	54	1146
Clamp:							
<i>See</i> Basin-clamp. Knitting-machine clamp.							
Belt-clamp. Lumber-clamp.							
Box-clamp. Molder's flask-clamp.							
Canopy-rod clamp. Paper-clamp.							
Carben-clamp. Pipe-clamp.							
Clothes-line clamp. Pipe and main clamp.							
Cultivator-clamp. Railway-rail clamp.							
Drapery-clamp. Railway-track clamp							
Easel-clamp. Rope-clamp.							
Electric clamp. Rubber-dam clamp.							
Electric-wire clamp. Sash-cord clamp.							
Extension-clamp. Saw-brazing clamp.							
Fence-clamp. Sewing-machine needle-clamp.							
Floor-clamp. Sleeper-clamp.							
Furniture-clamp. Soldering-clamp.							
Halyard-clamp. Trolley-wire clamp.							
Hose-clamp. Vise-clamp.							
Insulating-clamp. Wall-paper clamp.							
Jeweler's clamp. Wire-clamp.							
Jeweler's work-clamp.							
Clamp	P. Brown	444,484	Jan. 13	791	205	54	165
Clamp	G. P. Plischke and H. Brueckel	447,526	Mar. 3	432	106	54	1199
Clamp	B. J. O'Quinn	456,634	July 28	2131	564	56	432
Clamp for beeks, &c.	J. Q. Moxley	460,754	Oct. 6	353	87	57	69
Clamp for holding chisels	J. A. Islin	447,776	Mar. 10	817	203	54	1280
Clamps. Manufacture of	A. A. Strom	459,859	Sept. 22	2086	523	56	1492
Clamping-tools. Jaw for	G. W. Miller	448,451	Mar. 17	1942	489	54	1506
Claphoard-holder	B. F. Mooney	445,681	Feb. 3	279	74	54	567

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Clapboard-machine	W. Crosswell	458,098	Aug. 18	1908	496	56	911
Clarinet. Transformable	E. E. Harkin	464,926	Dec. 8	1399	353	57	1411
Clasp:							
<i>See</i> Awning-pole clasp. Pencil-clasp.							
Button-clasp. Pocket-book clasp.							
Clothing-clasp. Ribbon-clasp.							
Corset-clasp. Rope-end clasp.							
File or wrapper clasp. Shoe-clasp.							
Garment-clasp. Suspender-clasp.							
Clasp	S. B. Bacon	446,564	Feb. 17	1741	428	54	870
Clasp	J. Beesley	465,012	Dec. 15	1582	403	57	1457
Clasp	H. A. Borresen	460,304	Sept. 29	2770	690	56	1629
Clasp	F. J. Herrick	462,706	Nov. 10	770	200	57	708
Clasp	S. T. Hisley	451,482	May 5	56	14	55	590
Clasp	J. H. Pilkington	452,582	May 19	1844	463	55	937
Clasp	W. H. Thompson	448,893	Mar. 24	2644	664	54	1646
Clasp-knife	R. C. Kruschke	462,141	Oct. 27	2586	644	57	517
Clasp for curtains and the like	E. L. Perry	456,636	July 28	2133	564	56	432
Clasps. Device for assembling	G. A. Watkins	444,996	Jan. 20	1647	422	54	338
Claw-bars. Die for making	M. E. Elliott	465,627	Dec. 22	2603	661	57	1658
Clay disintegrating and separating mill	H. B. Camp	452,895	May 26	2342	592	55	1043
Clay-disintegrating mill	H. B. Camp	452,896	May 26	2345	593	55	1043
Clay. Feeding apparatus for use in burning	H. G. Butler	447,458	Mar. 3	309	78	54	1176
Clay. Feeding apparatus for use in burning	H. G. and W. Butler	447,459	Mar. 3	311	78	54	1176
Clay-grinding machine. Dry-	J. Thompson	454,780	June 23	2429	{ 623 624 }	{ 55 55 }	1634
Clay to make ballast, &c. Feeding apparatus for use in burning	H. G. Butler	462,427	Nov. 3	336	83	57	614
Clay-ware. Coloring	G. Ilottinger	446,683	Feb. 17	1919	{ 477 478 }	{ 54 54 }	904
Cleaner:							
<i>See</i> Boiler-cleaner. Grain-drill cleaner.							
Boiler-tube cleaner. Gun cleaner.							
Boot or shoe cleaner. Hemp-cleaner.							
Bottle-cleaner. Horse-cleaner.							
Car-track cleaner. Lamp-chimney cleaner.							
Carpet-cleaner. Pen-cleaner.							
Centrifugal cleaner. Railway-track cleaner.							
Cistern-cleaner. Saw-cleaner.							
Comb-cleaner. Tooth-cleaner.							
Cotton-cleaner. Track-cleaner.							
Flue-cleaner. Vacuum cleaner.							
Fruit-cleaner. Vegetable-cleaner.							
Grain-cleaner. Window-cleaner.							
Cleaning composition	D. E. Sumner	444,187	Jan. 6	342	.....	54	69
Cleat. Wire	R. Gorton	459,487	Sept. 15	1487	373	56	1371
Clevis	F. M. Brown	456,473	July 21	1866	493	56	372
Clevis	A. D. Bruton	456,793	July 28	2397	631	56	482
Clevis	J. M. Iverson	465,373	Dec. 15	2017	515	57	1537
Clevis	J. J. McBride	455,108	June 30	3040	772	55	1756
Clinometer or slope-measurer	J. H. Parks	444,196	Jan. 6	356	88	54	72
Clip:							
<i>See</i> File-clip. Tug-clip.							
Lubricator-clip. Whiffletree-clip.							
Thill-coupling clip. Yoke-clip.							
Clip	C. E. Soule	456,743	July 28	2324	613	56	468
Clipper	N. Taccone	446,823	Feb. 17	2132	530	54	949
Clipper. Hair	J. K. Priest	445,081	Jan. 20	1772	457	54	362
Clipper. Hair	R. C. Wright	448,901	Mar. 24	2658	667	54	1649
Clipping-machine. Hair	G. H. Coates and E. M. Long	445,947	Feb. 3	702	171	54	650
Clipping-shears	L. G. Werner	448,170	Mar. 10	1449	370	54	1403
Clock	S. Fellingner	462,000	Oct. 27	2367	587	57	476
Clock	J. A. Heuser	453,637	June 9	726	187	55	1293
Clock. Advertising	F. Redman	451,248	Apr. 28	2010	619	55	511
Clock. Alarm	W. Madel	460,751	Oct. 6	350	86	57	69
Clock and thermoscope system. Combined electric	H. J. Haight	460,963	Oct. 13	657	{ 169 170 360 361 362 }	{ 57 57 57 57 57 }	135
Clock. Astronomical	A. M. Cory	463,101	Nov. 10	1391	{ 362 361 362 }	{ 57 57 57 }	831
Clock-case	J. Dejulio	458,445	Aug. 25	2484	604	56	1024
Clock-case	H. S. Prentiss	450,528	Apr. 14	1334	328	55	263
Clock-case	H. S. Prentiss	450,529	Apr. 14	1336	329	55	263
Clock-case	G. Wexler	462,344	Nov. 3	194	49	57	588
Clock-chimes mechanism	S. Willcock	451,353	Apr. 28	2666	{ 660 661 586 587 }	{ 55 55 57 57 }	541
Clock. Cuckoo	T. Weisser	465,441	Dec. 15	2287	587	{ 57 36 }	1590
Clock. Electric	W. K. Menns and W. J. Dudley	457,030	Aug. 4	147	36	56	562
Clock. Electric alarm	E. M. Egerton	448,325	Mar. 17	1740	440	54	1468
Clock. Electric alarm	C. Lester	458,178	Aug. 25	2032	527	56	940
Clock. Electric alarm	J. O. Newton	458,372	Aug. 25	2371	578	56	1003
Clock. Electric alarm	L. Winterhalder	458,206	Aug. 25	2079	538	56	949
Clock. Electric pendulum	H. Phillips	466,011	Dec. 29	3230	823	57	1789
Clock. Electric programme	C. Lester	464,730	Dec. 8	1124	{ 278 279 }	{ 57 57 }	1358
Clock. Electric programme	J. L. McCaskey	463,843	Nov. 24	2575	671	57	1073
Clock. Electric-regulating	D. and G. Vande Plancke	446,801	Feb. 17	2097	{ 522 523 616 617 }	{ 54 54 55 55 }	941
Clock. Electric transmitting	H. S. Prentiss	452,955	May 26	2444	{ 617 617 }	{ 55 55 }	1063
Clock. Electrical watchman's	H. S. Park	455,352	July 7	80	24	56	20

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Clock for use in electric-lighting and other systems. Electric	F. Von Hefner-Altenneck	455,041	June 30	2925	744	55	1733
Clock. Four-hundred-day	A. M. Lane	462,009	Oct. 27	2379	589 590 394 395	57	478
Clock-hands. Electric synchronizing device for	A. M. Church	452,424	May 19	1589	395	55	892
Clock. Illuminated.	A. A. DuBois	448,510	Mar. 17	2027	507	54	1522
Clock. Independent electric	W. J. Dudley	447,105	Feb. 24	2612	649	54	1047
Clock. Independent electric	W. J. Dudley	465,655	Dec. 22	2042	674	57	1666
Clock. Independent electric	E. G. Hammer	444,433	Jan. 13	708	185	54	148
Clock. Independent electric	E. Lefebvre	445,023	Jan. 20	1640	412	54	344
Clock. Independent electric	W. S. Scales	448,998	Mar. 24	2401	708	54	1077
Clock-key	A. M. Lane	462,011	Oct. 27	2383	591	57	479
Clock-movement	C. Stahlberg	452,652	May 19	1952	490	55	959
Clock movement. Secondary electric	B. Haberthür	456,325	July 21	1618	428 429	56	326
Clock-pinion	A. Bannatyne	444,684	Jan. 13	1102	285	54	225
Clock. Secondary electric	W. S. Scales	448,999	Mar. 24	2403	708	54	1678
Clock. Self-winding	F. M. Schmidt	452,392	May 19	1535	381	55	881
Clock. Self-winding electric	F. L. Gregory	455,532	July 7	373	96	56	73
Clock striking mechanism	C. E. Burnham	461,315	Oct. 13	1190	303	57	238
Clock striking mechanism	A. M. Lane	445,607	Feb. 3	141	36	54	538
Clock striking mechanism	G. W. Shuman	454,299	June 16	1674	439	55	1484
Clock-synchronizer	A. G. Wiseman	452,299	May 12	1372	341	55	841
Clock synchronizer. Electric	H. S. Prentiss	452,956	May 26	2446	617 618	55	1064
Clock-winder. Electric	J. W. and C. F. Du Laney	461,423	Oct. 20	1381	349	57	281
Clock-winding mechanism	W. N. Packer and W. W. Bradley	445,073	Jan. 20	1762	454	54	360
Clock-winding mechanism. Circuit-closer for	J. W. Du Laney	461,424	Oct. 20	1382	349	57	281
Clocks. Circuit-closer for	H. A. Chase	448,294	Mar. 17	1690	427	54	1458
Clocks. Contact for electric programme	F. E. Smith	459,917	Sept. 22	2183	549	56	1509
Clocks. Electric hand-setting mechanism for	W. W. Bradley and W. N. Packer	444,482	Jan. 13	784	204	54	164
Clocks. Pendulum adjustment for	F. M. Wakeman	449,016	Mar. 24	2825	716	54	1682
Clocks. Power-equalizing apparatus for	J. A. Olmsted	462,017	Oct. 27	2390	592	57	430
Clocks. Repeating mechanism for	G. H. Blakesley	457,024	Aug. 4	138	34	56	560
Clocks. Synchronizing mechanism for the seconds-hands of	H. Munson	458,716	Sept. 1	258	61	56	1115
Closet:							
See Cremating-closet.	Knockdown closet.						
Cremator-closet.	Sanitary closet.						
Crematory-closet.	Warming-closet.						
Dry closet.	Wash-out closet.						
Dry-air closet.	Water-closet.						
Closet-cistern	B. R. Bacon	447,534	Mar. 3	441	108	54	1200
Closet-cover	J. B. Bigelow	451,907	May 12	723	182	55	722
Closet or privy and pan therefor	E. W. Cracknell	460,361	Sept. 29	2362	714	56	1646
Closets, &c. Hermetical cover with cleansing apparatus for	S. Siemang and L. Guttman	455,975	July 14	1084	284	56	214
Closets. Time-signal for	G. W. Bower	453,878	June 9	1073	280	55	1360
Cloth-cutting machine	H. N. Elliott	457,899	Aug. 18	1594	415	56	849
Cloth-cutting machine	D. Roche	457,431	Aug. 11	842	218	56	697
Cloth-cutting machine	R. Schofield	451,335	Apr. 28	2642	653	55	537
Cloth-cutting machine	A. Warth	444,282	Jan. 6	476	121	54	94
Cloth-finishing machines. Cloth-guiding mechanism for	W. C. Peirce	463,581	Nov. 17	2167	572	57	987
Cloth-folding frame	H. W. and A. W. Brewtall	460,237	Sept. 29	2656	602	56	1607
Cloth-folding machine	W. A. Richardson	456,851	July 28	2505	657	56	500
Cloth-folding machine	A. H. Sutton	466,024	Dec. 29	3254	829	57	1793
Cloth-guiding machine	J. J. Scholfield	463,552	Nov. 17	2118	558	57	977
Cloth marking and cutting apparatus	A. L. Singer	451,006	Apr. 21	2121	523 524	55	427
Cloth-napping machine	I. N. Forrester	458,725	Sept. 1	272	64. 65	56	1117
Cloth-napping machine	D. Gessner	462,697	Nov. 10	759	198	57	705
Cloth-napping machine	H. N. Grosselin	459,521	Sept. 15	1542	384 385	56	1380
Cloth-napping machine	C. Wood	459,353	Sept. 8	1266	312	56	1320
Cloth-napping machine	C. Wood	459,354	Sept. 8	1267	312 313	56	1320
Cloth or other material. Machine for reblocking	H. Hutchinson	448,834	Mar. 24	2550	640	54	1629
Cloth. Pattern-plate for marking	M. L. Kelley	455,338	July 7	51	15	56	13
Cloth-pressing machine	H. W. Honeyman	454,798	June 23	2460	632	55	1639
Cloth-pressing machine	G. W. Voelker	445,723	Feb. 3	340	90	54	580
Cloth-pressing machine	G. W. Voelker	453,028	May 26	2560	648	55	1085
Cloth scouring, rinsing, and purifying machine	J. W. Steelhrooke	446,937	Feb. 24	2343	582	54	995
Cloth-shearing machine	E. Spencer	459,725	Sept. 15	1874	471 472	56	1443
Cloth shearing or cropping machine	E. Martin and T. F. Drake	450,028	Apr. 7	566	141	55	109
Cloth-shrinking apparatus	C. W. Schaefer	448,459	Mar. 17	1950	491	54	1508
Cloth-shrinking machine	C. W. Schaefer	459,021	Sept. 8	744	140	56	1218
Cloth-stretching machine	C. A. Cavanagh	463,658	Nov. 24	2304	605	57	1022
Cloth-stretching machine	J. E. Windle	459,235	Sept. 8	1078	263	56	1222
Cloth-teaseling machine	A. Brown	452,161	May 12	1162	294	55	801
Cloth-treating apparatus	A. S. Dinsmore	458,224	Aug. 25	2111	548	56	956
Clothes-drainer	A. L. Eversmeyer	460,819	Oct. 6	444	112	57	69
Clothes-drier	A. Anderson	462,424	Nov. 3	333	82	57	614
Clothes-drier	G. W. Ansley and J. H. Boyd	447,551	Mar. 3	465	115	54	1205
Clothes-drier	J. J. Becker	445,633	Feb. 3	181	47	54	547
Clothes-drier	J. J. Bisel	455,301	July 7	10	2	56	5
Clothes-drier	J. Degelleke	446,853	Feb. 24	2191	546	54	969
Clothes-drier	J. H. D. Everett	458,418	Aug. 25	2442	595	56	1017
Clothes-drier	E. S. Fassett	458,829	Sept. 1	437	105	56	1149
Clothes-drier	W. Glanzer	457,114	Aug. 4	278	72	56	586
Clothes-drier	J. M. Harms	455,325	July 7	38	11	56	10
Clothes-drier	M. D. Judkins	448,049	Mar. 10	1280	326	54	1368

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & g.	Vol.	Page.
Clothes-drier.....	G. W. Llewellyn.....	449,484	Mar. 31	3615	910	54	1837
Clothes-drier.....	M. L. W. Martinot.....	446,260	Feb. 10	1258	306	54	760
Clothes-drier.....	J. W. McCandless.....	459,644	Sept. 15	1755	441	56	1420
Clothes-drier.....	J. McKinnon and A. Jameson.....	452,233	May 12	1271	{ 320 321 }	55	823
Clothes-drier.....	J. McKinnon.....	463,540	Nov. 17	2097	552	57	973
Clothes-drier.....	W. H. Moseley.....	451,567	May 5	183	44	55	614
Clothes-drier.....	W. A. Newman.....	446,362	Feb. 10	1410	346	54	792
Clothes-drier.....	F. A. Price.....	464,762	Dec. 8	1173	292	57	1367
Clothes-drier.....	S. M. Price and J. F. Klaiss.....	465,885	Dec. 29	3007	767	57	1747
Clothes-drier.....	W. F. Redding.....	458,375	Aug. 25	2376	{ 579 580 }	56	1004
Clothes-drier.....	B. F. Standish.....	457,800	Aug. 18	1429	370	56	819
Clothes-drier.....	J. F. Wynkoop.....	448,289	Mar. 17	1677	425	54	1456
Clothes-hanger.....	E. Sundberg.....	445,866	Feb. 3	582	142	54	626
Clothes-line.....	C. B. Albert.....	457,335	Aug. 11	693	177	56	667
Clothes-line.....	A. D. McCallen.....	444,123	Jan. 6	233	56	54	48
Clothes-line.....	F. S. McKay.....	451,065	Apr. 28	2202	544	55	451
Clothes-line.....	C. F. Moore.....	457,617	Aug. 11	1136	290	56	753
Clothes-line.....	H. E. Percival.....	446,007	Feb. 10	815	197	54	679
Clothes-line and suspension device.....	A. A. Cox.....	463,441	Nov. 17	1946	507	57	944
Clothes-line. Chain-link.....	I. H. Frost.....	463,400	Nov. 17	1893	493	57	933
Clothes-line clamp.....	G. Luke.....	455,512	July 7	336	86	56	67
Clothes-line connecting-plate.....	J. H. Brewer.....	443,987	Jan. 6	1	1	54	3
Clothes-line elevator.....	E. E. Taylor.....	456,070	July 14	1220	321	56	240
Clothes-line fastener.....	E. Abbiati.....	449,099	Mar. 31	2957	749	54	1717
Clothes-line hanger.....	P. Hause and B. Saner.....	462,432	Nov. 3	346	85	57	616
Clothes-line holder.....	J. Huth and G. Rex.....	446,522	Feb. 17	1677	409	54	857
Clothes-line or hammock fastener.....	I. M. Rushton.....	452,804	May 26	2196	551	55	1016
Clothes-line. Pinless.....	H. E. Percival.....	446,006	Feb. 10	814	197	54	679
Clothes-line pulley.....	J. J. Leuzinger.....	452,226	May 12	1263	319	55	821
Clothes-line reel.....	G. A. Dennis and R. Evans.....	462,818	Nov. 10	951	248	57	744
Clothes-line reel.....	F. Meiner.....	452,275	May 12	1337	334	55	835
Clothes-line reel.....	E. G. Ormsby.....	456,157	July 21	1350	358	56	276
Clothes-line stretcher.....	W. Somers.....	444,320	Jan. 6	532	138	54	106
Clothes-line support.....	R. McNab.....	463,163	Nov. 17	1507	390	57	860
Clothes-line support. Window.....	E. O. Mason.....	457,360	Aug. 11	738	189	56	676
Clothes-line supporting post. Extensible.....	J. Krem.....	448,582	Mar. 17	2132	534	54	1542
Clothes-pin.....	A. G. Bowman.....	447,504	Mar. 3	395	96	54	1192
Clothes-pin.....	T. Garrison.....	463,504	Nov. 17	2031	532	57	902
Clothes-pin.....	J. A. Johnson.....	465,181	Dec. 15	1875	475	57	1510
Clothes-pin.....	J. Kimmel.....	457,121	Aug. 4	286	75	56	588
Clothes-pin.....	C. A. Ostrom, H. H. Thiellesen, and S. C. Wampler.....	444,363	Jan. 6	506	132	54	101
Clothes-pin.....	J. Schmid.....	446,648	Feb. 17	1865	463	54	894
Clothes-pin.....	H. Tirrill.....	444,603	Jan. 13	975	252	54	202
Clothes-pin. Wire.....	A. E. Francis.....	457,461	Aug. 11	891	230	56	706
Clothes-ponnder.....	S. F. Hawley.....	455,250	June 30	3272	829	55	1800
Clothes-ponnder.....	W. H. Herrington.....	460,966	Oct. 13	665	171	57	136
Clothes-pounder.....	N. B. Little.....	452,525	May 19	1760	412	55	922
Clothes-pounder.....	F. E. Mighell.....	446,625	Feb. 17	1823	450	54	886
Clothes-pounder.....	F. P. Mighell.....	449,555	Mar. 31	3714	933	54	1856
Clothes-pounder.....	J. Phillips.....	464,081	Dec. 1	114	28	57	1159
Clothes-rack.....	G. Alexander and R. Johnson.....	465,551	Dec. 22	2482	633	57	1636
Clothes-rack.....	W. R. Freeman.....	455,874	July 14	932	245	56	188
Clothes-rack.....	O. C. Sobolewski.....	461,964	Oct. 27	2316	574	57	466
Clothes-wringer.....	W. H. Berlis.....	465,553	Dec. 22	2488	635	57	1637
Clothes-wringer.....	L. T. Gorenflo.....	447,609	Mar. 3	551	136	54	1221
Clothes-wringer.....	M. N. Lovell.....	450,080	Apr. 7	638	160	55	125
Clothes-wringer.....	W. P. Mason.....	450,029	Apr. 7	567	141	55	110
Clothes-wringer.....	C. Miller.....	459,341	Sept. 8	1248	307	56	1316
Clothes-wringer.....	M. A. Pigott.....	446,612	Feb. 17	1800	445	54	882
Clothes-wringer.....	G. D. Richard.....	453,348	June 2	261	69	55	1197
Clothes-wringer.....	A. W. Walker.....	465,419	Dec. 15	2253	578	57	1582
Clothes-wringer.....	C. Wheeler, Jr.....	459,244	Sept. 8	1096	{ 267 268 }	56	1285
Clothes-wringer.....	C. Wheeler, Jr.....	459,339	Sept. 8	1243	306	56	1315
Clothes-wringer.....	C. Wheeler, Jr.....	459,340	Sept. 8	1246	307	56	1315
Clothes-wringer.....	C. Wheeler, Jr.....	459,343	Sept. 8	1251	308	56	1316
Clothing-clasp.....	J. V. Pilcher.....	458,485	Aug. 25	2548	621	56	1036
Clothing-protector.....	C. L. Darby.....	462,965	Nov. 10	1190	{ 308 309 }	57	790
Clover-huller.....	L. S. Whiting.....	447,743	Mar. 3	749	187	54	1260
Clover-hullers. Feeder attachment for.....	J. W. Harvey.....	448,148	Mar. 10	1415	362	54	1396
Clover-hullers. Feeder for.....	A. B. Reeves.....	455,866	July 14	933	249	56	191
Clutch.....	A. E. Brown.....	452,162	May 12	1163	{ 294 295 }	55	801
Clutch.....	H. Denney.....	446,664	Feb. 17	1882	468	54	897
Clutch.....	H. J. Gilbert.....	453,324	June 2	224	58, 59	55	1190
Clutch.....	W. Goldsworthy.....	463,895	Nov. 24	2672	695	57	1090
Clutch.....	D. B. Hiser.....	449,415	Mar. 31	3504	881	54	1817
Clutch.....	W. H. Johnson.....	456,827	July 28	2452	646	56	492
Clutch.....	A. Lesperance.....	463,812	Nov. 24	2530	660	57	1064
Clutch.....	J. C. Miller.....	449,378	Mar. 31	3433	864	54	1802
Clutch.....	W. A. Murphy.....	447,033	Feb. 24	2501	622	54	1024
Clutch.....	G. D. Rowell.....	461,713	Oct. 20	1905	471	57	378
Clutch.....	E. D. Schmitt.....	464,481	Dec. 1	726	178	57	1273
Clutch.....	T. H. Worrall and A. Lesperance.....	463,820	Nov. 24	2541	663	57	1067
Clutch.....	W. C. Wright.....	455,978	July 14	1088	266	56	215
Clutch and speed-governor. Friction.....	S. G. Henkel.....	456,652	July 28	2161	573	56	438
Clutch and swivel-support. Friction.....	E. R. Lockwood.....	456,363	July 21	1681	442	56	338
Clutch. Combined friction and positive.....	J. S. Adams.....	460,625	Oct. 6	149	36	57	32
Clutch-complings. Reversing-gear for.....	R. H. Edwards.....	445,772	Feb. 3	431	{ 106 107 }	54	596

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Clutch. Electro-magnetic	E. S. Bennett and H. F. Parshall	454,832	June 23	2526	650	55	1649
Clutch for driving mechanism. Automatic	W. P. Allen	464,447	Dec. 1	674	165	57	1203
Clutch. Friction	E. L. Babcock and E. D. Schmitt	465,106	Dec. 15	1752	443	57	1488
Clutch. Friction	E. M. Barnes	462,659	Nov. 3	683	173	57	682
Clutch. Friction	F. H. Brewster	450,790	Apr. 21	1768	430	55	360
Clutch. Friction	F. H. Brewster	463,350	Nov. 17	1803	471	57	916
Clutch. Friction	L. H. Brightman	456,534	July 21	1966	518	56	392
Clutch. Friction	C. E. Burwell	451,752	May 5	477	118	55	669
Clutch. Friction	W. E. Canedy	464,492	Dec. 8	747	182	57	1286
Clutch. Friction	C. M. Carhart	445,496	Jan. 27	2394	{ 622 623 }	54	492
Clutch. Friction	H. P. Christie	462,623	Nov. 3	633	160	57	673
Clutch. Friction	H. P. Claussen	451,727	May 5	434	105	55	661
Clutch. Friction	H. P. Claussen	451,728	May 5	436	105	55	662
Clutch. Friction	H. C. Crowell	461,929	Oct. 27	2268	561	57	457
Clutch. Friction	H. C. Crowell	465,429	Dec. 15	2267	582	57	1586
Clutch. Friction	W. H. Cummings	449,312	Mar. 31	3312	836	54	1780
Clutch. Friction	G. W. Drake	448,777	Mar. 24	2470	{ 617 618 }	54	1614
Clutch. Friction	O. Flohr	445,247	Jan. 27	2039	524	54	422
Clutch. Friction	W. Goldsworthy	463,894	Nov. 24	2671	696	57	1090
Clutch. Friction	J. L. Hayden	444,436	Jan. 13	713	{ 186 187 }	54	149
Clutch. Friction	C. Hermann	454,435	June 16	1859	493	55	1524
Clutch. Friction	L. J. Hirt	458,578	Sept. 1	47	10	56	1075
Clutch. Friction	L. J. Hirt	458,579	Sept. 1	49	11	56	1075
Clutch. Friction	L. J. Hirt	458,831	Sept. 1	439	106	56	1149
Clutch. Friction	J. F. Holmes and J. P. Tompkins	448,921	Mar. 24	2684	675	54	1655
Clutch. Friction	W. B. Hosford	456,571	July 28	2022	{ 534 535 }	56	410
Clutch. Friction	G. G. Howe	453,810	June 9	991	258	55	1344
Clutch. Friction	B. S. Lewis	461,081	Oct. 13	825	213	57	166
Clutch. Friction	H. I. Mason	465,596	Dec. 22	2555	651	57	1649
Clutch. Friction	J. F. McLaughlin	451,653	May 5	320	78	55	640
Clutch. Friction	P. Medart	459,458	Sept. 15	1440	362	56	1362
Clutch. Friction	F. Miller	457,440	Aug. 11	852	220	56	699
Clutch. Friction	J. A. Moncrief	447,967	Mar. 10	1144	290	54	1341
Clutch. Friction	A. Nelson	457,539	Aug. 11	1013	260	56	729
Clutch. Friction	B. Nolan	450,746	Apr. 21	1698	410	55	347
Clutch. Friction	S. E. Nutting	453,587	June 2	639	163	55	1268
Clutch. Friction	L. S. Pfouts	451,683	May 5	371	91	55	649
Clutch. Friction	A. C. Rice	456,909	July 28	2597	683	56	517
Clutch. Friction	E. Rivett	462,738	Nov. 10	815	213	57	718
Clutch. Friction	A. W. Robinson	465,536	Dec. 22	2459	627	57	1631
Clutch. Friction	E. D. Schmitt	465,213	Dec. 15	1917	486	57	1518
Clutch. Friction	N. Shaw	465,786	Dec. 22	2832	726	57	1704
Clutch. Friction	F. Van Benthuyzen	457,446	Aug. 11	864	225	56	701
Clutch. Friction	J. E. Windle	451,238	Apr. 28	2493	615	55	507
Clutch. Frictional feed	E. A. Walker	454,960	June 30	2768	705	55	1702
Clutch mechanism	J. A. Dyblie	454,261	June 16	1614	424	55	1472
Clutch mechanism	S. K. White	447,019	Feb. 24	2472	{ 615 616 }	54	1019
Clutch. Spring friction	J. F. King and N. Bryant	459,042	Sept. 8	781	189	56	1225
Clutches. Device for operating friction	W. G. Seely	459,175	Sept. 8	995	243	56	1265
Clutching and releasing mechanism	E. C. McFarland	454,141	June 16	1440	{ 376 377 }	55	1438
Coach. Combined sleeping and day	A. A. Brandenburg	444,741	Jan. 13	1197	{ 310 311 }	54	243
Coal-box. Parlor	C. Fishback	464,250	Dec. 1	387	92	57	1207
Coal-bunkers. Cover for	W. W. Reynolds	462,163	Oct. 27	2611	651	57	523
Coal-conveyer	T. H. Lewis	460,643	Oct. 6	6	177	45	37
Coal-crushing machine	P. Richards	466,185	Dec. 29	3499	893	57	1842
Coal-cutting machine	J. H. McEwen and B. E. Cartwright	450,971	Apr. 21	2063	509	55	416
Coal-drill	W. Bulluck	462,199	Oct. 27	2674	669	57	574
Coal-elevator	B. E. Wightman	455,139	June 30	3096	{ 787 788 }	55	1767
Coal into vessels. Apparatus for loading	W. Glünder	451,323	Apr. 28	2625	{ 647 648 649 }	55	533
Coal. Machinery for handling	J. M. Dodge	446,814	Feb. 17	2118	527	54	946
Coal. Means for handling	J. Herrmann	461,576	Oct. 20	1684	{ 412 413 }	57	338
Coal. Means for moving slack	E. D. Johnston	449,122	Mar. 31	2997	757	54	1724
Coal or grain bin	W. Walker	450,267	Apr. 14	930	230	55	185
Coal or grain elevator	M. T. Rose	449,495	Mar. 31	3628	913	54	1841
Coal or other substances. Separator for	G. W. Parker	455,601	July 7	498	129	56	96
Coal-piler	G. J. Kerbert	455,328	July 7	41	12	56	11
Coal piling and removing machinery	J. M. Dodge	453,966	June 9	1189	310	55	1383
Coal-scuttle	C. Whitney	459,619	Sept. 15	1705	426	56	1410
Coal separator and cleaner	A. C. Smith and M. K. Bishop	444,148	June 16	1452	380	55	1440
Coal sizing and cleaning machine	S. Thomas	456,448	July 21	1826	483	56	364
Coal-tar and coke. Apparatus for producing	G. Poterie	453,386	June 2	316	52. 83	55	1207
Coal-tipple	T. B. Murphy	465,720	Dec. 22	2731	696	57	1684
Coal-washing apparatus	C. H. Lauman	464,881	Dec. 8	1341	337	57	1401
Coat	E. Robinson	454,170	June 23	2415	620	55	1631
Coat and hat hook	C. Glover	447,510	Mar. 3	405	99	54	1194
Coat and hat hook	C. Glover	465,259	Dec. 15	1993	510	57	1533
Coat and hat hooks. Manufacture of	C. Glover	448,224	Mar. 17	1556	397	54	1432
Coat and umbrella rack. Combined	C. G. Udell	454,507	June 23	2003	519	55	1554
Coat-hanger	A. M. McDonald	453,586	June 2	639	163	55	1268
Coat-holder	H. R. Rusk	447,976	Mar. 10	1166	295	54	1345
Coat-hook	H. C. Hart	456,030	July 14	1170	306	56	230
Cock	R. N. Pratt	461,084	Oct. 13	832	215	57	167
Cock and coupling for barrels, &c. Combined	T. E. Murray	456,367	July 21	1626	444	56	339

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Cock. Angle.....	F. L. Clark.....	464,451	Dec. 1	680	167	57	1264
Cock. Automatic float.....	A. P. Howes.....	453,784	June 9	960	{ 29 250 }	{ 55	1338
Cock. Balanced ball.....	J. P. Farley.....	464,249	Dec. 1	386	92	57	1207
Cock. Ball.....	J. McNeil.....	457,005	Aug. 4	114	28	56	555
Cock box for water and gas pipes. Stop.....	A. W. Morgan.....	447,078	Feb. 24	2576	639	54	1038
Cock box. Stop.....	E. P. H. Capron.....	450,140	Apr. 14	728	183	55	148
Cock box. Street stop.....	B. Porter.....	444,015	Jan. 6	50	14	54	13
Cock. Compression.....	C. A. Sandlass.....	460,728	Oct. 6	314	77	57	62
Cock. Cylinder.....	W. L. and W. C. Dodge.....	445,979	Feb. 10	755	185	54	670
Cock. Filtering.....	H. Ebert.....	456,242	July 21	1492	396	56	302
Cock for mixing gas and air.....	R. Goebde.....	446,341	Feb. 10	1384	338	54	787
Cock. Gage.....	J. Jungbluth.....	444,360	Jan. 6	588	152	54	117
Cock. Gage.....	M. J. McCarter.....	445,474	Jan. 27	2359	613	54	486
Cock. Gage.....	D. H. Roberts.....	465,729	Dec. 22	2742	699	57	1686
Cock. Gage.....	D. H. Roberts.....	465,766	Dec. 22	2806	719	57	1699
Cock. Gas.....	F. S. Stafford and A. M. Hudson.....	454,234	June 16	1575	415	55	1465
Cock. Locking stop.....	H. F. Wilson.....	448,702	Mar. 24	2343	588	54	1590
Cock. Lubricating stop.....	E. M. Dart.....	464,727	Dec. 8	1121	278	57	1357
Cock or faucet.....	J. F. Lonergan.....	453,012	May 26	2535	642	55	1081
Cock. Self-lubricating stop.....	E. M. Dart.....	464,429	Dec. 1	645	159	57	1257
Cock. Sirup-fountain.....	H. S. Park and J. B. Herron.....	456,159	July 21	1352	359	56	276
Cock. Steam-gage.....	F. Schmedding.....	460,075	Sept. 22	2410	603	56	1552
Cock. Stop.....	R. T. Baines.....	451,746	May 5	468	115	55	667
Cock. Stop and waste.....	P. G. Van Wie.....	450,763	Apr. 21	1722	417	55	352
Cock. Three-way.....	H. Howell.....	453,445	June 2	431	110	55	1229
Cocks of service pipes and valves. Box for stop.....	A. C. Smith.....	455,415	July 7	191	49	56	40
Cockeye.....	M. M. Killinger.....	446,870	Feb. 24	2222	552	54	974
Cocoon-husks. Treating.....	J. T. Davis.....	456,241	July 21	1491	396	56	302
Coffee, &c. Apparatus for preparing infusions of.....	G. R. Wilson.....	452,405	May 19	1565	388	55	887
Coffee-boiler.....	G. A. Phifer.....	444,014	Jan. 6	49	14	54	13
Coffee-cabinet.....	W. F. McLaughlin.....	448,453	Mar. 17	1944	489	54	1506
Coffee canister and mill.....	B. P. Darling.....	455,996	June 9	1237	322	55	1392
Coffee. Collecting the aromatic and volatile substances from.....	N. L. Le Turcq des Rosters.....	449,758	Apr. 7	177	44	55	36
Coffee. Compound for coating roasted.....	F. Menown.....	448,660	Mar. 24	2279	54	1577	
Coffee, &c. Machine for polishing and glazing.....	W. P. Clifford.....	455,246	June 30	3266	828	55	1799
Coffee-making apparatus.....	F. L. Brown.....	447,002	Feb. 24	2438	606	54	1013
Coffee-mill.....	C. Morgan.....	461,784	Oct. 20	2022	493	57	400
Coffee-mill.....	E. H. and C. Morgan.....	444,798	Jan. 13	1276	330	54	257
Coffee-mill.....	A. E. Phillis.....	449,086	Mar. 24	2933	743	54	1703
Coffee or tea. Machine for infusing.....	L. and A. Chronik.....	459,833	Sept. 22	2046	514	56	1484
Coffee or tea pot.....	F. W. De Atley.....	462,656	Nov. 3	677	172	57	682
Coffee or tea pot.....	J. D. Wheelwright.....	450,208	Apr. 14	829	208	55	167
Coffee or tea pots. Cold handle for.....	T. Bauer.....	460,626	Oct. 6	150	36, 37	57	32
Coffee-pot.....	W. A. Barrington.....	453,535	June 2	560	143	55	1253
Coffee-pot.....	T. Glynn.....	463,505	Nov. 17	2032	533	57	962
Coffee-pot.....	B. L. Hutchings.....	463,950	Nov. 24	2759	715	57	1108
Coffee-pot.....	E. F. Newcome.....	454,975	June 30	2807	714	55	1710
Coffee-pot.....	F. Norton.....	445,652	Feb. 3	215	58	54	554
Coffee-pot.....	G. A. Williams.....	444,572	Jan. 13	938	243	54	194
Coffee-pot handle.....	H. F. Anawalt.....	465,747	Dec. 22	2780	710	57	1694
Coffee-roaster.....	A. D. Goodwin.....	461,783	Oct. 20	2021	499	57	400
Coffee-roaster.....	O. Hammarstrom.....	449,850	Apr. 7	316	81	55	63
Coffee-roasters. Motor for.....	E. W. Murphy and W. D. Mixer.....	465,783	Dec. 22	2830	725	57	1704
Coffee-separator.....	G. H. Rich.....	451,236	Apr. 28	2490	614	55	507
Coffee-urn faucet attachment.....	H. Born.....	464,091	Dec. 1	130	32	57	1162
Coffer-dam.....	J. E. Robinson.....	454,383	June 16	1803	470	55	1507
Coffer-dams or piers. Turning corners of.....	J. A. Wakefield and T. M. Nelson.....	453,331	June 2	236	63	55	1193
Coffin-corner.....	J. H. Beers.....	461,730	Oct. 20	1928	477	57	382
Coffin-cover.....	L. G. Kregel.....	454,363	June 16	1770	{ 460 461 }	{ 55	1501
Coffin-fastener.....	C. A. Conklin.....	456,401	July 21	1746	461	56	350
Coffin fastener.....	J. E. Everiss.....	448,946	Mar. 24	2721	686	54	1662
Coffin-handle.....	M. Bremer.....	444,973	Jan. 20	1613	413	54	330
Coffin-handle.....	W. H. Lawson.....	463,865	Nov. 24	2627	684	57	1082
Coffin-handle.....	O. McCarthy.....	446,689	Feb. 17	1927	481	54	905
Coffin-handle.....	E. R. Sargent and W. E. Stevens.....	447,086	Feb. 24	2584	641	54	1040
Coffin-handle.....	L. E. Woodard.....	453,527	June 2	546	140	55	1251
Coffin lid and hinge.....	W. J. Collinson.....	463,488	Nov. 17	2012	{ 526 527 }	{ 57	958
Coffin-lid fastener.....	J. Richey.....	463,690	Nov. 24	2357	617	57	1031
Cog-wheel.....	L. Atwood.....	447,552	Mar. 3	466	115	54	1205
Cogged wheel.....	J. F. Pfetich.....	462,994	Nov. 10	1229	320	57	798
Coiled spring.....	P. C. Morse.....	456,833	July 28	2467	648	56	494
Coiling apparatus. Rod.....	H. Roberts.....	444,653	Jan. 13	1045	272	54	215
Coiling metal rods. Apparatus for.....	H. Roberts.....	444,652	Jan. 13	1044	271	54	215
Coiling wire rods. Apparatus for.....	F. H. Daniels.....	444,550	Jan. 13	899	{ 233 234 }	{ 54	187
Coiling wire rods. Apparatus for.....	F. H. Daniels.....	444,551	Jan. 13	902	234	54	187
Coiling wire rods. Machine for.....	B. H. Gedge.....	458,572	Sept. 1	39	8	56	1073
Coiling wire rods. Mechanism for.....	F. H. Daniels.....	445,965	Feb. 3	732	178	54	656
Coin-actuating mechanism.....	J. Evans.....	462,479	Nov. 3	408	100	57	628
Coin-box.....	G. W. Price.....	464,464	Dec. 1	698	171	57	1268
Coin-case.....	R. D. Culver.....	451,664	May 5	339	83	55	643
Coin-controlled machine.....	V. O. Strobel, H. A. Lewis, and L. G. Laurean.....	462,283	Nov. 3	97	25	57	569
Coin-controlled mechanism.....	V. O. Strobel, H. A. Lewis, and L. G. Laurean.....	462,284	Nov. 3	101	25	57	570
Coin-counter.....	W. P. Huffman.....	456,701	July 28	2240	{ 593 594 }	{ 56	453
Coin-distributor.....	H. Kirkmeyer.....	454,653	June 23	2245	577	55	1596
Coin-handling facilitator.....	B. M. Turnbull.....	465,299	Dec. 15	2037	{ 525 526 }	{ 57	1544

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr.	Vol.	Page.
Coin-holder	H. M. Brigham	449,280	Mar. 31	3243	321	54	1770
Coin-holder	J. T. Cowley	455,309	July 7	19	5	56	6
Coin-holder	F. Michl.	462,220	Oct. 27	2714	684	57	542
Coin-holder	E. Side	463,256	Nov. 17	1648	429	57	888
Coin holder and package	J. Hock	446,185	Feb. 10	1117	273	54	733
Coin holder or package	C. Helm and P. W. Schwander	458,735	Sept. 1	284	69	56	1120
Coin-holders, &c. Locking device for	E. B. Koopman	463,250	Nov. 17	1639	427	57	846
Coin-mailing card	J. E. Evans	464,728	Dec. 8	1122	278	57	1357
Coin-operated machine	W. H. Ashwell	452,068	May 12	998	253	55	772
Coin-operated machine	C. Middlebrook	453,496	June 2	505	129 130	55	1243
Coin-receptacle	J. Hock	451,325	Apr. 28	2629	649	55	534
Coin-receptacle	E. W. Roberts	465,649	Dec. 22	2634	672	57	1665
Coin-separator	A. C. Bolton	459,673	Sept. 15	1796	451	56	1428
Coin-wrapper	W. S. Gage	445,445	Jan. 27	2320	602	54	479
Coins. Machine for the assortment of	H. C. Hart	461,704	Oct. 20	1894	468	57	376
Coke and cinder conveyer	W. C. Van Horn	460,236	Sept. 29	2644	659	56	1605
Coke. Apparatus for making	E. T. Cox	445,394	Jan. 27	2246	583	54	464
Coke from ovens. Apparatus for extracting	T. Smith	446,936	Feb. 24	2342	582	54	995
Coke-making apparatus	F. J. Jones	451,488	May 5	67	16	55	592
Coke-oven	A. M. Chambers and T. Smith	459,064	Sept. 8	814	197	56	1231
Coke-oven	W. Fritsch	455,684	July 7	619	163	56	120
Coke-oven plant	A. C. Cochran	448,636	Mar. 24	2241	562	54	1570
Coke ovens. Means for utilizing waste heat from	J. A. Beck	464,844	Dec. 8	1287	322	57	1390
Collapsible cup and bottle-stepper	F. W. Perry	450,838	Apr. 21	1853	451	55	375
Collar	J. A. Scriven	460,787	Oct. 6	405	98	57	80
Collar and hames. Combined horse	D. Paquet	460,757	Oct. 6	356	87	57	70
Collar and head-covering. Combined coat	F. W. Bandelow	459,606	Sept. 15	1680	420	56	1406
Collar and necktie holder	G. F. Carruthers	461,319	Oct. 13	1197	305	57	240
Collar and tie holder. Shirt	W. H. Barbour	444,516	Jan. 13	846	220	54	177
Collar. Animal	G. R. Sagelsdorff	448,546	Mar. 17	2077	521	54	1532
Collar. Breast	T. W. Fisher	449,471	Mar. 31	3596	906	54	1834
Collar coupling. Horse	G. C. Hale	452,929	May 26	2395	606	55	1053
Collar fastener	F. H. Kiekenapp	460,234	Sept. 29	2654	661	56	1607
Collar fastener. Breast	J. J. Turner	456,450	July 21	1831	485	56	365
Collar fastener. Horse	P. P. Armour	444,625	Jan. 13	1004	262	54	207
Collar fastener. Horse	B. H. Helming, Jr., and J. M. McIntyre	445,177	Jan. 27	1936	500	54	402
Collar fastener. Horse	C. Kiper	464,225	Dec. 1	345	83	57	1199
Collar fastener. Horse	O. P. Letchworth	453,786	June 9	964	250	55	1338
Collar fastener. Horse	A. E. Saxe	461,715	Oct. 20	1908	472	57	379
Collar fastener. Horse	J. H. Schmitz	455,288	Aug. 25	2230	545	56	977
Collar fastener. Horse	H. F. Seavert	447,586	Mar. 3	519	127	54	1214
Collar fastener. Horse	J. Thien	450,389	Apr. 14	1131	277	55	223
Collar fastener. Horse	C. J. Weiss	453,789	June 9	966	251	55	1339
Collar fastener. Horse	C. B. White	459,824	Sept. 22	2032	509	56	1481
Collar fastening. Horse	B. M. Johnson and J. Reichert	446,099	Feb. 10	961	236	54	706
Collar for flannel shirts	A. H. Anderson	463,884	Nov. 24	2657	692	57	1087
Collar. Horse	E. L. Brundage	461,419	Oct. 20	1376	348	57	280
Collar. Horse	G. S. Crosby	452,564	May 19	1815	456	55	932
Collar. Horse	G. C. Hale	452,928	May 26	2394	605	55	1053
Collar. Horse	S. T. Marlette	449,488	Mar. 31	3620	911	54	1839
Collar. Horse	C. Mollenhoff	445,069	Jan. 20	1757	453	54	359
Collar. Horse	J. F. Trautmann	447,649	Mar. 3	610	150	54	1233
Collar mold. Horse	S. H. Randall	453,565	June 2	602	154	55	1261
Collar or cuff protector	E. J. B. Bowyer	454,201	June 16	1532	403	55	1456
Collars or cuffs. Apparatus for thickening and protecting the edges of	J. W. Hyatt	455,333	July 7	45	13	56	12
Collar. Ox	M. T. Whaley	464,539	Dec. 8	822	202	57	1301
Collar-pad	F. M. Limbaugh	444,003	Jan. 6	32	10	54	10
Collar-pad fastener	J. C. Mendenhall	452,079	May 12	1023	258	55	775
Collar-pad fastener	W. Williams	451,965	May 12	806	205	55	739
Collar pad. Horse	R. H. and J. Morrow	453,497	June 2	508	130	55	1244
Collar-stuffing machine	J. S. Schram	448,268	Mar. 17	1626	415	54	1446
Collar-stuffing machine. Horse	W. J. Webber	465,302	Dec. 15	2062	527	57	1545
Collars. Apparatus for forming and attaching fastenings to horse	J. F. Glidden	450,723	Apr. 21	1667	402	53	341
Collars. Stiffener for flannel-shirt	L. S. Samuel	447,364	Mar. 3	142	39	54	114
Color in lead tubes. Metallic water	L. Rosenfeld	452,583	May 19	1845	464	55	938
Colored impressions. Producing	R. Schorr	446,004	Feb. 10	811	.....	54	678
Colors. Manufacture of azo	R. Greville-Williams. (Reissue)	11,179	July 21	1979	.....	56	394
Colors. Manufacture of mixed azo	R. Greville-Williams. (Reissue)	11,178	July 21	1978	.....	56	394
Coloring and finishing fabrics	V. G. Bloede	449,104	Mar. 31	2963	.....	54	1718
Colter-clearer	D. Demers	449,669	Apr. 7	36	9	55	9
Colter fastening. Plow	R. M. Sherrod	464,525	Dec. 8	805	197	57	1298
Colter for plows. Adjustable wheel	L. McCleary and J. Stone	464,439	Dec. 1	664	163	57	1261
Colter-holder for plows	E. M. Hickman	446,452	Feb. 17	1572	386	54	837
Colter. Plow	E. C. Westervelt and C. W. Clapp	458,086	Aug. 18	1884	491	56	906
Column. Architectural	J. M. Larimer	453,341	June 2	254	67	55	1196
Column. Architectural	J. M. Larimer	463,318	Nov. 17	1748	457 458	57	906
Column. Building-front	F. Mesker	449,553	Mar. 31	3713	932	54	1856
Column. Building-front	F. Mesker	449,554	Mar. 31	3713	932	54	1856
Column. Building-front	F. Mesker	460,481	Sept. 29	3032	759	56	1678
Comb	See Curry-comb. Invisible comb.						
Comb	Electric comb. Toilet-comb.						
Comb	W. H. Bagshaw	452,156	May 12	1151	291	55	798
Comb and the manufacture thereof	H. G. Gniff	461,977	Oct. 27	2336	579	57	470
Comb-apron	H. Braum	453,575	June 2	620	158	55	1264
Comb-cleaner	A. R. Eaton	452,365	May 19	1496	370	55	874
Comb-frames. Tongs for handling	C. D. Holt	453,905	June 9	1108	290	55	1316
Comb-ing-machine	M. Fifth and J. Robertshaw	466,227	Dec. 29	3561	912	57	1853
Comb-ing-machine	A. Smith and H. W. Whitehead	466,192	Dec. 29	3510	898	57	1844

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Combing-machine	J. Thorp.	464,718	Dec. 8	1108	275	57	1355
Combing-machines. Mechanism for actuating the dabbing-brushes of	J. Parkin	460,654	Oct. 6	192	49	57	40
Combination bolt and washer	C. E. Weber	462,752	Nov. 10	836	219	57	721
Combination-lock	J. B. Farnsworth	447,639	Mar. 3	585	147	54	1230
Combination-lock	J. McLane	458,404	Aug. 25	2125	590	56	1014
Combination-lock	J. H. and H. Morris	451,334	Apr. 28	2639	{ 652 } 553	55	536
Combination-lock	T. D. Morris	452,887	May 26	2328	587	55	1040
Combination-lock	S. K. Weymouth	450,207	Apr. 14	826	208	55	167
Combination-lock	J. Whittington	463,128	Nov. 10	1449	374	57	841
Combination-lock	E. W. Wilson	448,175	Mar. 10	1461	372	54	1405
Combination-lock	W. C. Young	449,924	Apr. 7	418	104	55	82
Combustion mechanism	T. Brown	459,518	Sept. 15	1536	383	56	1379
Combustion. Utilizing products of	E. Biedermann and E. W. Harvey	451,612	May 5	255	60, 61	55	628
Commode	G. Brummer	455,387	July 7	144	37	56	31
Commode	F. Koskul	463,279	Nov. 17	1683	440	57	894
Commode	D. H. Murphy	454,128	June 16	1418	{ 370 } 371	55	1434
Commode	E. C. Saunders	459,148	Sept. 8	945	228	56	1257
Commode	J. Speed	456,503	July 21	1910	505	56	381
Commode	I. W. Sylvester	465,569	Dec. 22	2507	640	57	1641
Commode or other pail cover	R. P. Metz.	459,253	Sept. 8	1108	270	56	1288
Communicating information. Means for	P. B. Delany	460,615	Apr. 21	1470	361	55	297
Communications. Device for forming and deciphering secret	M. A. Wier	449,723	Apr. 7	120	31	55	26
Commutator	W. Hornberger	448,040	Mar. 10	1266	323	54	1365
Commutator	S. H. Short	462,880	Nov. 10	1052	273	57	763
Commutator	E. A. Sperry	453,822	June 9	1005	262	55	1346
Commutator and brush	H. F. Marshall	446,536	Feb. 17	1700	417	54	262
Commutator-brush	F. O. Blackwell	462,466	Nov. 3	395	97	57	625
Commutator-brush	K. G. Frietsch	448,331	Mar. 17	1755	444	54	1471
Commutator-brush	W. Main	447,469	Mar. 3	341	85, 86	54	1182
Commutator-brush	E. W. Rice, Jr.	447,352	Mar. 3	119	31	54	1140
Commutator-brush and holder	R. Lundell	459,367	Sept. 8	1283	316	56	1323
Commutator-brush holder	I. H. Bartholomew	452,561	May 19	1811	455	55	932
Commutator-brush holder	H. H. Blades	459,739	Sept. 22	1903	480	56	1455
Commutator-brush holder for electric motors.	G. H. Condict	445,521	Jan. 27	2436	635	54	500
Commutator-brushes. Actuating device for moving	C. J. Van Depoele	461,297	Oct. 13	1166	297	57	233
Commutator connection for dynamo-electric machines.	C. O. C. Billberg	465,233	Dec. 15	1947	496	57	1525
Commutator-cylinder and making the same	R. Lundell	459,368	Sept. 8	1285	317	56	1323
Commutator for dynamo-electric generators and motors.	H. Davis and A. H. Stokes	453,858	June 9	1044	273	55	1355
Commutators for dynamos or motors.	C. A. Lieb	454,488	June 23	1968	513	55	1548
Commutator for electric motors	H. Duenner	449,774	Apr. 7	202	51, 52	55	41
Commutator for electrical machines	W. W. Vail	463,694	Nov. 24	2365	619	57	1032
Commutator or contact-brush	L. Paget	457,327	Aug. 4	646	169	56	653
Commutator-pattern	P. F. Leubart	445,319	Jan. 27	2142	554	54	443
Commutator-truer	D. McGeniss	448,540	Mar. 17	2067	518	54	1530
Commutator-turning device	A. K. Bonta	459,572	Sept. 15	1623	407	56	1396
Commutators. Conductor-fastening for	S. H. Short	459,820	Sept. 22	2026	508	56	1479
Commutators. Holder for carbon brushes of	C. H. Farrington	455,856	July 14	905	237	56	182
Companion-ways or hatches. Guard for	W. Queen	458,131	Aug. 18	1957	508	56	919
Compartment-box	J. J. Leech	459,587	Sept. 15	1653	413	56	1401
Compartment-case for sheets, cards, or tickets.	C. M. Wilson	459,061	Sept. 8	809	{ 195 } 196	56	1230
Compass. Ship's	T. C. Knudsen and A. Nörholm	457,161	Aug. 4	349	89, 90	56	600
Compasses	J. V. Collins	459,519	Sept. 15	1538	384	56	1379
Compasses. Beam-	W. H. Hattel	455,461	July 7	256	65	56	52
Compasses for laying out stair-curves	I. J. Palmer	461,367	Oct. 13	1286	326	57	257
Compasses. Pencil-	R. H. Ingersoll	463,901	Nov. 24	2679	698	57	1092
Composition fabric	P. R. Bradley	453,689	June 9	807	206	55	1309
Composition of matter	G. W. Abell	419,653	Apr. 7	1		55	3
Composition of matter	W. W. Dunnett	450,560	Apr. 14	1373		55	271
Composition of matter	G. W. Melville	454,489	June 23	1969		55	1548
Composition of matter	A. Moffatt	445,815	Feb. 3	509		54	611
Composition of matter	F. Salathé	452,763	May 19	2135		55	995
Composition of matter	C. Straub	448,463	Mar. 17	1957		54	1509
Compound engine	C. H. Batchellor	459,851	Sept. 22	2070	520	56	1489
Compound engine	F. W. Dean	459,779	Sept. 22	1958	494	56	1466
Compound engine	A. J. Pitkin	450,374	Apr. 14	1112	{ 272 } 273	55	219
Compound engine	S. F. Prince, Jr.	463,450	Nov. 17	1954	510	57	946
Compound engine	G. F. Rounds	455,670	July 7	600	158	56	117
Compound engine	W. M. Smith	464,833	Dec. 8	1271	{ 318 } 319 320	57	1387
Compound engine	S. Wilcox	445,386	Jan. 27	2233	579	54	462
Compressing apparatus	F. Windhausen	460,696	Oct. 6	270	65, 66	57	52
Compressing-rolls. Adjusting device for	J. G. Goldthwaite	454,402	June 16	1825	478	55	1511
Compressor mechanism	H. La Casse and S. Wile	444,755	Jan. 13	1216	{ 316 } 317	54	246
Concentrating apparatus	R. D. Gates	451,926	May 12	748	188	55	727
Concentrating apparatus	J. K. Hollowell	447,029	Feb. 24	2490	{ 619 } 620	54	1022
Concentrator	S. Bertenshaw	445,154	Jan. 27	1899	490	54	395
Concentrator	G. Lang	460,814	Oct. 6	435	{ 109 } 110	57	87
Concentrator	B. Tyson	461,692	Oct. 20	1867	463	57	372
Concentrator	B. Tyson	461,693	Oct. 20	1872	464	57	372
Concentrator and amalgamator	J. Rodermond	456,852	July 28	2506	657	56	500
Concentrator for minerals, &c. Centrifugal	T. Clarkson	459,267	Sept. 8	1128	{ 275 } 276	56	1292

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. et.	Vol.	Page.
Concrete block and making the same	G. Richardson	461,890	Oct. 27	2194	541	57	443
Concrete floors. Illuminating-panel in	E. L. Ransome	448,993	Mar. 24	2787	705	54	1675
Concrete-mixer	S. R. Scharf	447,366	Mar. 3	144	39, 40	54	1145
Concrete mixtures. Machine for solidifying	G. Richardson	461,889	Oct. 27	2191	{ 540 541 }	57	442
Condenser	R. P. Barnstead	456,923	July 28	2625	688	56	523
Condenser	E. Beard	466,213	Dec. 29	3539	906	57	1849
Condenser	J. McGarvey	460,398	Sept. 29	2912	727	56	1655
Condenser	W. E. Prall	457,791	Aug. 18	1413	366	56	816
Condenser	G. H. Simpson	454,386	June 16	1867	471	55	1508
Condenser	E. Theisen	445,096	Jan. 20	1792	{ 462 463 }	54	366
Condenser. Electrical	N. Tesla	464,667	Dec. 8	1017	254	57	1339
Condenser-head for exhaust-pipes	C. Knell	455,405	July 7	170	44	56	36
Condenser. Jet	W. H. Ross	458,540	Aug. 25	2632	640	56	1054
Condenser, oil-extractor, and feed-water heater.	F. Bauer	456,464	July 21	1848	490	56	369
Combined steam-							
Condenser-regulator. Electric	J. McBride	456,835	July 28	2469	649	56	494
Condenser. Smoke	W. J. Batchman	463,184	Nov. 17	1537	401	57	866
Condenser. Steam	F. L. McGahan	462,274	Nov. 3	85	20	57	567
Condenser. Surface	L. R. Alberger	447,285	Mar. 3	1	1	54	1119
Condenser. Surface	G. Hörner	448,521	Mar. 17	2041	511	54	1525
Condenser. Surface	C. C. Worthington	447,396	Mar. 3	198	52, 53	54	1156
Condenser. Water-jet	E. Körting	456,828	July 28	2453	646	56	492
Condensing apparatus	J. Caven	455,471	July 7	272	69	56	55
Condensing apparatus	E. Theisen	447,123	Feb. 24	2641	655	54	1052
Condensing exhaust-steam. Apparatus for	F. L. McGahan	462,271	Nov. 3	81	19, 20	57	567
Conductors. Automatic disconnecter for overhead	A. L. Johnston	459,839	Sept. 22	2053	516	56	1485
Conductors. Automatic disconnecter for overhead	A. L. Johnston	459,840	Sept. 22	2054	516	56	1486
Conductors. Machine for covering	C. Klotzbach	463,809	Nov. 24	2526	659	57	1063
Conductors. Machine for covering	C. Klotzbach	463,810	Nov. 24	2528	659	57	1064
Conductors. Treating	J. B. Williams	452,091	May 12	1039	263	55	778
Conductors. Turn-out and crossing for line	S. H. Shert	447,495	Mar. 3	385	94	54	1190
Conduit for buildings. Surface	R. W. Gibson	463,830	Nov. 24	2558	666	57	1070
Conduit for underground trolley-wires	H. J. Medbery	447,338	Mar. 3	94	26	54	1136
Conduit-inspector	J. L. Blackwell	444,687	Jan. 13	1105	286	54	226
Conduits. Threading-rod for underground	F. G. Bolles	462,648	Nov. 3	669	169	57	680
Confectioners. Cooling-slab for	G. S. Collum	449,577	Mar. 31	3749	941	54	1862
Confectioner's dropping-machine	J. Beutel	456,530	July 21	1960	516	56	390
Confectioner's machine	A. W. Paris	456,336	July 21	1634	{ 432 433 }	56	329
Confectioners' use. Beater and mixer for	J. W. Condon	449,463	Mar. 31	3583	902	54	1831
Confectioners' use. Separating and filling machine for	N. A. Clacher	449,668	Apr. 7	34	8, 9	55	9
Confectionery-drops. Machine for manufacturing	M. M. June	458,809	Sept. 1	389	94	56	1140
Confectionery-machine	G. Geyer	461,630	Oct. 20	1774	437	57	353
Confectionery. Machine for making	P. Knorpp	454,278	June 16	1641	431	55	1477
Confections, &c. Machine for molding	J. C. Ruby	451,523	May 5	116	29, 30	55	601
Confections. Machine for molding	J. C. Ruby	457,372	Aug. 11	753	194	56	679
Conflagration-arrester	F. N. Puckett	444,961	Jan. 20	1599	408	54	327
Connecting-rod	G. S. Heath	445,402	Jan. 27	2264	587	54	467
Connecting-rod	L. H. Kenyon	459,097	Sept. 8	873	210	56	1242
Connecting-rod. Solid end	A. K. Mansfield	453,015	May 26	2540	642	55	1082
Connecting-rods. Device for regulating the throw of	H. Staples	445,323	Jan. 27	2148	556	54	445
Construction and paving block	J. P. Meyer	452,412	May 19	1573	390	55	899
Construction apparatus	P. and G. Keller	452,274	May 12	1335	333	55	835
Container and grinder. Combined	H. L. Marbach	449,225	Mar. 31	3152	795	54	1753
Controlling mechanism	C. R. Pratt	459,090	Sept. 8	848	205	56	1236
Convertible chair	E. S. French	445,774	Feb. 3	434	{ 107 108 }	54	597
Convertible chair	L. Jorgensen	454,276	June 16	1637	430	55	1477
Convertible chair	C. F. Kramer	447,432	Mar. 3	261	65	54	1167
Convertible chair	H. Orchard	444,845	Jan. 20	1360	352	54	282
Convertible chair for children	A. Ostlund	452,163	May 12	1177	298	55	804
Convertible elevator and dumb-waiter	S. A. Morse	452,888	May 26	2329	588	55	1040
Conveyer	H. Birkholz	455,384	July 7	138	36	56	30
Conveyer	J. Comley and H. J. Vieth	465,463	Dec. 22	2322	597	57	1606
Conveyer	J. M. Finch	460,914	Oct. 6	589	149	57	115
Conveyer	C. J. Hartley	446,597	Feb. 17	1780	440	54	878
Conveyer	C. W. Hunt	466,039	Dec. 29	3281	837	57	1799
Conveyer	C. W. Hunt	466,040	Dec. 29	3283	837	57	1799
Conveyer	C. W. Hunt	466,041	Dec. 29	3284	837	57	1800
Conveyer	C. W. Hunt	466,043	Dec. 29	3286	838	57	1800
Conveyer	J. J. Kymal	459,113	Sept. 8	897	215	56	1247
Conveyer	C. S. Wells. (Reissue)	11,206	Dec. 1	736	180	57	1275
Conveyer. Endless traveling	I. H. Gaither	460,229	Dec. 29	3565	913	57	1834
Conveyer. Pneumatic	J. W. Beach	444,038	Jan. 6	90	23, 24	54	21
Conveyer-regulator	C. W. Hunt	466,042	Dec. 29	3285	838	57	1800
Conveyer-trough bottom	J. M. Dodge	446,436	Feb. 17	1543	379	54	830
Conveying apparatus	T. M. Kenney	465,529	Dec. 22	2442	622	57	1628
Conveying apparatus	T. S. Miller	458,183	Aug. 25	2038	528	56	941
Conveying apparatus	C. M. North	466,279	Dec. 29	3642	{ 931 932 }	57	1869
Cooker	J. H. Gardner	460,860	Oct. 6	497	127	57	98
Cooker and dish-washer. Combined steam-	H. A. Shepard	457,224	Aug. 4	460	121	56	619
Cooker. Steam	A. M. Hobson	466,137	Dec. 29	3432	879	57	1829
Cooker. Steam	C. W. Sterick	464,834	Dec. 8	1274	320	57	1387
Cooking apparatus	P. L. Dermigny	463,495	Nov. 17	2020	529	57	959
Cooking apparatus	J. Gibbons	462,921	Nov. 10	1119	{ 291 292 }	57	776
Cooking apparatus	G. Noakes and J. Gibbons	463,073	Nov. 10	1351	350	57	822
Cooking apparatus. Domestic steam-	A. W. Eldredge	458,417	Aug. 25	2441	594	56	1017
Cooking apparatus. Egu-	W. H. Simonds	461,989	Oct. 27	2353	584	57	473
Cooking apparatus. Electric	J. O'Meara	446,174	Feb. 10	1099	270	54	730

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Cooking apparatus. Spirit.....	E. Otto.....	451,837	May 5	594	147	55	693
Cooking device. Egg.....	H. L. Long.....	462,929	Nov. 10	1144	296	57	780
Cooking-rack.....	W. Earle.....	446,855	Feb. 24	2194	546	54	969
Cooking utensil.....	I. Stegemann.....	455,803	July 14	832	218	56	168
Cooking-vessel.....	F. W. Judd.....	451,054	Apr. 28	2190	540	55	449
Cooking-vessel.....	S. H. Mitchell.....	457,208	Aug. 4	435	114	56	614
Cooking-vessel. Steam.....	W. D. Halliburton and C. T. Owens.	463,228	Nov. 17	1600	417	57	878
Cooler:							
See Beer-cooler. Milk-cooler.							
Candy-cream cooler. Water-cooler.							
Liquid-cooler.							
Cooler and freezer.....	P. L. Dermigny.....	455,663	July 7	592	155	56	115
Cooling or refrigerating apparatus	S. B. Clemmens.....	449,615	Mar. 31	3824	958	54	1876
Cooling wine, &c. Apparatus for	T. W. Zimmerman and G. Ingram	459,327	Sept. 8	1216	297	56	1310
Coop. Chicken.....	R. Ehmer.....	459,105	Sept. 8	887	213	56	1245
Coop. Chicken.....	C. A. Harp.....	448,959	Mar. 21	2741	691	54	1666
Coop. Folding chicken.....	A. F. Trouard.....	465,438	Dec. 15	2284	586	57	1589
Cop.....	W. Duchemin.....	460,745	Oct. 6	342	84	57	68
Cop or bobbin.....	E. H. King.....	458,369	Aug. 25	2368	577	56	1003
Cops. Box for steaming.....	M. E. Hastings.....	459,004	Sept. 8	709	174	56	1212
Copier. Letter.....	E. W. Wickey.....	455,823	July 14	867	227	56	174
Copies from ink impressions. Producing press	C. Mitchell.....	441,120	Jan. 6	332		54	67
Copper free from oxidation. Process of and apparatus for producing hot-rolled	G. W. Cummins.....	445,691	Feb. 3	290	76	54	569
Copper matte. Treating.....	P. Manhes.....	456,516	July 21	1936	511	56	386
Copper pyrites. Extracting.....	T. A. Edison.....	465,250	Dec. 15	1972		57	1530
Copper-holder.....	K. Agee.....	447,651	Mar. 3	612	151	54	1233
Copy-holder.....	J. B. Hammond.....	449,934	Apr. 7	432	108	55	84
Copy-holder.....	T. K. S. McGriff.....	444,612	Jan. 13	988	256	54	204
Copy-holder.....	M. R. Salter.....	448,457	Mar. 17	1948	490	54	1507
Copy-holder.....	W. J. Still.....	449,010	Mar. 24	2818	714	54	1681
Copy-holder.....	W. H. and J. O. Thomas.....	460,406	Sept. 29	2920	730	56	1657
Copying and recording tablet. Duplex.....	J. C. Browning.....	464,292	Dec. 1	455	109	57	1221
Copying and recording apparatus. Autographic.....	A. L. Peirce.....	457,289	Aug. 4	570	151	56	639
Copying-book. Letter-press.....	B. Brower.....	464,748	Dec. 8	1150	286	57	1362
Copying-book pad.....	E. R. Solliday.....	451,340	Apr. 28	2646	654	55	538
Copying device.....	W. E. A. Innes.....	448,346	Mar. 17	1781	450	54	1476
Copying moistener. Letter.....	C. E. Dodd.....	451,400	Apr. 28	2730	678	55	553
Copying-pad for autographic copying.....	Z. T. Raynor.....	455,455	July 7	246	63	56	50
Copying. Pad for rapid.....	L. Neuhaus and F. F. Daus.....	445,977	Feb. 10	752		54	670
Copying pads moist. Receptacle for keeping press-	J. K. Van Slyke.....	456,453	July 21	1834	486	56	366
Copying pictures. Device for.....	L. A. Hagan.....	464,359	Dec. 1	557	136	57	1240
Copying press.....	L. Ehrlich.....	450,563	Apr. 14	1376	339	55	271
Copying press.....	W. Hastie.....	448,858	Mar. 24	2601	653	54	1639
Copying press.....	M. Scheid.....	464,392	Dec. 1	600	148	57	1248
Copying press and book. Combined letter-	O. N. McClintock.....	444,204	Jan. 6	368	91	54	74
Copying-roller. Hand.....	C. E. Dodd.....	451,401	Apr. 28	2731	678	55	553
Cord and tassel.....	H. C. Lees.....	464,791	Dec. 8	1219	303	57	1376
Cord hanging and adjusting device.....	J. A. Matteson.....	447,889	Mar. 10	1010	255	54	1316
Cord. Machine for making ornamental.....	A. W. Durr.....	449,038	Mar. 24	2859	727	54	1680
Cord-receptacle.....	H. T. Simmons.....	447,913	Mar. 10	1058	265	54	1335
Cordage. Machine for making braided.....	O. R. Van Vechten.....	445,256	Jan. 27	2059	530	54	426
Core-making machine. Centrifugal.....	J. E. McCanna.....	463,536	Nov. 17	2085	548	57	971
Core. Device for supporting and centering.....	F. L. Badger.....	457,021	Aug. 4	135	33	56	559
Cork-cutting machine.....	G. W. Robinson.....	457,671	Aug. 11	1211	311	56	767
Cork-cutting machine.....	W. J. Stoop.....	464,593	Dec. 8	898	221	57	1316
Cork-grinding machine.....	C. D. Armstrong.....	447,860	Mar. 10	965	242	54	1308
Cork-puller.....	E. Walker.....	452,625	May 19	1912	480	55	951
Cork-securer.....	E. E. Thorpe.....	452,089	May 12	1034	262	55	777
Cork. Treating.....	J. T. Smith.....	456,068	July 14	1216	320	56	239
Cork-wiring machine.....	B. Merritt.....	451,062	Apr. 28	2197	543	55	450
Corks by grinding. Machine for the manufacture of	J. Lowman and J. Howard. (Re-issue.)	11,160	May 5	697	175	55	710
Corks from bottles. Device for removing.....	H. J. Williams.....	450,957	Apr. 21	2034	502	55	410
Corking-machine.....	A. Siebert.....	461,285	Oct. 13	1144	292	57	228
Corking machine. Bottle.....	J. J. Taylor, 2d.....	445,095	Jan. 20	1789	460	54	365
Corkscrew.....	G. W. Campbell and J. D. Hough.....	445,539	Feb. 3	17	4	54	514
Corkscrew.....	D. W. Davis.....	455,826	July 14	872	228	56	175
Corkscrew.....	H. J. Ennis.....	454,725	June 23	2350	603	55	1618
Corkscrew.....	C. Hollweg.....	447,185	Feb. 24	2770	686	54	1075
Corkscrew.....	W. Wilkinson.....	458,087	Aug. 18	1885	491	56	906
Corn-cob smoking-pipes. Making.....	H. Lamparter, Jr.....	448,572	Mar. 17	2119		54	1540
Corn-conveyer.....	W. Riedel.....	449,703	Apr. 7	91	24	55	20
Corn-crib.....	J. Z. Benson.....	458,936	Sept. 1	607	149	56	1183
Corn-crib and granary. Portable.....	C. I. and A. E. Cook and H. M. Britton.	450,506	Apr. 14	1305	320	55	257
Corn-crib. Portable.....	C. I. Cook and H. M. Britton.....	450,505	Apr. 14	1304	319	55	257
Corn cutter. Green.....	S. D. Warfield.....	448,389	Mar. 17	1845	463	54	1487
Corn-cutting machine.....	H. Willits.....	463,930	Nov. 24	2731	709	57	1101
Corn-extractor.....	C. H. Guess.....	466,097	Dec. 29	3363	858	57	1816
Corn-hulling machine.....	J. Ritty.....	464,764	Dec. 8	1175	292	57	1367
Corn-husking and fodder-cutting machine.....	J. A. Webber.....	446,747	Feb. 17	2015	502	54	923
Corn. Machine for cutting and shelling.....	P. Hobler and A. S. Peck.....	465,134	Dec. 15	1801	456	57	1496
Corn or cotton stalk cutter.....	M. B. Banowitz.....	454,617	June 23	2191	565	55	1587

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Corn-popper	F. Jones	453,744	June 9	888	231	55	1324
Corn-popper	G. E. Nye	458,406	Aug. 25	2426	591	56	1014
Corn-popper	H. B. Yaryan	450,279	Apr. 14	949	236	55	189
Corn-popping machine	J. C. Tutt	463,878	Nov. 24	2649	690	57	1086
Corn-sheller	H. A. Adams	459,196	Sept. 8	1023	250	56	1271
Corn-sheller	J. A. Adams	456,460	July 21	1843	489	56	368
Corn-sheller	C. B. Bander	459,953	Sept. 22	2230	560	56	1518
Corn-sheller	F. H. Barnott	462,108	Oct. 27	2537	630	57	508
Corn-sheller	O. E. Davidson	448,941	Mar. 24	2713	{ 684 685 }	{ 54 55 }	1661
Corn-sheller	W. C. Langenau	450,629	Apr. 21	1493	367	55	301
Corn-sheller	C. Roberts	458,024	Aug. 18	1800	469	56	888
Corn-sheller	W. F. Steinbaugh	449,637	Mar. 31	3863	967	54	1884
Corn-sheller	C. C. Townsley	453,270	June 2	142	40	55	1175
Corn shock and bundle binder	A. J. Colburn	453,038	May 26	2574	650	55	1088
Cornstalk-cutter	L. P. Butler	450,611	Apr. 21	1462	359	55	235
Cornstalk-cutter	E. Lind	453,121	May 26	2712	683	55	1116
Cornstalks, straw, and roots. Machine for cutting	S. W. Curtiss and C. S. Middleton	452,262	May 12	1321	330	55	832
Corner shield or protector	D. H. Rockwell	462,164	Oct. 27	2612	651	57	523
Corner-strap	M. E. McMaster	450,472	Apr. 14	1255	306	55	245
Corner-strip	F. Kees	448,187	Mar. 10	1480	377	54	1409
Coronet-valve	E. A. Gates	455,562	July 7	426	114	56	82
Corsets. Mouth-piece for	C. H. Van Allen	463,084	Nov. 10	1366	353	57	825
Cornice	F. G. Caldwell	453,544	June 2	571	145	55	1256
Cornice	H. Fritz	460,718	Oct. 6	300	73	57	59
Cornice. Curtain	G. E. Strauss	444,237	Jan. 6	417	104	54	82
Corpse eye-closer	J. M. Spear	450,980	Apr. 21	2077	513	55	418
Corrugating-machine	H. A. Huefner	461,875	Dec. 8	1334	334	57	1319
Corset	E. Foley	458,309	Aug. 25	2264	553	56	983
Corset	E. C. Foster	446,968	Feb. 24	2390	594	54	1004
Corset	W. W. Gould	454,469	June 23	1940	{ 505 506 }	{ 55 55 }	1542
Corset	J. S. Crotty	461,668	Oct. 20	1833	453	57	364
Corset	J. F. J. Gunning	452,968	May 26	2467	624	55	1068
Corset	L. Harmon	454,167	June 16	1479	{ 388 389 }	{ 55 55 }	1446
Corset	M. E. Lunn	454,981	June 30	2815	716	55	1712
Corset	E. J. Swartwout	458,262	Aug. 25	2189	534	56	969
Corset attachment	R. W. Parramore	465,434	Dec. 15	2274	584	57	1587
Corset-clasp	F. L. Bowles	448,631	Mar. 24	2236	561	54	1560
Corset-clasp	J. Day	459,562	Sept. 15	1609	404	56	1393
Corset-clasp	F. B. Spooner	448,891	Mar. 24	2642	663	54	1646
Corset-fastening	B. Bernstein	451,020	Apr. 28	2144	530	55	439
Corset-fastening	T. J. Brough	447,630	Mar. 3	584	144	54	1227
Corset-fastening	C. H. Littleton	462,054	Oct. 27	2447	606	57	491
Corset-fastening	M. May	448,820	Mar. 24	2527	633	54	1625
Corset-fastening	W. F. McGee	451,506	May 5	97	24	55	597
Corset-sections. Cording	F. M. Baker	455,558	July 7	419	111	56	81
Corset. Spinal	A. Schaefer	453,328	June 2	330	61	55	1191
Corsets, &c. Clasp for	H. F. Wyatt	454,104	June 16	1385	362	55	1427
Corsets. Lever-fastening for	A. M. Ayles	460,386	Sept. 29	2895	723	56	1652
Cosmetic. Remedial	W. Paquette	453,847	June 9	1032	55	55	1352
Cosmetic. Remedial	P. Rion	450,038	Apr. 7	577	55	55	112
Cot	L. W. Trent	444,411	Jan. 6	674	55	54	133
Cot	C. W. Trenholme	461,691	Oct. 20	1866	462	57	371
Cot. Folding	G. H. Wilson	459,983	Sept. 22	2271	570	56	1325
Cot or bedstead. Folding metal	C. T. Segar	464,524	Dec. 8	804	196	57	1297
Cotton. Absorbent	E. F. Tilley	452,737	May 19	2088	525	55	986
Cotton. Apparatus for handling and cleaning seed	L. T. Burnham	459,608	Sept. 15	1682	420	56	1407
	W. E. Elam, R. S. Thomas, and S. W. Hardwick	453,551	June 2	583	149	55	1258
Cotton-baling apparatus	H. Rembert	446,888	Feb. 24	2256	{ 561 562 }	{ 54 55 }	980
Cotton bedder and planter	T. Parris	452,908	May 26	2360	597	55	1046
Cotton by atmospheric suction. Device for handling and cleaning seed	T. C. Eberhardt	452,552	May 19	1799	{ 452 453 }	{ 55 55 }	929
Cotton-chopper	G. W. Allen	460,546	Oct. 6	1	1	57	3
Cotton-chopper	N. J. Baggett	452,093	May 12	1043	{ 264 265 }	{ 55 55 }	778
Cotton-chopper	J. A. Bangh	457,040	Aug. 4	160	39	56	564
Cotton-chopper	J. J. Barron	445,461	Jan. 27	2343	609	54	483
Cotton-chopper	A. Carr	451,663	May 5	338	83	55	643
Cotton-chopper	J. W. Cobb	447,749	Mar. 3	758	189	54	1262
Cotton-chopper	N. T. Henderson	462,705	Nov. 10	769	200	57	708
Cotton-chopper	S. S. Kent, W. G. Boler, and W. W. Kent	447,046	Feb. 24	2528	627	54	1029
Cotton-chopper	J. M. Lankford	463,232	Nov. 17	1604	418	57	879
Cotton-chopper	J. L. McCaul	464,179	Dec. 1	257	63	57	1184
Cotton-chopper	J. A. Pierce	462,451	Nov. 3	367	91	57	620
Cotton-chopper	L. M. Poole	461,931	Oct. 27	2272	562	57	458
Cotton-chopper	H. G. Scarborough	450,797	Apr. 21	1782	433	55	363
Cotton-chopper	H. P. Tobin and M. Holman	463,012	Nov. 10	1251	325	57	803
Cotton chopper and cultivator	C. L. Ferriott	453,554	June 2	588	150	55	1259
Cotton chopper and cultivator	L. A. Greene	465,261	Dec. 15	1994	{ 510 511 }	{ 57 57 }	1533
Cotton chopper and cultivator. Combined	I. W. Gregg	452,183	May 12	1300	{ 303 304 }	{ 55 55 }	808
Cotton chopper and cultivator. Combined	C. R. Rains and M. Lanier	465,143	Dec. 15	1814	460	57	1498
Cotton chopper and scraper	A. Whitley	459,324	Sept. 8	1211	296	56	1309
Cotton-chopping machine	J. W. Guyton	452,783	May 26	2166	542	55	1010
Cotton-cleaner	J. P. Cunningham, Sr	463,330	Nov. 17	1767	462	57	909
Cotton cleaner. Seed	T. P. Townley	460,669	Oct. 6	216	55	57	45
Cotton-cleaning. Dust-trunk for	H. W. Church	453,992	June 9	1228	320	55	1391
Cotton-cleaning apparatus. Dust-trunk for	J. C. Potter	451,609	May 5	245	59	55	626

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Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.	
				Spec.	Dr.	Vol.	Page.
Cotton-condensers. Safety-cap for	G. P. Melchior	459,298	Sept. 8	1176	286	56	1302
Cotton-conveyer. Pneumatic.	J. B. Clopton	462,301	Nov. 3	136	33	57	576
Cotton conveying and cleaning apparatus.	W. E. Elam, R. S. Thomas, and S. W. Hardwick.	451,856	May 5	619	153	55	696
Cotton-feeder	S. W. Woodbury	445,916	Feb. 3	653	160	54	640
Cotton-gin	D. A. Sailor	451,279	Apr. 28	2562	631	55	521
Cotton-gin	C. Young	457,690	Aug. 11	1237	317	56	773
Cotton-gin attachment	I. F. Brown	462,890	Nov. 10	1073	278	57	767
Cotton-gin condenser	J. G. Goldthwaite	462,404	Nov. 3	304	75	57	608
Cotton-gin feeder	R. Hathaway	463,052	Nov. 10	1312	340	57	815
Cotton-gin feeder	J. W. Smith	464,483	Dec. 1	729	178	57	1274
Cotton-gin rib	I. T. Washburn	446,724	Feb. 17	1981	494	54	916
Cotton-gin. Roller	J. R. Montagne	462,722	Nov. 10	793	207	57	712
Cotton-gin. Saw	G. Winship and F. Garraux	444,080	Jan. 6	158	39	54	34
Cotton-gins. Belt-tightener for	W. S. Reeder	462,931	Nov. 10	1147	297	57	781
Cotton-gins. Roll-box for	S. M. Fraser and A. J. Stewart	450,229	Apr. 14	877	218	55	175
Cotton handling and cleaning apparatus. Seed.	R. S. Thomas, S. W. Hardwick, and W. E. Elam.	454,146	June 16	1448	379	55	1439
Cotton-handling apparatus	T. C. Eberhardt	460,202	Sept. 29	2611	651	56	1598
Cotton-handling device	J. L. Williams and L. W. Bennett	463,708	Nov. 24	2387	626	57	1037
Cotton. Machine for bolting and cleaning	J. M. Gardner	452,339	Aug. 25	2313	565	56	993
Cotton. Machine for handling and cleaning seed.	R. S. Thomas, S. W. Hardwick, and W. E. Elam.	458,380	Aug. 25	2384	581	56	1006
Cotton-opener, &c.	R. Schaeffbaum	447,365	Mar. 3	143	39	54	1145
Cotton or hay elevator	J. J. Draffin and W. P. Nelson	448,641	Mar. 24	2249	564	54	1571
Cotton-picker	H. P. Dooley	458,751	Sept. 1	305	75	56	1123
Cotton-picker	T. B. Hyde	463,055	Nov. 10	1319	341	57	816
Cotton-picker	O. Kretschmar	445,786	Feb. 3	446	111	54	599
Cotton-picker finger	O. Canuteson	464,852	Dec. 8	1299	325	57	1393
Cotton-picker stem	G. Lisenard	457,743	Aug. 11	1333	346	56	794
Cotton-picker stem	G. Lisenard	457,744	Aug. 11	1336	346	56	794
Cotton-pickers. Lap-smoothing device for	W. H. Morgan	463,633	Nov. 17	2077	546	57	970
Cotton. Pneumatic machine for picking	C. Baldwin	451,589	May 5	221	52	55	621
Cotton-press	C. C. Ingram	439,438	May 19	1615	401	55	896
Cotton-press attachment	J. J. Hiser	443,995	Jan. 6	17	4	54	6
Cotton-pressing machinery	J. A. Bachman	451,846	May 5	603	150	55	694
Cotton-scraper	J. J. Hobbs	445,891	Feb. 3	618	152	54	633
Cotton-scraper	J. R. White	445,827	Feb. 3	527	128	54	614
Cotton scraper and chopper. Combined	C. C. Chappel	450,480	Apr. 14	1268	309	55	248
Cotton-spacer	W. Totty and J. E. Chaffin	462,747	Nov. 10	829	218	57	720
Cotton-speeder gear	J. J. Scholfield	466,263	Dec. 29	3618	926	57	1864
Cotton-stalk crusher	J. Lester	465,139	Dec. 15	1800	458	57	1498
Cotton-stalk puller	L. L. Womack	446,276	Feb. 10	1285	314	54	766
Cotton. Storage of	L. Smith	446,028	Feb. 10	846	204	54	685
Counter for presses or other machines	H. M. Aldrich	452,687	May 19	2004	501	55	970
Counter-shaft	A. D. Pentz	446,138	Feb. 10	1028	253	54	719
Countersink-gage	J. A. Goeb	455,199	June 30	3200	812	55	1787
Counting-machine	C. F. Webster	452,860	May 26	2280	572	55	1032
Counting-register	C. J. Root	450,039	Apr. 7	578	143	55	112
Coupler-gage	D. L. Barnes	450,947	Apr. 21	2008	494	55	406
Coupling:							
See Axle-coupling.	Hose-coupling.						
Basin-coupling.	Hose or pipe coupling.						
Bellows-fold coupling.	Locomotive-coupling.						
ling.	Pipe-coupling.						
Belt-coupling.	Pipe and shaft coupling.						
Car-coupling.	Pipe or hose coupling.						
Car and air-brake coupling.	Pole-coupling.						
Car and pipe coupling.	Radiator-coupling.						
ling.	Railway-rail coupling.						
Collar-coupling.	Rope or cable coupling.						
Electric coupling.	Safety-coupling.						
Electric-conductor coupling.	Screw-coupling.						
Electric-light-shade coupling.	Shaft-coupling.						
Electric-wire coupling.	Sleigh-coupling.						
Fence-rail coupling.	Thill-coupling.						
Flange and collar coupling.	Trace-coupling.						
	Vehicle-coupling.						
	Vehicle-reach coupling.						
	Water-closet coupling.						
	Whiffletree-coupling.						
Coupling	J. Brandner	463,301	Nov. 17	1717	447	57	901
Coupling	I. S. Goldman	461,751	Oct. 20	1960	486	57	329
Coupling	A. Haentze	454,866	June 30	2580	663	55	1667
Coupling	E. H. Taylor	454,922	June 30	2704	691	55	1690
Coupling and cut-out. Combined	J. D. F. Andrews	452,173	May 12	1188	300	55	805
Coupling-shoe	C. W. Dwelle	441,340	Jan. 6	560	144	54	111
Coupling-sleeve	J. G. Hallas	454,648	Nov. 23	2240	575	55	1595
Coupon	I. C. Reed and C. Congdon	462,328	Nov. 3	174	44	57	584
Coupon-cutter	G. W. Chapin	454,850	June 30	2557	658	55	1663
Courts. Device for determining points in laying out rectangular	L. A. Swope	464,205	Dec. 1	313	76	57	1193
Cover for receptacles	H. Alliger	452,264	Aug. 25	2191	535	56	969

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Cover, kettle, and plate handler.....	E. S. Lafayette.....	448,243	Mar. 17	1583	404	54	1437
Cover. Swinging.....	J. Bartlett and J. Naber, Jr.....	451,447	May 5	3	1	55	579
Covers. Counter-balance for hinged.....	W. McCabe.....	461,485	Oct. 20	1539	377	57	310
Cow-catcher.....	J. J. Smith.....	461,286	Oct. 13	1146	292	57	229
Cow-tail holder.....	E. G. Farnham.....	444,428	Jan. 13	702	183	54	147
Cowl. Exhaust.....	R. M. Pancoast.....	445,819	Feb. 3	514	{ 123 124 }	54	612
Cracker-cutting machine.....	W. A. Hull.....	447,113	Feb. 24	2629	652	54	1049
Cradle.....	S. C. Lund and L. J. Lauritsen.....	459,708	Sept. 15	1849	465	56	1439
Cradle.....	J. K. Potter.....	463,707	Nov. 24	2386	625	57	1036
Cradle.....	H. Weber.....	454,191	June 16	1515	397	55	1452
Cradle, chair, &c.....	A. A. Cidileau.....	458,673	Sept. 1	199	46	56	1103
Cradle-motor.....	K. I. Sutton.....	459,555	Sept. 15	1594	400	56	1391
Crane.....	H. Aiken.....	455,650	July 7	570	148	56	1151
Crane.....	J. A. Burns.....	464,705	Dec. 8	1087	269	57	1351
Crane.....	J. A. Burns.....	464,706	Dec. 8	1088	{ 269 270 }	57	1351
Crane.....	T. James.....	453,006	May 26	2527	610	55	1079
Crane.....	J. A. Potter and J. A. Burns.....	461,874	Oct. 27	2168	{ 534 535 }	57	438
Crane and elevator. Combined floating.....	J. E. Walsh.....	451,903	May 5	693	174	55	710
Crane. Counterbalanced jib.....	P. L. and A. A. Weiner.....	446,043	Feb. 10	873	{ 212 213 }	54	690
Crane. Electric.....	W. A. Stadelman.....	460,514	Sept. 29	3098	775	56	1692
Crane for lifting weights.....	J. Gaskell.....	449,529	Mar. 31	3674	523	51	1849
Crane for loading logs.....	C. Christenson.....	457,341	Aug. 11	703	180	56	669
Crane. Hydraulic.....	E. Graves.....	456,360	July 21	1674	441	56	337
Crane. Hydraulic.....	E. Graves.....	462,637	Nov. 3	653	{ 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 }	57	677
Crane. Hydraulic.....	J. Kennedy and H. Aiken. (Reissue).....	11,163	May 5	704	{ 177 178 179 180 }	55	712
Crane. Hydraulic.....	J. Kennedy and H. Aiken. (Reissue).....	11,164	May 5	711	{ 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 }	55	713
Crane. Hydraulic traveling.....	E. Graves.....	456,361	July 21	1677	442	56	337
Crane. Hydraulic traveling.....	E. W. Naylor.....	457,441	Aug. 11	855	221	56	700
Crane. Traveling.....	F. N. Dixon.....	451,269	Apr. 28	2542	{ 627 628 }	55	518
Crane. Traveling.....	F. N. Dixon.....	465,109	Dec. 15	1755	444	57	1488
Crane. Traveling.....	J. H. Greiner.....	447,281	Feb. 24	2938	{ 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 }	54	1109
Crane. Traveling.....	F. W. Wolf.....	444,968	Jan. 20	1606	411	54	329
Crane. Traveling.....	W. Wood. (Reissue).....	11,142	Feb. 3	736	{ 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 }	54	657
Crane. Traveling.....	W. Wood.....	456,186	July 21	1394	{ 369 370 }	56	284
Crane. Traveling.....	W. Wood.....	456,187	July 21	1396	370	56	284
Crane. Traveling.....	W. Wood.....	456,188	July 21	1397	370	56	285
Crane. Apparatus for rotating.....	T. James.....	453,007	May 26	2527	640	55	1079
Crane. Fluid connection for.....	J. A. Burns.....	464,707	Dec. 8	1091	270	57	1352
Crane. Journal-bearing for.....	J. A. Burns.....	465,691	Dec. 22	2698	687	57	1677
Crank-arm.....	J. Benson.....	464,416	Dec. 1	633	156	57	1254
Crank-motion. Variable.....	A. Kitson.....	460,642	Oct. 6	175	44, 45	57	37
Crank-pin.....	G. W. Rogers.....	454,229	June 16	1568	413	55	1464
Crank-pin-turning machine.....	H. Streiber.....	457,960	Aug. 18	1703	445	56	870
Crape. Door.....	F. S. Pinkham.....	466,054	Dec. 29	3302	843	57	1804
Crate.....	G. T. Benjamin, J. E. Tinker, and W. C. Rosenberger.....	452,827	May 26	2230	560	55	1023
Crate.....	E. H. Flory.....	446,165	Feb. 10	1086	267	54	727
Crate.....	J. L. Reeves.....	464,122	Dec. 1	170	42	57	1169
Crate.....	A. A. Sumner.....	459,216	Sept. 8	1057	257	56	1277
Crate.....	G. W. Worden.....	444,657	Jan. 13	1051	273	54	216
Crate. Folding.....	E. H. Bartels.....	449,193	Mar. 31	3110	785	54	1745
Crate. Folding.....	M. C. Burr.....	458,689	Sept. 1	222	52	56	1108
Crate. Folding.....	S. W. Hurlburt.....	456,653	July 28	2163	573	56	439
Crate. Folding.....	J. Spain.....	449,007	Mar. 24	2815	713	54	1680
Crate. Folding poultry.....	H. B. Cornish.....	455,661	July 7	589	{ 154 155 }	56	114
Crate. Folding poultry.....	W. Paschal.....	451,069	Apr. 28	2206	546	55	452
Crate. Fruit.....	C. E. Gates.....	463,111	Nov. 10	1418	{ 366 367 }	57	836
Crate. Fruit.....	L. W. Horn and J. McArthur.....	447,687	Mar. 3	659	163	54	1243
Crate. Knockdown.....	H. M. Bickel.....	444,999	Jan. 20	1652	423	54	339
Crate. Knockdown.....	P. Hauck.....	466,234	Dec. 29	3569	914	57	1855
Crate. Poultry.....	R. G. Thomasson.....	444,561	Jan. 13	919	239	54	190
Crate. Spring-bottom.....	H. W. Hammond.....	447,320	Mar. 3	60	16	54	1129
Crayons, &c. Machine for making.....	J. Quinn, Jr., and L. V. Moulton.....	452,350	May 12	1468	363	55	859
Creamer.....	J. G. Smith.....	447,914	Mar. 10	1059	265	54	1326
Creaming-machine.....	D. M. Weston.....	446,210	Feb. 10	1156	{ 283 284 }	54	740
Creels. Friction attachment for spool.....	W. Slade.....	447,496	Mar. 3	387	94	54	1191
Cremating-closet.....	I. D. Smead.....	449,970	Apr. 7	483	{ 120 121 }	55	94
Cremation-closet.....	I. D. Smead.....	449,971	Apr. 7	486	121	55	94
Cremation-furnace.....	S. W. Dixon.....	461,327	Oct. 13	1208	{ 307 308 }	57	242
Cremator-closet.....	P. J. Kraetsch.....	456,236	July 21	1490	394	56	300
Crematory-closet. Ventilated.....	W. L. Fuller.....	446,340	Feb. 10	1383	338	54	786
Crib.....	F. C. Hannahs.....	461,574	Oct. 20	1682	412	57	337
Crimping and curling iron.....	M. Campbell.....	466,057	Dec. 29	3306	844	57	1805
Crimping-board.....	G. E. Shaw.....	447,119	Feb. 24	2635	654	54	1051
Crimping-machine.....	W. E. Frost.....	458,951	Sept. 1	624	154	56	1187
Crochet-machine feeding mechanism.....	J. M. Merrow.....	448,722	Mar. 24	2383	597	54	1577
Crocheting-machine.....	G. D. Munsing.....	448,664	Mar. 24	2283	{ 572 573 }	54	1578

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Page.	Vol.	Page.
Cross-tie. Metallic	J. M. Price	462,062	Oct. 27	2455	608	57	492
Crow-feet. Machine for making.	J. H. and J. H. Bickley, Jr.	453,959	June 9	1179	308	55	1381
Croze	K. W. Jacobs	459,457	Sept. 15	1440	362	56	1362
Crozing and chamfering machine	J. Plenkharp	454,765	June 23	2405	{ 617 618 }	55	1629
Crucible-burner	T. M. Painter	459,790	Sept. 22	1974	497	56	1469
Crucible-furnace	J. F. Barker	444,658	Jan. 13	1052	273	54	216
Crucible-kiln	G. Nimmo	444,153	Jan. 6	285	68, 69	54	58
Crupper	L. S. Ellis	458,674	Sept. 1	200	47	56	1104
Crupper	F. H. Kiekenapp	451,561	May 5	177	43	55	613
Crupper	K. A. Leomis	457,651	Aug. 11	1176	302	56	761
Crupper-fastening	G. H. Davis	446,380	Feb. 10	1436	353	54	798
Crusher:							
See Cotton-stalk crusher. Rock or ore crusher.							
Ore-crusher. Stone-crusher.							
Crushing and grinding mill	T. C. Cadwgan	453,620	June 9	705	182	55	1289
Crushing and grinding mill	T. C. Cadwgan	457,146	Aug. 4	327	84	56	596
Crushing and grinding mill	G. C. Janney	465,667	Dec. 22	2663	679	57	1670
Crushing and grinding mill	J. F. Winchell	461,789	Oct. 20	2029	501	57	402
Crusher and pulverizer	R. McCully	458,638	Sept. 1	136	{ 30 31 32 }	56	1092
Crushing and pulverizing machine	W. H. Howland	450,488	Apr. 14	1281	{ 313 314 315 }	55	251
Crushing and pulverizing machine.	R. McCully	463,538	Nov. 17	2087	{ 550 551 }	57	972
Crushing and pulverizing machine.	R. McCully	464,463	Dec. 1	696	171	57	1267
Crushing-machine	R. McCully	463,162	Nov. 17	1502	{ 389 390 }	57	859
Crushing-machine	R. McCully	463,539	Nov. 17	2091	{ 551 552 }	57	972
Crushing-machine	W. Schranz	461,050	Oct. 13	783	200	57	158
Crushing-machines. Elevator and screen for	W. H. Baxter	446,319	Feb. 10	1350	329	54	779
Crushing-mill	A. Olson	445,071	Jan. 20	1760	454	54	360
Crushing-mill	J. H. Yeaton	455,677	July 7	609	160	56	118
Crutch	K. Olsen	457,519	Aug. 11	981	250	56	723
Crutch	L. A. Wildback	444,189	Jan. 6	347	85	54	70
Cryolite. Making artificial	E. Richters	447,063	Feb. 24	2554		54	1035
Cue-chalker	A. A. Otto	464,288	Dec. 1	451	108	57	1221
Cue-tip fastener	H. M. Crider	448,474	Mar. 17	1978	496	54	1512
Cue-tip shaper and chalk-holder	J. W. Klapperich	451,938	May 12	766	{ 193 194 }	55	731
Cuff-attacher	J. V. Pilcher	465,496	Dec. 22	2377	608	57	1616
Cuff fastener	L. A. Negralval	445,512	Jan. 27	2420	631	54	497
Cuff-holder	M. G. Cook	452,870	May 26	2225	576	55	1034
Cuff-holder	E. K. Heaps	463,369	Nov. 17	1835	480	57	923
Cuff-holder	C. E. Hennies	455,208	June 30	3214	816	55	1790
Cuff-holder	A. Hunter	452,137	May 12	1121	285	55	793
Cuff-holder	E. Hutchinson	452,790	May 26	2176	545	55	1012
Cuff-holder	C. E. Mead	453,199	June 2	29	9	55	1154
Cuff-holder	A. A. Mehafeey	448,532	Mar. 17	2058	515	54	1528
Cuff-holder	H. D. Mugerditchyan	447,493	Mar. 3	383	93	54	1190
Cuff-holder	H. D. Mugerditchyan	457,210	Aug. 4	437	114	56	614
Cuff-holder	G. H. Scharf	458,795	Sept. 1	369	89	56	1136
Cuff-holder	H. E. Snow	466,311	Dec. 29	3697	943	57	1879
Cuff-holder and distender	B. R. Bacon	447,533	Mar. 3	440	108	54	1200
Cuff-retainer	F. W. Bender and F. L. Scheidemann	444,271	Jan. 6	463	118	54	92
Cuff. Shirt	W. E. Simonds	446,367	Feb. 10	1416	348	54	793
Cuffs and collar blanks. Machine for infolding the edges of	J. K. P. Pine	456,906	July 28	2529	{ 650 651 }	56	516
Culinary boiler	F. McKinley	461,120	Oct. 13	875	225	57	176
Culinary fork	S. A. Merrill	448,155	Mar. 10	1426	364	54	1399
Culinary or other vessels. Handle attachment for	M. Roberts	449,607	Apr. 7	252	63	55	50
Culinary purposes. Time-alarm for	W. E. Groves	446,226	Feb. 10	1180	269	54	745
Cultivation. Apparatus for steam	R. H. Fowler, T. Benstead, and J. Ogley.	463,502	Nov. 17	2028	532	57	961
Cultivator	S. L. Allen	463,610	Nov. 24	2225	587	57	1007
Cultivator	S. L. Allen	466,282	Dec. 29	3651	{ 833 834 }	57	1870
Cultivator	D. E. Barton	451,252	Apr. 28	2516	620	55	542
Cultivator	C. E. Bement	462,294	Nov. 3	119	30	57	574
Cultivator	W. P. Bettendorf	466,215	Dec. 29	3545	907	57	1850
Cultivator	W. P. Bettendorf	466,216	Dec. 29	3546	907	57	1851
Cultivator	W. P. Bettendorf	466,217	Dec. 29	3548	908	57	1851
Cultivator	N. F. Bloominger	444,986	Jan. 20	1633	419	54	335
Cultivator	J. M. Brewer	465,237	Dec. 15	1951	498	57	1526
Cultivator	W. M. Brinkerhoff	464,262	Dec. 1	413	98	57	1212
Cultivator	W. M. Brinkerhoff, A. W. Stevens, and L. D. Swart.	447,443	Mar. 3	282	71, 72	54	1171
Cultivator	A. W. Butt	445,846	Feb. 3	552	{ 134 135 }	54	619
Cultivator	A. W. Butt	445,847	Feb. 3	554	135	54	620
Cultivator	G. M. Clark	465,126	Dec. 15	1788	451	57	1494
Cultivator	W. S. Cook	449,522	Mar. 31	3666	921	54	1848
Cultivator	J. Craig	464,011	Dec. 1	14	4, 5	57	1139
Cultivator	C. S. Curtis and C. Boggs	465,165	Dec. 15	1850	469	57	1505
Cultivator	W. C. De Graffenried	454,036	June 16	1290	336	55	1409
Cultivator	J. W. Downs	448,323	Mar. 17	1737	439	54	1468
Cultivator	E. W. Freiburghouse	455,709	July 7	668	176	56	129
Cultivator	H. A. Freling	453,632	June 9	719	{ 185 186 }	55	1292
Cultivator	R. S. Gabbey	444,346	Jan. 6	568	145	54	113
Cultivator	H. Gale	453,469	June 2	464	119	55	1256

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Cultivator	S. Gasser	464,561	Dec. 8	850	210	57	1306
Cultivator	J. Gedeohn	460,240	Sept. 29	2662	663	56	1608
Cultivator	E. George	461,077	Oct. 13	823	211	57	165
Cultivator	W. S. Goemmel	453,183	June 2	9	23	55	1151
Cultivator	W. J. Gohn	461,674	Oct. 20	1841	455	57	366
Cultivator	P. M. Hardy and T. R. Boyd	460,471	Sept. 29	3016	755	56	1675
Cultivator	F. B. Harvey	457,198	Aug. 4	411	107	56	610
Cultivator	C. Hiestand	463,229	Nov. 17	1601	417	57	878
Cultivator	T. B. Hussey	455,212	June 30	3220	817	55	1791
Cultivator	J. W. Kraus	449,546	Mar. 31	3702	930	54	1854
Cultivator	J. W. Kraus	449,642	Mar. 31	3874	969	54	1886
Cultivator	M. L. Kissell	453,010	May 26	2531	641	55	1080
Cultivator	B. B. Lewis	458,586	Sept. 1	59	13	56	1077
Cultivator	A. Lindgren	455,755	July 14	750	197	56	153
Cultivator	G. Moore and C. H. Pope	461,503	Oct. 20	1565	384	57	315
Cultivator	H. S. Moore	456,050	July 14	1193	314	56	235
Cultivator	F. T. Neitsch	444,366	Jan. 6	595	153	54	118
Cultivator	F. R. Packham	446,563	Feb. 17	1738	424	54	870
Cultivator	S. H. Perry	454,602	June 23	2163	559	55	1582
Cultivator	J. Porteous	461,172	Oct. 13	960	247	57	191
Cultivator	J. R. G. Reeves	446,538	Feb. 17	1702	417	54	862
Cultivator	C. S. Ruef	444,186	Jan. 6	340	83	54	69
Cultivator	M. Sattley	451,527	May 5	224	31	55	603
Cultivator	I. J. Scott	462,742	Nov. 10	824	214	57	719
Cultivator	C. Sims	461,596	Oct. 20	1714	419	57	343
Cultivator	J. N. Stanley	456,167	July 21	1364	362	56	278
Cultivator	J. C. Thomas	464,124	Dec. 1	172	42	57	1170
Cultivator	A. H. Tripp	444,800	Jan. 13	1280	331	54	258
Cultivator	C. B. Tripp and G. W. Venters	459,823	Sept. 22	2031	509	56	1481
Cultivator	J. L. Wagener	466,203	Dec. 29	3525	901	57	1846
Cultivator	C. C. Warren	465,902	Dec. 29	3031	776	57	1752
Cultivator	J. V. Webster	455,914	July 14	991	258	56	198
Cultivator	P. F. Wells	455,372	July 7	111	31	56	25
Cultivator	N. Whitehall	459,451	Sept. 15	1432	359	56	1360
Cultivator	B. P. Whitney	447,992	Mar. 10	1193	302	54	1351
Cultivator and fertilizer-distributor. Combined	L. B. Buzby	451,805	May 5	548	135	55	683
Cultivator and guide attachment	W. Morin	453,725	June 9	861	223	55	1319
Cultivator and harrow	E. J. Travis	453,027	May 26	2559	647	55	1085
Cultivator and plow. Combined	H. P. Moore	460,983	Oct. 13	691	179	57	142
Cultivator and scraper	N. Hunneycutt and T. E. Moseley	461,115	Oct. 13	869	224	57	175
Cultivator and seed-drill. Combined	C. C. Hunter	447,188	Feb. 24	2778	688	54	1076
Cultivator and seed-planter	L. Wolf	459,822	May 26	2225	558	55	1021
Cultivator and thinner. Cotton	L. Studer	450,303	Apr. 14	984	244	55	195
Cultivator and weed-cutter	E. S. Gerow	463,352	Nov. 17	1806	472	57	916
Cultivator attachment	C. A. Armstrong	463,933	Nov. 24	2738	710	57	1103
Cultivator attachment	E. S. Bailey and J. M. Coons	445,871	Feb. 3	589	144	54	627
Cultivator attachment	D. E. Barton	451,253	Apr. 28	2517	620	55	512
Cultivator attachment	D. E. Barton	451,256	Apr. 28	2520	621	55	513
Cultivator attachment	E. Children	463,941	Nov. 24	2748	713	57	1105
Cultivator attachment	M. J. Reed	444,134	Jan. 6	257	62	54	53
Cultivator attachment	A. D. Smith	460,540	Sept. 29	3145	766	56	1702
Cultivator. Balanced	J. M. W. Long	446,388	Feb. 10	1451	356	54	801
Cultivator-beam	D. E. Barton	451,254	Apr. 28	2518	621	55	513
Cultivator-clamp, &c	D. E. Barton	451,255	Apr. 28	2519	621	55	513
Cultivator. Cotton	T. W. Brooks	459,990	Sept. 22	2251	572	56	1527
Cultivator. Cotton	J. L. Guinn	445,173	Jan. 27	1926	497	54	400
Cultivator. Cotton	H. C. Hughes	449,418	Mar. 31	3508	833	54	1818
Cultivator. Disk	F. A. Head and S. A. Kerns	456,469	July 21	1690	500	56	377
Cultivator. Disk	R. K. Swift	460,515	Sept. 29	3099	775	56	1692
Cultivator. Draft-equalizing	D. E. Barton	465,421	Dec. 15	2255	579	57	1582
Cultivator. Garden	J. A. Everitt	460,633	Oct. 6	161	40	57	34
Cultivator. Garden	C. S. Norcross	450,523	Apr. 14	1330	327	55	262
Cultivator. Hand	A. J. Osborne	460,157	Sept. 29	2544	634	56	1584
Cultivator, harrow, and seeder	C. C. Hair	450,150	Apr. 14	743	188	55	151
Cultivator. Listed-corn	J. W. Epperson	449,527	Mar. 31	3672	923	54	1849
Cultivator. Listed-corn	W. F. Hickman	462,642	Nov. 3	663	167	57	679
Cultivator. Listed-corn	J. Winemiller	465,988	Dec. 29	3175	814	57	1779
Cultivator. Lister	A. S. McClure and T. Boggs	450,915	Apr. 21	1968	482	55	398
Cultivator. Lister	W. Y. Smith	456,005	July 14	1130	296	56	223
Cultivator or harrow tooth	F. X. Krabach	461,837	Oct. 27	2113	520	57	427
Cultivator or harrow tooth	C. D. Wislogel	462,675	Nov. 3	714	184	57	688
Cultivator, planter, and fertilizer-distributor. Combined	E. C. Worrell	451,099	Apr. 28	2245	556	55	461
Cultivator-point	A. H. Gaberel	458,338	Aug. 25	2313	565	56	993
Cultivator-shoe	D. E. Barton	465,422	Dec. 15	2256	579	57	1583
Cultivator shovel and knife	S. J. Fish	447,305	Mar. 3	31	8	54	1124
Cultivator. Sulky	M. Burke	458,217	Aug. 25	2096	542	56	952
Cultivator. Sulky	J. L. Butler	456,551	July 28	1996	527	56	405
Cultivator. Sulky	J. E. Taylor	461,290	Oct. 13	1153	294	57	231
Cultivator-teeth. Clamp for the attachment of	D. E. Barton	456,393	July 21	1734	458	56	347
Cultivator-teeth. Die for forming bars for	H. M. Brinkman	459,357	Sept. 8	1272	314	56	1321
Cultivator. Tongueless wheel	A. Lindgren	455,754	July 14	749	197	56	153
Cultivator-tooth	S. L. Allen	463,612	Nov. 24	2228	528	57	1008
Cultivator-tooth	W. H. Davis and R. P. Howard	465,358	Dec. 15	2168	555	57	1565
Cultivator-tooth	J. W. Kraus	460,828	Oct. 6	456	115	57	91
Cultivator. Walking	S. E. and J. Morral	445,186	Jan. 27	1949	503	54	404
Cultivator. Walking	A. W. Stevens and L. D. Swart	456,318	July 21	1606	424	56	324

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Cultivator. Walking and riding.	B. F. Coulomb.	462,533	Nov. 3	492	121	57	645
Cultivator. Wheel.	D. Z. Hunting.	461,184	Oct. 13	978	251	57	194
Cultivator. Wheel.	A. Lindgren and S. W. Luitwieler.	460,021	Sept. 22	2323	582	56	1536
Cultivator. Wheel.	J. McMahon.	451,443	Apr. 28	2811	695	55	569
Cultivator. Wheel.	J. A. Pimlott and A. J. Downing.	455,648	July 7	628	166	56	122
Cultivators. Replanting attachment for	G. W. Cunningham and J. M. Ferry.	448,131	Mar. 10	1391	355	54	1392
Cultivators. Seeding attachment for disk	R. B. Snell.	460,366	Sept. 29	2870	716	56	1647
Culvert. Roofed	W. D. Harris.	445,994	Feb. 10	800	194	54	677
Cup:							
See Bait and drinking	Folding cup.						
cup.	Grease-cup.						
Collapsible cup.	Oil-cup.						
Dope-cup.	Shaving-cup.						
Drinking-cup.	Umbrella drip-cup.						
Drip-cup.	Umbrella-tip cup.						
Cup-holder and the like	D. R. Cotner.	460,465	Sept. 29	3006	753	56	1673
Cup-shaped articles. Method of and machine for making	W. R. Comings.	448,748	Mar. 24	2425	606 } 607 }	54	1605
Cupola-furnace.	J. Walker.	465,006	Dec. 15	1574	400	57	1455
Curb and gutter. Clamp for molding a combined	S. P. McKelvey.	458,915	Set. 1	574	139	56	1175
Curb and gutter. Combined.	J. King.	459,754	Sept. 22	1922	484	56	1459
Curb-bit.	C. H. Butlin.	466,222	Dec. 29	3554	909	57	1852
Curbing. Metallic.	I. L. Landis.	456,995	Aug. 4	104	26	56	553
Curbing. Metallic.	I. L. Landis.	457,886	Aug. 18	1576	409 } 410 }	56	846
Curd grinder, worker, and salter.	D. J. Davis.	466,048	Dec. 29	3293	840	57	1802
Curling-iron.	M. Campbell.	463,328	Nov. 17	1762	461	57	908
Curling-iron.	R. Nicol, Jr.	459,146	Sept. 8	943	227	56	1256
Curling-iron.	G. L. Thompson.	460,709	Oct. 6	290	701	57	57
Curling-iron heater.	W. V. Bauman.	460,055	Sept. 22	2380	595	56	1546
Curling-irons. Frame for supporting	G. L. Thompson.	463,999	Nov. 24	2845	737	57	1123
Current-collecting device	R. M. Hunter.	454,437	June 16	1892	493	55	1525
Current induction. Controlling alternating.	E. Thomson.	465,078	Dec. 15	1695	431	57	1477
Current motor. Alternating.	C. O. C. Billberg and P. A. N. Winand.	444,934	Jan. 20	1550	397 } 398 }	54	318
Current motor. Alternating.	M. von Dolivo-Dobrowolsky.	456,804	July 28	2416	637	56	485
Current motor. Alternating.	W. Stanley, Jr., and J. F. Kelly.	455,773	July 14	772	203	56	157
Current motor. Alternating or pulsating	L. Gutmann.	463,314	Nov. 17	1739	454 } 455 }	57	905
Current-regulators. Operating mechanism for	S. H. Short.	456,253	July 21	1507	400	56	305
Current tester. Electric.	W. H. Ebert.	453,323	June 2	223	58	55	1190
Current-wheel	W. Stephens.	447,915	Mar. 10	1061	265	54	1326
Currents and water-falls. Appliance for utilizing river-	F. S. Martin.	447,887	Mar. 10	1008	254	54	1316
Currents of different phase. Transmission of alternating	M. von Dolivo-Dobrowolsky.	455,683	July 7	617	162 } 163 }	56	120
Currier's knife.	H. B. Bryant.	444,724	Jan. 13	1157	298	54	236
Curry-comb.	L. Bailey.	458,801	Sept. 1	380	91	56	1138
Curry-comb.	L. M. Devore.	445,165	Jan. 27	1915	494	54	398
Curry-comb.	J. Du Shane.	450,562	Apr. 14	1375	339	55	271
Curry-comb.	J. Du Shane.	455,182	June 30	3176	804	55	1782
Curry-comb.	E. C. Goodrich.	460,091	Sept. 22	2438	609	56	1557
Curry-comb.	E. C. Hempel.	454,269	June 16	1629	428	55	1475
Curry-comb.	F. E. Kohler.	464,773	Dec. 8	1189	295	57	1370
Curry-comb.	S. Rogers.	444,185	Jan. 6	340	83	54	69
Curry-comb.	H. Schulz.	455,548	July 7	402	105	56	78
Curry-comb.	C. S. Starr.	455,930	July 14	1016	265	56	203
Curry-comb and cleaner	C. J. Carlson.	461,543	Oct. 20	1636	400	57	328
Curtain and shade stretcher.	A. Shampay.	463,692	Nov. 24	2360	618	57	1031
Curtain-drier.	E. Gilmore.	461,608	Oct. 20	1728	424	57	345
Curtain-fixture.	F. H. Bassett.	448,625	Mar. 24	2227	559	54	1567
Curtain-fixture.	W. Bishman.	455,982	July 14	1094	288	56	216
Curtain-fixture.	R. Butler.	464,645	Dec. 8	977	243	57	1332
Curtain-fixture.	A. S. Glidden.	446,675	Feb. 17	1903	472	54	902
Curtain-fixture.	L. Kahn.	457,119	Aug. 4	284	74	56	587
Curtain-fixture.	P. McCarthy.	454,491	June 23	1971	513	55	1548
Curtain-fixture.	J. J. Newbaker.	452,679	May 19	1993	499	55	967
Curtain-fixture.	P. Pfeil.	452,282	May 12	1347	336	55	837
Curtain-fixture.	H. S. Wainwright.	460,937	Oct. 6	621	159	57	122
Curtain-fixture.	L. Yancey.	465,403	Dec. 15	2232	573	57	1578
Curtain. Flexible	R. B. Fowler.	462,094	Oct. 27	2502	622	57	501
Curtain guide. Window.	A. M. Haswell.	449,042	Mar. 24	2865	728	54	1691
Curtain-hanger	D. Davis.	458,019	Aug. 18	1794	468	56	887
Curtain-hanging device.	G. W. McGill.	453,126	May 26	2724	686	55	1118
Curtain-holder	T. Tribe.	444,863	Jan. 20	1427	371	54	295
Curtain holder. Window.	L. A. H. Grenelle.	464,499	Dec. 8	757	185	57	1288
Curtain holder. Window.	L. N. West.	448,565	Mar. 17	2109	528	54	1538
Curtain-holding device.	H. L. Hall.	453,409	June 2	368	95	55	1216
Curtain or shade guide.	H. T. Edson.	451,665	May 5	340	83	55	643
Curtain-pole	G. E. Strauss.	444,230	Jan. 6	407	101	54	80
Curtain-pole bracket.	S. E. Bauder.	460,939	Oct. 13	626	161	57	129
Curtain-pole bracket or support.	J. W. Leslie.	445,628	Feb. 3	172	45	54	545
Curtain-pole ring	J. A. Rings.	460,793	Oct. 6	410	100	57	81
Curtain-pole socket	H. Taylor.	461,377	Oct. 13	1305	330	57	260
Curtain-pole support.	H. Taylor.	461,376	Oct. 13	1304	329	57	260
Curtain-pole supporter	E. Martel.	462,569	Nov. 3	553	135	57	657
Curtain-pole trimming	H. F. Patchen.	459,412	Sept. 15	1373	344	56	1349
Curtain-poles and the like. Socket for	W. Durst.	455,435	July 7	220	56	56	45
Curtain-poles. Pressure-socket for	J. G. Brothwell.	452,965	May 26	2462	622	55	1067
Curtain-pull	J. O. Remington.	447,414	Mar. 3	234	60	54	1161
Curtain-ring	H. A. Lloyd.	452,886	May 26	2327	587	55	1040
Curtain-roller	T. V. Maxedon.	456,200	July 21	1416	376	56	288
Curtain-stretcher	G. S. Dippy.	463,303	Nov. 17	1720	450	57	901
Curtain stretching and drying machine	H. V. Holmes.	451,607	May 5	244	58	55	626

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Curtain-support.....	H. Farley.....	453,631	June 9	718	185	55	1292
Curtain. Window.....	J. W. Mendenhall.....	454,876	June 30	2599	667	55	1671
Curtains. Display-rack for.....	J. Strassner.....	460,043	Sept. 22	2362	591	56	1543
Curtains or other drapery. Suspending device for.....	G. W. McGill.....	452,974	May 26	2477	627	55	1070
Curve-scriber.....	W. Gardner.....	450,455	Apr. 14	1228	300	55	241
Cushion: See Billiard-cushion.							
Cuspidor.....	C. L. Beers.....	448,111	Mar. 10	1359	348	54	1385
Cuspidor.....	C. Golden.....	462,861	Nov. 10	1021	264	57	757
Cuspidor and toy figure. Combined.....	H. S. Brewington.....	464,273	Dec. 1	430	102	57	1216
Cuspidors. Device for cleaning.....	J. McPherson.....	444,710	Jan. 13	1134	292	54	232
Cuspidors. Swing attachment for.....	S. Horseman.....	456,620	July 28	2111	558	56	428
Cut fabric and hemming the same.....	J. J. Henderson.....	462,641	Nov. 3	663	167	57	679
Cut-off.....	T. F. Cray.....	460,953	Oct. 13	643	166	57	133
Cut-off and filter. Combined rain-water.....	W. W. Bays.....	452,538	May 19	1776	{ 447 } 448	55	925
Cut-off and reversing valve gear. Automatic.....	S. T. Bruce.....	462,758	Nov. 10	851	223	57	724
Cut-off. Automatic.....	E. C. Waldurff.....	464,112	Dec. 1	157	39	57	1167
Cut-off. Automatic overflow.....	A. W. Knox.....	462,844	Nov. 10	996	258	57	753
Cut-off box.....	D. B. Weightman.....	458,768	Sept. 1	329	80	56	1128
Cut-off. Conductor.....	E. G. West.....	445,516	Jan. 27	2426	633	54	498
Cut-off for conductors.....	J. D. Shepard.....	451,779	May 5	515	127	55	676
Cut-off. Rain-water.....	M. N. Coe.....	450,909	Apr. 21	1958	480	55	396
Cut-off. Water.....	J. E. Evans and W. J. Bear.....	464,323	Dec. 1	503	120	57	1230
Cut-off. Water-pipe.....	G. W. Howell.....	452,644	May 19	1942	487	55	957
Cut-out.....	C. R. Arnold.....	464,548	Dec. 8	833	205	57	1303
Cut-out.....	S. Bergmann.....	445,362	Jan. 27	2205	572	54	456
Cut-out.....	F. Bryan.....	459,560	Sept. 15	1607	403	56	1392
Cut-out.....	S. D. Field.....	446,966	Feb. 24	2385	594	54	1003
Cut-out.....	H. W. Fisher.....	465,983	Dec. 29	3166	812	57	1778
Cut-out.....	J. S. Gibbs.....	450,101	Apr. 7	668	169	55	131
Cut-out.....	W. F. Irish.....	458,396	Aug. 25	2413	587	56	1011
Cut-out.....	H. Lemp.....	463,213	Nov. 17	1579	411	57	874
Cut-out.....	A. T. Tregurtha.....	449,767	Apr. 7	190	47, 48	55	39
Cut-out.....	C. S. Van Nuis.....	449,301	Mar. 31	3279	831	54	1775
Cut-out. Aerial.....	J. R. Fletcher.....	454,904	June 30	2657	680	55	1681
Cut-out and lightning-arrester. Combined.....	A. T. Aldrich.....	444,892	Jan. 20	1469	380	54	304
Cut-out. Automatic.....	J. P. Tirrell.....	446,902	Feb. 24	2291	{ 570 } 571	54	986
Cut-out. Automatic safety.....	W. B. Cleveland.....	460,701	Oct. 6	278	67, 68	57	55
Cut-out for overhead wires. Safety.....	N. Froloff and W. Subbotin.....	459,721	Sept. 15	1869	470	56	1443
Cut-out. Fusible.....	C. S. Van Nuis and J. H. Vail.....	458,603	Sept. 1	84	19	56	1082
Cut-out. Mechanical.....	H. W. Burnet.....	462,836	Nov. 10	983	255	57	750
Cut-out. Multiple-fuse.....	A. W. Jones.....	450,159	Apr. 14	756	192	55	154
Cut-out. Multiple-fuse.....	G. K. Wheeler.....	463,764	Nov. 24	2466	644	57	1051
Cut-out. Thermal.....	A. Barrett.....	445,217	Jan. 27	1996	515	54	414
Cut-out. Thermal.....	L. B. Favor.....	461,570	Oct. 20	1676	410	57	336
Cut-out. Thermal.....	J. O. Phillips.....	460,538	Sept. 29	3141	785	56	1701
Cut-out. Thermal.....	G. H. Whittingham.....	452,152	May 12	1147	290	55	797
Cutlery. Table.....	J. Sheppman.....	462,068	Oct. 27	2464	610	57	494
Cutlery. Forging-blank for hollow-handled.....	W. H. Chapin.....	445,659	Feb. 3	230	62	54	557
Cutter: See Axle-cutter. Index-cutter. Band-cutter. Kraut-cutter. Bark-cutter. Lead-cutter. Bolt-cutter. Meat-cutter. Bolt and rivet cutter. Meat or vegetable cutter. Bolt and rod cutter. Metal-cutter. Bolt or rod cutter. Mica-cutter. Border-cutter. Milling-cutter. Boring-cutter. Molding-cutter. Bread-cutter. Nail-cutter. Brick and tile cutter. Oat-cutter. Butter-cutter. Onion-top cutter. Button-hole cutter. Paper-cutter. Cane-cutter. Pipe or rod cutter. Cheese-cutter. Plug and socket cutter. Cigar-cutter. Rod-cutter. Cigar-tip cutter. Rotary cutter. Cigarette-cutter. Saw and ensilage cutter. Circular cutter. Stalk cutter. Corn-cutter. Straw-cutter. Corn or cotton stalk cutter. Toast-cutter. Cornstalk-cutter. Tobacco-cutter. Coupon-cutter. Turf-cutter. Cylindrical cutter. Twine-cutter. Dado-cutter. Vegetable-cutter. Feed-cutter. Veneer-cutter. Flue-hole cutter. Veterinary incisor-cutter. Fruit and vegetable cutter. Washer-cutter. Gear-cutter. Watch-maker's jewel-setting cutter. Glass-tube cutter. Weed-cutter. Ice-cutter. Weed and grass cutter. Ice-cutter. Wire-cutter.							
Cutter-bar.....	J. L. V. Brack.....	465,317	Dec. 15	2085	532	57	1550
Cutter-bar.....	J. L. V. Brack and C. P. Coy.....	459,740	Sept. 22	1904	480	56	1456
Cutter-bar.....	G. B. Clark.....	449,521	Mar. 31	3665	921	54	1847
Cutter-bar.....	P. A. Erickson.....	463,227	Nov. 17	1600	417	57	878
Cutter-bar.....	F. F. G. Jaehnke.....	458,629	Sept. 1	127	28	56	1091
Cutter-bar.....	B. F. McElwee.....	453,263	June 2	32	10	55	1155
Cutter-bar.....	C. C. Shultz.....	457,379	Aug. 11	767	197	56	683
Cutter-bar adjuster.....	G. Lake.....	457,051	Aug. 4	173	43	56	567

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Cutter-bar attachment	J. W. Baker and J. Lacey	458,151	Aug. 25	1992	516	56	933
Cutter-head	G. Heymeier and H. Webmann	458,030	Aug. 18	1813	472	56	891
Cutter-head	C. R. Penfield	448,254	Mar. 17	1608	410	54	1442
Cutter-head	C. Seymour	446,476	Feb. 17	1604	394	54	844
Cutter-head	S. J. Shimer	463,555	Nov. 17	2122	560	57	978
Cutter-head. Rotary	C. L. Goehring	445,335	Jan. 27	2169	562	54	449
Cutter-roll	J. West	461,600	Oct. 20	1720	421	57	344
Cutting and draining board	H. T. Wheeler	454,552	June 23	2063	534	55	1565
Cutting and polishing tools. Feeding-up device for	A. Snow, Jr.	452,293	May 12	1363	340	55	840
Cutting and punching machines. Spacing device for	F. Rittenhouse	460,801	Oct. 6	418	103	57	83
Cutting and stamping machine	F. D. Safford	453,589	June 2	1642	165	55	1269
Cutting apparatus	S. M. Carter	452,212	May 12	1241	313	55	816
Cutting apparatus	N. Clouse	457,075	Aug. 4	228	58	56	577
Cutting apparatus	F. Hampton and G. L. Haner	464,603	Dec. 8	912	224	57	1319
Cutting apparatus	C. D. Hillabold	458,231	Aug. 25	2127	551	56	958
Cutting-blades. Making	A. Kraatz	461,345	Oct. 13	1237	315	57	248
Cutting device. Electrically-controlled	L. S. White	460,695	Oct. 6	269	65	57	53
Cutting, grinding, and polishing material	C. M. Lindsey	466,277	Dec. 29	3641	57	57	1868
Cutting holes and washers. Tool for	J. Addison	453,767	June 9	928	241	55	1331
Cutting-instruments. Preparing leather for sharpening	W. H. Lewis	457,355	Aug. 11	727	56	674	
Cutting-machine	J. Garvelek	461,159	Oct. 13	933	242	57	186
Cutting-machines. Carrier attachment for	E. W. Ross	444,459	Jan. 13	748	{ 195 196 }	54	156
Cutting-shears	R. Hayden	452,917	May 26	2373	601	55	1048
Cutting-tool	R. Gabel	448,017	Mar. 10	1234	314	54	1359
Cuttle-fish holder	O. Vahle	445,415	Jan. 27	2281	592	54	471
Cycle	A. H. Overman	463,390	Nov. 17	1877	489	57	930
Cycle luggage-carrier	T. G. Allen, Jr., W. L. Sachtleben, and J. P. Walters	444,642	Jan. 13	1032	268	54	212
Cycle-saddle	W. A. Hance	454,431	June 16	1884	492	55	1523
Cyclists. Home-trainer for	L. F. Guignard	463,862	Nov. 24	2623	683	57	1082
Cyclometer	E. R. De Wolfe	447,540	Mar. 3	450	110	54	1202
Cyclometers. Ball-bearing for	E. R. De Wolfe	458,710	Sept. 1	250	59	56	1113
Cylinder engine. Revolving	C. G. Ruths	456,315	July 21	1600	423	56	322
Cylinder-lock	F. B. Case and J. Schade	464,853	Dec. 8	1300	326	57	1393
Cylinder-lock	J. B. Sargent	445,085	Jan. 20	1777	458	54	363
Cylinder-lock	H. B. Sargent and A. A. Page	446,192	Feb. 10	1124	275	54	734
Cylinder-lock	J. H. Shaw	446,176	Feb. 10	1102	270	54	731
Cylinder-lock	E. C. Smith	457,873	Aug. 18	1550	403	56	841
Cylinder-lock	W. E. Sparks	464,765	Dec. 8	1177	293	57	1368
Cylinder-lock	J. H. Woolaston	452,588	May 19	1851	465	55	939
Cylinder lock and key	L. Mount, Jr.	464,579	Dec. 8	876	215	57	1312
Cylinder-lubricator	O. W. Griffiths	451,928	May 12	752	190	55	728
Cylindrical boiler	W. S. Shippe	453,946	June 9	1163	304	55	1378
Cylindrical cutter	W. Evans	451,118	Apr. 28	2274	563	55	466
Dado-cutter	W. R. Fox	447,716	Mar. 3	702	176	54	1251
Daily reminder	C. E. Blodgett	451,910	May 12	726	182	55	723
Dam. Floating	L. Debarle	464,350	Dec. 1	543	132	57	1237
Dampening and copying appliance	J. H. Anderson	458,513	Aug. 25	2597	632	56	1046
Damper	C. S. Hood	465,563	Dec. 22	2501	638	57	1639
Damper	E. Johnson	463,333	Nov. 17	1771	463	57	910
Damper	W. J. Kayser	454,967	June 30	2782	709	55	1705
Damper	J. A. Palmer	463,406	Nov. 17	1900	496	57	935
Damper	G. W. Warner	452,739	May 19	2095	526	55	987
Damper	G. W. Warner	452,740	May 19	2096	527	55	987
Damper. Automatic	F. O. Hörenz	445,113	Jan. 20	1823	{ 471 472 }	54	371
Damper. Automatic draft-regulating	C. D. Howard	460,579	Oct. 6	57	14	57	13
Damper for stoves, &c. Check	W. Phipps	445,078	Jan. 20	1770	456	54	361
Damper. Furnace	W., Jr., and J. Lanyon	444,958	Jan. 20	1597	{ 407 408 }	54	326
Damper. Grate	M. J. Robbins	451,774	May 5	508	125	55	674
Damper-operating device. Stove	C. F. Walther	446,700	Feb. 17	1943	484	54	909
Damper-regulator	J. E. Watts	462,961	Nov. 10	1184	307	57	789
Damper. Stove-pipe	W. H. Berger	464,846	Dec. 8	1289	323	57	1391
Dampers or similar valves. Mechanism for operating	J. V. Stout	459,091	Sept. 8	850	206	56	1237
Damping apparatus	B. Brower	455,505	July 7	322	83	56	64
Damping apparatus	W. N. Cornell	455,741	July 14	730	192	56	149
Dancing figure. Coin-controlled	J. N. Blauvelt	445,535	Feb. 3	9	2	54	512
Dark-room. Portable	J. H. Markley	449,487	Mar. 31	3618	911	54	1838
Dash-board	P. M. Barnes	458,213	Aug. 25	2088	540	56	951
Dash-board	G. B. Slate	457,421	Aug. 11	828	214	56	694
Dash-board	E. Walter	454,783	June 23	2434	625	55	1634
Dash-pot	E. C. Flagg	463,382	Nov. 17	1855	485	57	926
Dater. Ticket	O. Konigsloew, P. Sanford, and E. L. Harvey	461,344	Oct. 13	1236	315	57	248
Davit. Boat	G. F. Lawley	446,357	Feb. 10	1404	344	54	791
Dead-eye	W. H. Carr	455,375	June 30	3316	839	55	1808
Dead-centers. Mechanism for overcoming	L. Hauck	456,031	July 14	1171	307	56	261
Débris. Means for collecting and removing floating	F. Correll	452,595	May 19	1862	469	55	942
Decorating glass and porcelain	A. Westwood and P. L. Mallon	447,991	Mar. 10	1192	54	1351	
Decorative relief material. Manufacture of	L. Euricht	449,873	Apr. 7	344	55	68	
Decorative relief material. Manufacture of	L. Enricht	449,874	Apr. 7	345	55	69	
Decorticating fibrous plants, &c. Machine for	J. H. Lorimer	456,730	July 28	2289	606	56	462
Decorticating machine. Hemp or flax	A. E. Ellinwood	461,260	Oct. 13	1110	{ 282 283 }	57	221
Decorticating vegetable fibers. Machine for	C. J. Rothermel	460,286	Sept. 29	2742	683	56	1624
Decorticating vegetable fibers. Machine for	D. D. Sponce	461,306	Dec. 1	482	115	57	1226
Decortication of wheat and apparatus therefor	H. J. Sanderson and A. H. Reed	458,501	Aug. 25	2573	627	56	1041
Deflector	M. C. Pierce	452,081	May 12	1025	259	55	775
Dehorner	T. A. Crowell	454,563	June 23	2082	537	55	1569
Dehorner	W. H. Newton	458,537	Aug. 25	2628	640	56	1053
Dehorning chute. Cattle	N. J. Thomas	459,052	Sept. 8	796	192	56	1228

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Dehorning implement.....	H. W. Leavitt.....	458,853	Sept. 1	473	114	56	1156
Dehorning implement.....	T. W. Sprague.....	453,675	June 9	782	201	55	1304
Dehydrater.....	K. M. Mitchell.....	453,125	May 26	2722	686	55	1117
Delivering articles in exchange for coin. Automatic machine for	S. S. Allin.....	449,024	Mar. 24	2835	719 720 721 722	54	1684
Dental anodyne.....	J. W. Hartigan.....	445,298	Jan. 27	2108	61	54	436
Dental anodyne.....	G. I. Keener.....	457,201	Aug. 4	423	56	612	
Dental apparatus. Clamp-electrode for electrical.....	T. S. Wilson.....	450,690	Apr. 21	1624	390	55	333
Dental articulator.....	C. R. Sabin.....	457,937	Aug. 18	1669	437	56	863
Dental bridge-work.....	E. B. Call.....	445,309	Jan. 27	2131	550	54	441
Dental chair.....	G. W. Archer.....	463,348	Nov. 17	1797	470 471	57	915
Dental chair.....	A. Brüstle.....	447,487	Mar. 3	370	61	54	1188
Dental chair.....	F. E. Case.....	455,168	June 30	3143	798 799	55	1775
Dental chair.....	D. Stuck.....	457,059	Aug. 4	192	47, 48	56	570
Dental chair.....	D. Stuck.....	457,060	Aug. 4	199	49, 50	56	572
Dental chair.....	D. Stuck.....	465,952	Dec. 29	3108	795 796 797	57	1766
Dental chair.....	D. Stuck.....	465,953	Dec. 29	3111	796 797	57	1767
Dental-cotton-pellet machine.....	R. N. Roberts.....	451,701	May 5	394	96	55	654
Dental disk-carrier.....	M. L. Rowe.....	444,856	Jan. 20	1416	367	54	233
Dental drill.....	C. K. Bryant.....	453,254	June 2	116	32	55	1170
Dental engine.....	A. W. Browne.....	460,687	Oct. 6	252	62	57	51
Dental engine.....	J. T. Calvert.....	463,855	Nov. 24	2606	677	57	1078
Dental engine.....	J. S. Campbell.....	461,146	Oct. 13	911	236	57	182
Dental engine.....	J. W. Gibson.....	449,848	Apr. 7	314	81	55	62
Dental engine.....	H. D. Justi.....	451,246	Apr. 28	2507	618	55	510
Dental engine.....	A. C. Miller and G. F. Wells.....	462,267	Nov. 3	74	18	57	566
Dental engine.....	G. W. Nütz.....	451,277	Apr. 28	2561	630 631	55	521
Dental engine.....	G. W. Nütz.....	454,659	June 23	2254	579	55	1598
Dental engine.....	A. A. Wilcox.....	459,428	Sept. 15	1400	349	56	1354
Dental engine.....	A. A. Wilcox.....	459,429	Sept. 15	1401	350	56	1354
Dental engine.....	W. W. Williamson.....	454,242	June 16	1585	417	55	1467
Dental-engine attachment.....	E. D. Eddy.....	462,896	Nov. 10	1082	281	57	769
Dental-engine driving-wheel.....	J. S. Campbell.....	445,879	Feb. 3	602	148	54	630
Dental motor. Electric.....	H. H. Blades.....	447,291	Mar. 3	11	4	54	1120
Dental engine. Electrical.....	F. E. Eggers.....	449,847	Apr. 7	311	81	55	62
Dental-engine hand-piece.....	O. Booth.....	462,530	Nov. 3	486	120	57	644
Dental-engine hand-piece.....	J. O. Keller.....	462,409	Nov. 3	311	77	57	610
Dental-engine hand-piece.....	C. M. Richmond.....	450,682	Apr. 21	1611	387	55	331
Dental-engine head.....	A. J. Harris.....	460,795	Oct. 6	412	101	57	81
Dental engines. Mandrel for.....	C. J. M. Schlycker.....	456,208	July 21	1426	378	56	290
Dental mallet.....	M. L. Bosworth.....	465,337	Dec. 15	2124	514	57	1557
Dental mallet.....	V. R. David.....	453,366	June 2	288	76	55	1201
Dental mallet.....	W. H. Dibble.....	452,665	May 19	1971	494 495	55	963
Dental mallet.....	H. C. Hinchman.....	462,133	Oct. 27	2570	639	57	514
Dental matrix.....	C. A. Meister.....	452,231	May 12	1269	320	55	823
Dental nerve-broach.....	J. W. Ivory.....	444,383	Jan. 6	625	162	54	123
Dental or surgical engines. Hand-piece for.....	W. G. A. Bonwill.....	449,401	Mar. 31	3473	875	54	1810
Dental plate.....	R. J. Wenker.....	444,622	Jan. 13	1001	261	54	207
Dental plates. Forming.....	M. R. Griswold.....	465,076	Dec. 15	1687	430	57	1475
Dental plugger.....	D. E. Coulson.....	456,477	July 21	1869	494	56	373
Dental plugger.....	E. J. George.....	445,717	Feb. 3	332	87	54	578
Dental polishing-tool.....	J. D. Ennes.....	451,371	Apr. 28	2687	666	55	545
Dental purposes. Hand-piece for.....	E. Hay.....	461,754	Oct. 20	1965	487 488	57	390
Dental rubber. Shaded.....	A. J. Gear.....	448,795	Mar. 24	2496	624	54	1619
Dental-service stand.....	W. E. Varner.....	448,100	Mar. 10	1346	344	54	1382
Dental stove and blow-pipe.....	F. A. Twitchell.....	459,057	Sept. 8	802	194	56	1228
Dental thermal instrument.....	G. Evans.....	445,766	Feb. 3	418	104	54	595
Dental tool for shaping tooth-crowns.....	G. Evans.....	449,408	Mar. 31	3489	878	54	1813
Dental use. Pestle and mortar for.....	F. E. Hansen.....	462,703	Nov. 10	767	200	57	707
Dental vulcanizer.....	T. J. Carrick.....	464,922	Dec. 8	1394	351	57	1410
Dental vulcanizers. Electric heater for.....	J. O'Meara.....	448,743	Mar. 24	2418	605	54	1604
Dental vulcanizing apparatus.....	G. B. Snow.....	465,735	Dec. 22	2751	702	57	1689
Dentistry.....	J. W. Clowes.....	446,769	Feb. 17	2047	510	54	930
Dentists' use. Artificial head for.....	H. C. Magnusson.....	451,061	Apr. 28	2196	543	55	450
Denture. Artificial.....	W. H. Marshall.....	456,626	July 28	2121	561	56	430
Denture. Artificial.....	J. J. Stedman.....	452,653	May 19	1954	490	55	960
Dentures. Apparatus for making.....	R. E. Zellers.....	454,415	June 16	1861	487 488	55	1519
Dentures. Vulcanizing rubber.....	G. B. Snow.....	454,079	June 16	1353	55	1421	
Deodorizing compound.....	F. Lintz.....	450,370	Apr. 14	1107	55	218	
Depilating composition.....	J. Perl.....	450,032	Apr. 7	571	55	110	
Depurator.....	J. W. Haughwout.....	452,131	May 12	1111	283	55	701
Derrick.....	E. Ashworth.....	461,516	Oct. 20	1596	389	57	320
Derrick.....	A. Colby.....	448,321	Mar. 17	1734	438	54	1467
Derrick.....	O. M. Loveridge.....	455,630	July 7	536	140	56	104
Derrick.....	W. E. Lindsey.....	450,695	Apr. 21	1633	392	55	335
Derrick.....	F. Milliken.....	453,087	May 26	2660	671	55	1104
Derrick.....	D. F. Oliver.....	444,367	Jan. 6	597	154	54	118
Derrick.....	C. E. Swift.....	463,009	Nov. 10	1248	324	57	802
Derrick-fork attachment.....	J. S. Scott.....	461,987	Oct. 27	2350	582 583	57	473
Derrick. Portable.....	G. M. Hurd.....	464,876	Dec. 8	1335	334 335	57	1400
Derrick-shed.....	R. Ashworth.....	461,465	Oct. 20	1456	365 366	57	296

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Derrick. Windmill.....	T. O. Perry. (Reissue).....	11,181	July 28	2633	690	56	525
Desiccating apparatus.....	R. Birkholz.....	449,359	Mar. 31	3396	{ 554 555	54	1795
Desiccating apparatus.....	R. Birkholz.....	451,395	Apr. 28	2722	676	55	551
Desk.....	J. J. Collier.....	444,663	Jan. 13	1064	277	54	218
Desk.....	E. F. and F. D. Pooley.....	458,487	Aug. 25	2552	622	56	1037
Desk. Adjustable folding.....	J. H. Fry.....	450,580	Apr. 14	1396	344	55	275
Desk and document-cabinet. Combination.....	C. E. Lucas.....	454,368	June 16	1777	463	55	1502
Desk and easel. Combined.....	J. O. Richmond.....	460,032	Sept. 22	2337	{ 585 586	56	1539
Desk and mirror. Combined.....	J. Lewin.....	465,378	Dec. 15	2197	563	57	1570
Desk and seat support.....	J. F. McElroy.....	452,527	May 19	1763	443	55	922
Desk and toilet-case. Combined.....	M. Posz.....	464,521	Dec. 8	799	195	57	1297
Desk-cabinet.....	G. C. Harding.....	452,671	May 19	1979	496	55	964
Desk-curtain.....	J. N. Roberts.....	447,415	Mar. 3	235	60	54	1161
Desk. School.....	A. F. Old.....	460,324	Sept. 29	2801	698	56	1635
Desk seat. School.....	A. Cary.....	445,946	Feb. 3	701	171	54	650
Desks. Curtain or flexible cylinder for.....	J. P. Recker.....	451,437	Apr. 28	2793	690	55	565
Detachable handle and spring-latch.....	G. B. Epstein.....	458,105	Aug. 18	1919	499	56	913
Detachable handle for vessels.....	J. Kendrick.....	452,121	May 12	1094	278	55	788
Detector: See Pipe-leak detector.							
Detector-bar.....	L. N. Mosier.....	447,694	Mar. 3	670	167	54	1245
Detergent.....	J. Scharr.....	444,135	Jan. 6	258		54	53
Dial. Time-piece.....	M. B. Martin.....	460,752	Oct. 6	351	86	57	69
Dials. Apparatus for enameling.....	F. W. Wetherbee.....	452,150	May 12	1140	289	55	796
Dials. Machine for enameling small.....	T. F. Sheridan.....	448,734	Mar. 24	2400	{ 600 601	54	1600
Diamonds and excessively hard substances. Apparatus for drilling.....	D. D. Palmer.....	463,973	Nov. 24	2796	725	57	1114
Diamonds within bezels. Tool for setting.....	A. Gavi.....	460,239	Sept. 29	2661	663	56	1608
Diaphragm-meter.....	W. J. Gurd.....	445,552	Feb. 3	37	10	54	519
Dice-box.....	J. B. Slinn and C. A. Holland.....	464,915	Dec. 8	1386	350	57	1409
Dice-shaking apparatus.....	P. Drummer.....	455,390	July 7	150	38	56	32
Dice-throwing apparatus.....	M. Vogelgesang.....	456,091	July 14	1244	327	56	245
Die: See Beam-coping die. Interchangeable die. Bolt-making die. Sheet-metal-drawing die. Button-machine die. Sole-cutting die. Forging-die. Spinning-die.							
Die.....	C. H. Langill.....	454,830	June 23	2522	648	55	1649
Die-cutting machine.....	C. L. Redfield.....	454,567	June 23	2088	538	55	1569
Die folding and seaming machine.....	F. A. Walsh.....	445,738	Feb. 3	365	94	54	584
Die milling machine.....	E. Meyers.....	453,018	May 26	2542	643	55	1082
Die-press.....	W. A. Turner.....	451,534	May 5	134	33	55	605
Die-stock.....	J. M. Carpenter.....	458,220	Aug. 25	2106	546	56	955
Die-stock and die.....	J. S. Fletcher.....	446,915	Feb. 24	2311	574	54	989
Dies, taps, &c. Machine for cutting.....	A. W. Cash.....	454,029	June 16	1280	{ 333 334	55	1408
Diffusion apparatus.....	R. M. Sandys.....	459,654	Sept. 15	1768	445	56	1422
Digesting apparatus.....	G. Kaffenberger.....	448,581	Mar. 17	2129	534	54	1542
Digger: See Post-hole digger. Potato-digger.							
Digger.....	W. Gibbs.....	462,043	Oct. 27	2431	602	57	488
Digging-machine.....	A. Johnson.....	458,714	Sept. 1	255	60, 61	56	1114
Dihydroxynaphthalene.....	E. Mentha.....	449,551	Mar. 31	3708		54	1855
Dikes. Apparatus for strengthening.....	A. Q. Withers.....	445,028	Jan. 20	1686	{ 433 434	54	345
Dimethylphenylpyrazolone. Making.....	L. Scholvien.....	460,186	Sept. 29	2583	199	56	1593
Dinner-boiler.....	R. J. Nourse, Jr.....	455,760	July 14	755	199	56	154
Dining-room service apparatus.....	H. W. Clapp.....	448,009	Mar. 10	1218	{ 310 311	54	1356
Dinking-block support.....	R. Bowden.....	461,165	Oct. 13	943	244	57	188
Direct-acting engine.....	F. F. Nickel.....	451,132	Apr. 28	2305	571	55	472
Direct-acting engine.....	F. F. Nickel.....	465,676	Dec. 22	2675	682	57	1672
Direct-acting engine.....	H. G. Williams.....	460,616	Oct. 6	112	29	57	24
Direct-acting engine.....	H. G. Williams.....	460,617	Oct. 6	114	30	57	25
Direct-acting engine.....	C. C. Worthington.....	448,744	Mar. 24	2419	605	54	1604
Dish-cloth handler.....	M. V. Quinn.....	464,778	Dec. 8	1195	297	57	1371
Dish-cover.....	V. P. Tompkins.....	449,144	Mar. 31	3029	766	54	1730
Dish-handler.....	M. V. Quinn.....	464,777	Dec. 8	1194	296	57	1371
Dish-pans or other vessels. Stand for.....	M. C. Powell.....	460,832	Oct. 6	460	116	57	92
Dish-washer.....	F. W. Hoppe.....	460,778	Oct. 6	388	95	57	76
Dish-washer.....	F. S. Miller.....	455,988	July 14	1103	290	56	218
Dish-washer.....	M. J. Parmley.....	449,746	Apr. 7	158	39	55	32
Dish-washer.....	T. J. Trew.....	465,070	Dec. 15	1673	426	57	1473
Dish-washing basket.....	C. A. Haskins.....	457,318	Aug. 4	628	165	56	650
Dish-washing machine.....	E. B. Allen.....	460,420	Sept. 29	2940	735	56	1660
Dish-washing machine.....	W. Butts.....	465,455	Dec. 22	2311	{ 593 594	57	1604
Dish-washing machine.....	C. A. Haskins.....	457,317	Aug. 4	626	{ 164 165	56	649
Dishes. Drain for.....	A. M. Jayne.....	463,056	Nov. 10	1321	342	57	817
Disinfectant-holder.....	E. A. McCartney.....	457,659	Aug. 11	1192	305	56	764
Disinfecting apparatus for closet-cisterns.....	G. Taylor.....	451,344	Apr. 28	2649	656	55	538
Disinfecting paving composition.....	J. Fottrell.....	446,285	Feb. 10	1295		54	768
Disintegrating and separating apparatus.....	J. P. and O. G. Burnham.....	448,844	Mar. 24	2570	645	54	1633
Disintegrating-furnace.....	F. Walker.....	464,642	Dec. 8	972	242	57	1331
Disintegrator.....	G. W. Elliott.....	457,709	Aug. 11	1268	{ 327 328	56	779
Disk for oscillating-disk actions. Form of.....	J. Thomson.....	452,487	May 19	1699	427	55	910
Disk for oscillating-disk actions. Hard-rubber.....	J. Thomson.....	452,488	May 19	1700	428	55	910
Disks and washers. Device for cutting.....	J. L. Sigsbee.....	457,227	Aug. 4	463	122	56	620

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Disks. Mechanism for controlling and transmitting the action of oscillating	J. Thomson	452,489	May 19	1701	428	55	911
Disks. Mechanism for controlling the action of oscillating	J. Thomson	452,485	May 19	1698	427	55	910
Disks. Mechanism for controlling the action of oscillating	J. Thomson	452,486	May 19	1699	427	55	910
Display-box	S. E. Briggs	457,598	Aug. 11	1106	282	56	748
Display-case	F. Herfort	462,130	Oct. 27	2567	638	57	513
Display-case	I. M. Smith	455,770	July 14	768	202	56	157
Display-frame	G. Marty	448,976	Mar. 24	2765	698	54	1670
Display-horse	H. Schweibold	458,598	Sept. 1	77	17	56	1081
Display-rack	L. E. Armstrong	448,811	Mar. 24	2517	630	54	1623
Display-rack	W. R. Flack	453,969	June 9	1193	311	55	1384
Display-rack for carpets, oil-cloths, &c.	L. Paff	449,230	Mar. 31	3159	796	54	1754
Display-rack or case	S. B. Calkins	454,164	June 16	1476	387	55	1445
Display-rod	G. Wilkening	457,977	Aug. 18	1731	454	56	875
Display-stand	E. A. G. Kurth	460,876	Oct. 6	520	133	57	102
Display-stand	F. W. Lowe	452,107	May 12	1070	271	55	784
Displaying-stand for boxes, &c.	W. P. Miller	462,084	Oct. 27	2483	616	57	498
Distance-instrument	S. Davis	456,404	July 21	1748	462 463	56	350
Distilleries, &c. Utilizing the waste of	A. Parks	452,949	May 26	2439		55	1062
Distilling apparatus	T. McGowan	454,061	June 16	1323	345	55	1416
Distilling apparatus	W. P. Swartz	454,778	June 23	2427	623	55	1633
Distilling apparatus. Oil	A. Mason	444,203	Jan. 6	365	91	54	73
Distilling apparatus. Water	R. P. Barnstead	456,922	July 28	2621	687	56	522
Distilling apparatus. Wood	A. E. Badgley	453,606	June 9	675	175 176	55	1283
Distilling hydrochloric acid	E. Solvay	453,986	June 9	1222	317	55	1390
Distilling oil	A. Mason	444,202	Jan. 6	363	90	54	73
Distilling water. Apparatus for	N. Hunting	448,041	Mar. 10	1267	323	54	1365
Distilling wood. Apparatus for	A. Koch	444,704	Jan. 13	1125	291	54	231
Distillation of tar. Apparatus for the	F. Lennard	459,123	Sept. 8	913	219 220	56	1250
Ditching-machine	R. Hunter	451,558	May 5	172	42	55	612
Ditching-machine	W. T. McNeely	453,089	May 26	2662	671 672	55	1105
Ditching-machine	E. M. Reese	459,649	Sept. 15	1761	443	56	1421
Ditching-machine	E. E. Renshaw and T. J. Clanahan	456,521	July 21	1946	512 513	56	388
Ditching-machine	L. H. Turner	458,201	Aug. 25	2067	535	56	947
Ditching-machine	M. Wilson	444,118	Jan. 6	221	53, 54	54	45
Dividers	W. A. James	465,111	Dec. 15	1759	444	57	1489
Diving apparatus and life-saving raft. Combined	J. Speirs	449,354	Mar. 31	3387	853	54	1793
Diving-dress	W. Carey	462,202	Oct. 27	2679	670 671 672 673 674 675	57	535
Diving-dresses. Means for attaching helmets and breast-plates to	A. E. Stove	458,750	Sept. 1	304	74	56	1123
Diving-suit	J. L. Boucher, E. H. Brault, and R. Filtean	463,477	Nov. 17	1998	522 523	57	955
Dobby. Double-lift open-shed	W. W. Uhlinger	453,680	June 9	787	203	55	1305
Dock. Dry	R. G. Packard	460,310	Sept. 29	2779	693	56	1630
Dock-scraper	J. Hackett	463,353	Nov. 17	1809	472	57	917
Document-box	E. L. Andrews and G. A. Jenness	460,768	Oct. 6	371	91	57	73
Doll	A. Pulvermacher	447,034	Feb. 24	2503	622	54	1025
Door	H. N. H. Lugin	460,208	Sept. 29	2619	654	56	1599
Door	S. V. Merriman	460,323	Sept. 29	2800	698	56	1635
Door. Air-tight	G. Kennedy	458,465	Aug. 25	2510	610	56	1029
Door. Automatic water-tight	G. Müller	459,533	Sept. 15	1560	389	56	1384
Door-bolt	T. Lyons	458,180	Aug. 25	2035	527 528	56	941
Door-bolt	A. W. Zimmerman	444,869	Jan. 20	1434	373	54	296
Door-check	W. H. Broadhead	445,462	Jan. 27	2345	609	54	483
Door-check	L. E. Caldwell	446,322	Feb. 10	1357	331	54	781
Door-check	H. L. Dodge	444,338	Jan. 6	557	143	54	111
Door-check	J. Drees	449,618	Mar. 31	3838	961	54	1879
Door-check	W. Gilfillan	462,638	Nov. 3	656	166	57	677
Door-check	F. L. Habliston	445,992	Feb. 10	798	193	54	676
Door-check	J. Keene	454,360	June 16	1765	459	55	1500
Door-check	E. B. La Follette	453,930	June 9	1143	299	55	1374
Door-check	S. and W. F. Mason	465,185	Dec. 15	1879	476	57	1511
Door-check	J. H. Minix	446,760	Feb. 17	2038	507	54	928
Door-check	G. W. Monilton	447,839	Mar. 10	932	234	54	1301
Door-check	A. A. Page	456,707	July 28	2249	596	56	455
Door-check	A. W. Paine	463,813	Nov. 24	2532	660	57	1064
Door-check	P. A. Painter	464,079	Dec. 1	112	28	57	1158
Door-check	B. T. Raiser	449,916	Apr. 7	409	102	55	80
Door-check	D. Rankin	453,915	June 9	1123	294	55	1329
Door-check	L. Rawdon	445,455	Jan. 27	2337	607	54	482
Door-check	B. Rentz	448,767	Mar. 24	2455	614	54	1611
Door-check	M. C. Richards	444,019	Jan. 6	54	15	54	14
Door-check	H. A. J. Rieckert	450,496	Apr. 14	1293	317	55	254
Door-check	J. Shinn	444,730	Jan. 13	1179	304	54	239
Door-check	G. W. Wright	456,748	July 28	2332	615	56	469
Door-check	G. W. Wright	463,821	Nov. 24	2543	663	57	1067
Door check and closer	E. I. Blount	458,357	Aug. 25	2341	571	56	998
Door check and closer	J. E. Mellor	446,548	Feb. 17	1718	421	54	866
Door check and spring. Combined	N. Scott-Russell	446,561	Feb. 17	1736	427	54	869
Door-check. Pneumatic	R. R. Ball	452,744	May 19	2102	529 530	55	989

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Door-check. Pneumatic	A. Dudden	456,945	Aug. 4	36	8	56	539
Door-check. Pneumatic	O. Seely	448,889	Mar. 24	2637	662 663	54	1645
Door closer, check, and alarm. Pneumatic	J. H. Abel	449,891	Apr. 7	367	93	55	72
Door-closer. Gravitating	J. N. Stong	448,556	Mar. 17	2089	524	54	1534
Door. Flexible	H. N. H. Lugin	461,885	Oct. 27	2186	539	57	441
Door-guard	F. Ludewig	456,998	Aug. 4	107	26	56	554
Door-hanger	C. W. Bullard	450,352	Apr. 14	1070	263	55	211
Door-hanger	L. Coburn	455,698	July 7	505	131	56	97
Door-hanger	L. Coburn and W. J. Sumner	460,501	Sept. 29	3067	770	56	1684
Door-hanger	W. B. Corp.	450,003	Apr. 7	530	132	55	103
Door-hanger	R. D. Dirksen	445,466	Jan. 27	2350	610	54	484
Door-hanger	J. B. Flanders and J. M. Smith	444,725	Jan. 13	1159	298	54	236
Door-hanger	E. A. Haldeman	446,516	Feb. 17	1666	407	54	855
Door-hanger	S. W. and O. G. Hengist	446,816	Feb. 17	2122	527	54	946
Door-hanger	W. Luitink	453,150	May 26	2762	696	55	1124
Door-hanger	E. Y. Moore	445,354	Jan. 27	2197	570	54	455
Door-hanger	E. Y. Moore	452,979	May 26	2484	628	55	1071
Door-hanger	W. J. Sumner	455,695	July 7	639	168 169	56	124
Door-hanger	L. Terry	454,304	June 16	1680	440	55	1485
Door-hanger	C. E. Woods	465,307	Dec. 15	2069	529	57	1547
Door-hanger. Sliding	C. D. Fey	463,700	Nov. 24	2376	621	57	1034
Door-hanger track	A. L. and A. H. Seranton	446,103	Feb. 10	966	238	54	707
Door lock. Sliding	J. B. Brand and P. L. Sheridan	466,113	Dec. 29	3380	863	57	1819
Door lock. Sliding	O. P. Hix	448,651	Mar. 24	2264	568	54	1574
Door-manipulator	F. Schmitz	452,084	May 12	1029	260 261	55	776
Door-mat	J. G. Battelle	447,456	Mar. 3	306	77	54	1175
Door-mat	W. B. Curtis	450,055	July 14	1238	325	56	244
Door-mat. Metal	E. R. Landon	454,439	June 16	1894	494	55	1525
Door-mats. Fastening device for	I. H. Clamer	451,633	May 5	292	71	55	634
Door. Metallic	W. R. Kiuncar	445,262	Jan. 27	2068	533	54	427
Door-opener	D. Hawksworth	449,364	Mar. 31	3414	858	54	1798
Door opener and closer	J. Finck	460,820	Oct. 6	445	112 113	57	89
Door-opener. Electric	L. Bates	448,110	Mar. 10	1358	348	54	1384
Door-opener. Electric	R. J. Ward	457,906	Aug. 18	1607	419	56	851
Door-opening apparatus	V. Mébay	445,614	Feb. 3	150	39, 40	54	540
Door operating and locking mechanism. Jail	C. H. Sparks and C. O. Sobinski	464,947	Dec. 8	1439	362 363	57	1421
Door-operating device	A. Von Brandis and H. Davidson	447,090	Feb. 24	2591	642 643	54	1042
Door-operating device. Electric	R. F. Troy	461,122	Oct. 13	877	226 227 228	57	176
Door or gate. Metal	A. Bataille	448,314	Mar. 17	1722	436	54	1464
Door or window screen attachment	M. A. Baldwin	449,514	Mar. 31	3659	919	54	1846
Door or window screen frame	G. S. Briggs	462,197	Oct. 27	2672	669	57	534
Door-panels. Machine for forming and polishing	R. S. Greenlee and E. G. Ström	454,730	June 23	2357	605	55	1620
Door-plate	A. M. Applegate	465,513	Dec. 22	2412	616	57	1623
Door-plate and letter-slip	O. F. Mitchell	445,068	Jan. 20	1756	453	54	359
Door. Revolving	C. F. Chew	455,656	July 7	579	150 151	56	112
Door-secrner	C. M. Bate	464,415	Dec. 1	632	155	57	1254
Door-secrner	H. W. Chase	463,226	Nov. 17	1599	416	57	878
Door-secrner	N. Cosman	452,903	May 26	2355	595	55	1045
Door-secrner	C. D. Davis	456,267	July 21	1526	405	56	309
Door-secrner	J. L. Frazier	463,361	Nov. 17	1821	476	57	920
Door-secrner	P. Hise	445,273	Jan. 27	2084	537	54	430
Door-secrner	A. A. Long	461,705	Oct. 20	1896	469	57	376
Door-secrner	W. B. Morris	452,947	May 26	2436	614	55	1062
Door-spring	R. Adams	455,649	July 7	569	147 148	56	110
Door-spring	W. H. C. E. and A. F. Giwits	462,699	Nov. 10	764	199	57	706
Door-spring	C. W. Harvey and C. J. Root	450,426	Apr. 14	1278	312	55	250
Door-spring	J. A. Priaux	459,306	Sept. 8	1186	288	56	1304
Door-spring	W. C. Smith	454,078	June 16	1352	353	55	1421
Door-spring	C. W. F. Thode	452,418	May 19	1580	392	55	890
Door-spring	A. D. Tyler, Jr.	445,101	Jan. 20	1806	466	54	368
Door-spring and check	W. Gilfillan	457,347	Aug. 11	709	182	56	670
Door spring and check. Combined	J. Bardsley	464,951	Dec. 15	1455	366 367	57	1433
Door-stop	C. T. Williamson	465,707	Dec. 22	2714	692 693	57	1681
Door track and hanger	C. O. Parsons	456,841	July 28	2480	651 652	56	496
Door-track. Sliding	O. P. Hix	448,235	Mar. 17	1571	401	54	1435
Doors. Counterbalancing device for	J. J. Graves	463,150	Nov. 17	1482	385	57	855
Doors. Machine for manufacturing panel	A. McKay	464,581	Dec. 8	879	216	57	1312
Doors. Pneumatic apparatus for operating	C. A. Tucker	446,195	Feb. 10	1127	276 277	54	735
Doors. Trolley-support for	L. Coburn	447,505	Mar. 3	396	96, 97	54	1192
Doorways. Electrical drop-bar for	B. Lyons	461,355	Oct. 13	1255	319	57	251
Dope-cup	E. McCoy	460,215	Sept. 29	2628	656	56	1602
Double-acting engine	C. A. Tower	444,259	Jan. 6	444	112	54	87
Double-action press	R. C. Manville	460,322	Sept. 29	2799	697	56	1634
Double-contact switch	T. H. Lovell	456,493	July 21	1896	501	56	378
Double scotch-yoke engine	C. H. Soregant	444,139	Jan. 6	267	64	54	55
Doubling, twisting, and winding machines. Automatic stopping mechanism for	J. Boyd	451,194	Apr. 28	2425	599	55	494
Dough-board	E. B. Isbell	445,019	Jan. 20	1676	431	54	343
Dough-mixer	J. Repetti	460,992	Oct. 13	702	181	57	143
Dough-raiser	A. H. Hollender	464,872	Dec. 8	1330	333	57	1398

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Dovetailing-machine.....	C. E. Parks.....	463,814	Nov. 24	2532	{ 660 661	{ 57	1065
Dowel driver and setter.....	G. W. Fernald.....	452,519	May 19	1747	{ 439 440	{ 55	920
Dowel-pin.....	M. J. Andrus.....	456,391	July 21	1732	458	56	347
Doweling-machine.....	J. B. Shengle.....	446,954	Feb. 24	2361	{ 587 588	{ 54	998
Draft apparatus. Artificial.....	W. C. Munroe.....	462,214	Oct. 27	2701	680	57	539
Draft attachment for hames.....	A. A. Boyd.....	463,029	Nov. 10	1279	331	57	808
Draft attachment for hames.....	J. N. Schwalen.....	458,983	Sept. 1	680	166	56	1198
Draft attachment for sleighs.....	K. M. Alvord.....	457,692	Aug. 11	1240	318	56	773
Draft attachment for vehicles. Spring.....	H. Barber.....	451,968	May 12	809	206	55	739
Draft attachment. Spring.....	H. Barber.....	447,289	Mar. 3	7	3	54	1120
Draft-bail.....	Z. T. Harnish.....	418,030	Mar. 10	1249	318	54	1362
Draft. Device for creating.....	C. H. Scharar.....	456,435	July 21	1808	478	56	361
Draft-equalizer.....	C. Anderson.....	465,310	Dec. 15	2075	530	57	1548
Draft-equalizer.....	J. E. Carlson.....	444,877	Jan. 20	1446	376	54	299
Draft-equalizer.....	A. Crannell.....	464,012	Dec. 1	16	5	57	1139
Draft-equalizer.....	D. B. Croft.....	448,129	Mar. 10	1390	354	54	1391
Draft-equalizer.....	W. Davey and J. W. Chaney.....	455,312	July 7	23	6	56	7
Draft-equalizer.....	S. R. Fizell and G. L. Peck.....	462,308	Nov. 3	148	37	57	578
Draft-equalizer.....	J. W. Gamble.....	445,638	Feb. 3	194	51	54	550
Draft-equalizer.....	S. Graham.....	448,483	Mar. 17	1992	499	54	1515
Draft-equalizer.....	H. H. and C. H. Harnden.....	462,406	Nov. 3	307	76	57	609
Draft-equalizer.....	A. W. E., and W. N. Hatfield.....	454,734	June 23	2363	607	55	1621
Draft-equalizer.....	H. H. Muller.....	461,248	Oct. 13	1095	279	57	213
Draft-equalizer.....	A. T. Pettitt.....	460,487	Sept. 29	3040	762	56	1680
Draft-equalizer.....	H. E. Pridmore.....	463,776	Nov. 24	2479	647	57	1054
Draft-equalizer.....	J. J. Prater.....	462,734	Nov. 10	812	212	57	717
Draft-equalizer.....	W. Z. Runkle.....	454,069	June 16	1339	350	55	1419
Draft-equalizer.....	J. G. Stowe.....	455,861	July 14	912	239	56	184
Draft-equalizer.....	E. H. Tank.....	458,026	Sept. 8	756	183	56	1320
Draft-equalizer.....	T. Thompson.....	448,095	Mar. 10	1339	342	54	1380
Draft-equalizer.....	S. H. Tinsman.....	454,892	June 30	2635	676	55	1677
Draft-equalizer.....	R. Wickham.....	463,772	Nov. 24	2475	648	57	1053
Draft or air forcing device.....	G. W. Lord.....	449,486	Mar. 31	3617	910	54	1838
Draft-regulating and fire-checking device.....	G. L. Shorey.....	460,995	Oct. 13	705	182	57	144
Draft-regulator.....	J. M. Adolphus.....	456,528	July 21	1956	515	56	390
Draft-regulator.....	A. Frommhold and F. Voigtmann.....	459,330	Sept. 8	1226	{ 300 301	{ 56	1312
Draft-regulator and spark-arrester.....	C. A. Houston.....	450,072	Apr. 7	692	157	55	121
Draft-regulator and spark-arrester.....	T. Lyman.....	461,585	Oct. 20	1698	415	57	340
Drafting and designing apparatus.....	H. B. Williams.....	461,625	Oct. 20	1766	{ 435 436	{ 57	352
Drafting-instrument.....	C. C. Hare.....	465,264	Dec. 15	1998	512	57	1534
Draftsman's curve.....	H. B. Williams.....	447,593	Mar. 3	527	129	54	1216
Drain-pipe.....	H. E. Ogden.....	455,926	July 14	1010	264	56	202
Drain-pipe.....	G. Richardson.....	461,891	Oct. 27	2196	542	57	443
Drain-pipe for buildings.....	J. L. Crittenden.....	452,023	May 12	899	230	55	756
Draining and aerating land and apparatus therefor. System of.....	W. Reading.....	463,871	Nov. 24	2639	688	57	1084
Dramatic effects. Apparatus for producing illusory.....	J. W. Knell (now N. Burgess).....	455,288	June 30	3355	847	55	1816
Dramatic stages. Railway-train effect for.....	E. E. Vance.....	458,081	Aug. 18	1879	490	56	905
Drapery-clamp.....	L. D. Murphy.....	453,845	June 9	1030	269	55	1352
Draw-bar and spring.....	F. E. Canda.....	460,426	Sept. 29	2947	{ 736 737	{ 56	1662
Draw-bar cushioning device.....	J. A. Hinson.....	461,339	Oct. 13	1230	313	57	246
Draw-bars. Cushioned carrier-iron for.....	A. W. Van Dorston.....	458,924	Sept. 1	589	{ 143 144 145	{ 56	1179
Draw-bars. Device for relieving the tension of.....	C. A. Schroyer and E. B. Thompson.....	449,828	Apr. 7	284	75	55	56
Draw-bars. Making.....	J. Green.....	453,783	June 9	959	240	55	1338
Draw-bars. Manufacture of.....	J. Green.....	418,612	Mar. 17	2192	{ 548 549	{ 54	1553
Draw-bars. Manufacture of.....	J. Green.....	456,699	July 28	2238	592	56	452
Draw-bars. Manufacture of.....	J. Green.....	456,700	July 28	2239	592	56	452
Draw-bars. Manufacture of.....	J. T. Wilson.....	454,101	June 16	1382	{ 361 362	{ 55	1427
Draw-shave.....	W. B. Swan.....	448,464	Mar. 17	1958	492	54	1509
Drawer.....	J. H. Baldwin, Jr.....	466,069	Dec. 29	3320	848	57	1807
Drawer.....	C. L. Cook.....	462,302	Nov. 3	137	34	57	576
Drawer guide and stop. Combined.....	H. E. Spaunhorst.....	461,375	Oct. 13	1303	329	57	259
Drawer-guide equalizer.....	G. H. Stroh.....	453,521	June 2	537	138	55	1249
Drawer-pull.....	J. Preston.....	461,711	Oct. 20	1904	471	57	378
Drawer-stop.....	S. H. Levy.....	449,482	Mar. 31	3613	909	54	1837
Drawers.....	R. E. Hill.....	454,736	June 23	2365	607	55	1621
Drawers.....	W. H. Paul.....	457,130	Aug. 4	297	78	56	590
Drawers.....	M. O. West.....	453,874	June 9	1069	279	55	1359
Drawing-board.....	G. T. Smallwood and R. M. Smith.....	449,006	Mar. 24	2813	712	54	1680
Drawing-board. Meridian.....	J. B. McElroy.....	449,049	Mar. 24	2876	730	54	1692
Drawing-frame. Screw-gill.....	R. Ackroyd.....	461,660	Oct. 20	1820	450	57	362
Drawing in perspective. Machine for.....	G. A. Wright.....	453,332	June 2	236	63, 64	55	1193
Drawing-instruments. Magnetized head for.....	R. S. Carr.....	456,553	July 24	2000	528	56	406
Drawing-instruments. Magnetized head for.....	R. S. Carr. (Reissue).....	11,189	Sept. 15	1884	474	56	1445
Drawing-knife.....	J. S. Cantelo.....	448,633	Mar. 24	2237	{ 561 562	{ 54	1569
Drawing-knife.....	J. S. Cantelo.....	454,848	June 30	2554	657	55	1662
Drawing-machines. Stop-motion for.....	J. C. Baldwin.....	465,332	Dec. 15	2109	538	57	1555
Drawing or cutting table.....	G. P. Conant.....	450,735	Apr. 21	1680	{ 406 407	{ 55	343
Drawing or stamping press.....	F. M. Leavitt.....	451,224	Apr. 28	2461	{ 608 609	{ 55	500
Drawing. Process and apparatus for pneumatic.....	N. A. Chatfield.....	461,667	Oct. 20	1831	453	57	364
Drawing-rollers. Mechanism for raising the weights of.....	R. Lucas.....	460,302	Sept. 29	2766	688	56	1622

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Dredge-lifting device	J. C. and S. Lake	462,439	Nov. 3	354	87	57	618
Dredges in place. Apparatus for holding	J. Kennedy	445,675	Feb. 3	269	70	54	566
Dredges in place. Apparatus for holding	J. Kennedy	447,717	Mar. 3	703	176	54	1251
Dredges. Mechanism for operating boom-dipper	J. Kennedy	453,724	June 9	860	{ 222 223 }	55	1318
Dredger	H. Roessler	445,862	Feb. 3	579	141	54	625
Dredgers. Joint for suction-pipes of	W. P. Humphreys	444,098	Jan. 6	186	46	54	39
Dredging apparatus	R. H. Fraser	457,314	Aug. 4	618	163	56	648
Dredging-machine	F. Murphy	461,193	Oct. 13	994	{ 254 255 }	57	198
Dredging-machine	W. H. Wheeler	445,268	Jan. 27	2075	535	54	429
Dress-fitting apparatus	C. Shane	451,979	May 12	827	{ 211 212 }	55	743
Dress-form	C. S. Gooding	462,700	Nov. 10	765	199	57	706
Dress-form	T. Lebel	456,151	July 21	1341	355	56	274
Dress-form	C. F. Perkins and C. S. Gooding	463,343	Nov. 17	1790	{ 468 469 }	57	913
Dress-form	W. J. and J. A. Ratgeber	455,475	July 7	277	70, 71	56	56
Dress-form	W. Vogler	455,076	June 30	2996	762	55	1748
Dress-form	W. Vogler	463,346	Nov. 17	1795	470	57	914
Dress-shield	I. B. Kleinert	460,825	Oct. 6	452	114	57	90
Dress-skirt gage	C. H. Trott	450,265	Apr. 14	928	230	55	185
Dress-steels. Holder and protector for ends of	M. U. Erler	460,290	Sept. 29	2749	625	56	1625
Dress-supporter	C. F. Shain	461,594	Oct. 20	1712	418	57	342
Dresser and wash-stand. Combined	P. Wicks	459,079	Sept. 8	834	202	56	1234
Dresser and writing-desk. Combined	J. T. Bentley	446,606	Feb. 17	1792	443	54	880
Drier:							
See Boot-drier.	Grain-drier.						
Clothes-drier.	Tobacco-drier.						
Curtain-drier.	Rotary steam-drier.						
Fruit-drier.							
Drier	E. Reynolds	463,920	Nov. 24	2716	706	57	1099
Drier	J. W. Wilmott	464,784	Dec. 8	1209	301	57	1374
Drift	W. E. Smith	462,456	Nov. 3	377	93	57	622
Drill:							
See Boring and reaming drill.	Mining-drill.						
Coal-drill.	Railway-drill.						
Dental drill.	Ratchet-drill.						
Expansion-drill.	Rock-drill.						
Grain-drill.	Seed-drill.						
Hand-drill.	Stone-drill.						
Jeweler's drill.	Twist-drill.						
Drill	J. Eagen	464,497	Dec. 8	753	184	57	1287
Drill	J. Muirhead	456,770	July 28	2369	623	56	476
Drill	W. N. Packer	457,009	Aug. 4	120	29	56	556
Drill	E. Pitts	460,027	Sept. 22	2330	584	56	1537
Drill and wrench. Convertible	J. Waterman	465,626	Dec. 22	2601	{ 660 661 }	57	1658
Drill-bit	R. McKee	451,292	Apr. 28	2581	637	55	525
Drill-bit	J. T. Snyder	444,026	Jan. 6	69	18	54	16
Drill channeling-machine. Gang-	A. Ball	452,354	May 19	1481	367	55	871
Drill channeling-machine. Gang-	A. Ball	452,355	May 19	1483	{ 367 368 }	55	871
Drill for drilling square holes	D. B. Hutton and A. F. G. Daniels	456,258	July 21	1515	{ 401 402 }	56	307
Drill-frame	A. L. Stanford	453,748	June 9	897	233	55	1325
Drill-frame. Self-adjusting	J. Farmer	458,526	Aug. 25	2616	637	56	1050
Drill-gage	W. A. Cropper and J. A. Lonie	458,359	Aug. 25	2344	572	56	999
Drill-jar	F. A. Flanegin	446,622	Feb. 17	1819	450	54	885
Drill-jar	C. F. Rigby	466,259	Dec. 29	3615	925	57	1863
Drill-press	H. H. Fuller	456,540	July 28	2006	530	56	407
Drill-press	W. E. Gang	462,309	Nov. 3	149	38	57	579
Drill-press	A. E. Johnson	458,581	Sept. 1	51	11	56	1075
Drill-press. Column	U. and F. L. Eberhardt	461,951	Oct. 27	2298	{ 569 570 }	57	463
Drill-presses and other machines. Feed connection for	T. L. Smith	465,892	Dec. 29	3017	772	57	1749
Drill-reamer and pipe-puller. Combined	H. Wegner	465,103	Dec. 15	1745	442	57	1486
Drill-sharpening machine	J. Gutberlet	459,931	Sept. 22	2205	554	56	1513
Drill-stock	B. F. Smith	444,256	Jan. 6	441	111	54	86
Drill-teeth	T. Marr and C. W. Smith	447,518	Mar. 3	414	101	54	1195
Drills. Core-lifter for diamond	H. J. Wiesinger	465,305	Dec. 15	2066	528	57	1547
Drills, &c. Covering-wheel for	J. Campbell	447,938	Mar. 10	1096	275	54	1332
Drills. Driving mechanism for hand-	J. W. Knapp	447,614	Mar. 3	557	138	54	1292
Drilling apparatus	M. C. Bullock	462,392	Nov. 3	280	69	57	604
Drilling apparatus	S. W. Douglass and M. C. Bullock	462,428	Nov. 3	338	83	57	615
Drilling, boring, or shaping machine	A. B. Tyler and J. S. E. de Vesian	452,169	May 12	1179	298	55	804
Drilling device. Track	B. F. Smith	446,023	Feb. 10	833	201	54	683
Drilling-machine	W. F. Barnes	461,253	Oct. 13	1100	280	57	220
Drilling-machine	W. H. Baush	457,756	Aug. 11	1357	351	56	799
Drilling-machine	E. E. Claussen	463,659	Nov. 24	2305	{ 605 606 }	57	1032
Drilling-machine	G. Dalin	462,397	Nov. 3	291	73	57	606
Drilling-machine	F. Gildemeister	464,126	Dec. 1	175	43	57	1170
Drilling-machine	A. D. Quint	463,790	Nov. 24	2497	652	57	1057
Drilling-machine	A. Renetzky	460,401	Sept. 29	2915	729	56	1656
Drilling-machine	F. H. Richards	460,692	Oct. 6	262	64	57	52
Drilling-machine	A. P. Sibley and G. O. Ware	462,884	Nov. 10	1057	274	57	764
Drilling-machine	T. Stanley	445,865	Feb. 3	581	142	54	625
Drilling-machine	W. W. Varney	465,619	Dec. 22	2590	622	57	1656
Drilling machine. Hand	E. Moser	444,122	Jan. 6	232	56	54	47
Drilling machine. Iron	C. K. Dawes	447,562	Mar. 3	480	118	54	1207

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. 56	Vol.	Page.
Drilling-machine. Multiple	F. H. Richards	452,053	May 12	962	{ 245 246 247 }	{ 55	767
Drilling-machine. Radial	W. H. Warren	453,780	June 9	953	247	55	1336
Drilling-machines. Hydraulic feed for	M. C. Bullock	462,393	Nov. 3	284	70	57	605
Drilling-machines. Hydraulic feed for	M. C. Bullock	464,182	Dec. 1	261	64, 65	57	1185
Drilling machinery. Core	M. Beal	450,656	Apr. 21	1572	{ 377 378 }	{ 55	323
Drilling or spinning machine	U. and H. E. Eberhardt	447,541	Mar. 3	452	111	54	1202
Drilling to pattern. Machine for	P. Prybil	447,014	Feb. 24	2462	613	54	1017
Drilling-tool	A. D. and H. E. Goodell	463,507	Nov. 17	2034	533	57	962
Drink-dispensing apparatus	W. M. Fowler	460,260	Sept. 29	2689	670	56	1614
Drink-mixer	C. Bew	447,654	Mar. 3	615	152	54	1234
Drinks. Apparatus for dispensing	W. M. Fowler	457,489	Aug. 11	943	{ 239 240 }	{ 56	715
Drinks. Apparatus for dispensing	W. M. Fowler	457,913	Aug. 18	1619	423	56	854
Drinks. Recording apparatus for dispensing	W. M. Fowler	463,304	Nov. 17	1721	450	57	901
Drinks. Shaker for mixing	C. W. Fox	447,069	Feb. 24	2564	636	54	1036
Drinking-cup	A. Harroun	445,057	Jan. 20	1740	448	54	356
Drinking-fountain for fowls	L. B. Lord	455,756	July 14	752	198	56	153
Drinking-vessel. Invalid	J. A. Murray	455,452	July 7	243	62	56	49
Drip-catcher	J. Morningstar	445,569	Feb. 3	74	17	54	526
Drip-cup	G. G. Britton and I. Levi	457,458	Aug. 11	883	228	56	704
Driving and pulling stakes and handling the same.	J. P. Merriam	449,374	Mar. 31	3429	862	54	1801
Machine for							
Driving device	A. E. Brown	453,617	June 9	700	181	55	1289
Driving-gear. Frictional	L. W. Hardy	462,433	Nov. 3	347	85	57	616
Driving mechanism	T. S. Barwis	449,606	Mar. 31	3704	952	54	1871
Dropper.							
See Medicine-dropper.							
Druggist's prescription desk and file	J. B. Crucial	457,399	Aug. 11	795	205	56	688
Druggists' use. Vessel-holder for	J. C. D. Curtiss	447,605	Mar. 3	545	135	54	1220
Drum and damper for the same. Stove	T. Power	458,488	Aug. 25	2554	622	56	1037
Drum. Heating	A. W. Brock	458,013	Aug. 18	1788	467	56	885
Drum. Heating	S. Loew	457,282	Aug. 4	561	148	56	637
Drum. Heating	R. Pugh	459,413	Sept. 15	1374	344	56	1349
Drum. Heating	P. J. Tracy	444,078	Jan. 6	155	39	54	34
Dry-air closet	O. A. Lanphear	464,197	Dec. 1	298	73	57	1190
Dry closet	E. C. Condit	462,373	Nov. 3	251	61, 62	57	598
Dry closet	E. C. Condit	464,814	Dec. 8	1246	312	57	1381
Dry closet	F. P. Smith	459,901	Sept. 22	2164	544	56	1505
Dry closet	I. J. Ordway	449,294	Mar. 31	3267	828	54	1773
Dry closet. Portable	W. H. Powell	445,513	Jan. 27	2422	632	54	497
Dry-kiln for malting	J. Kam	450,237	Apr. 14	893	222	55	178
Dry-kiln furnace	W. Ketcham	460,050	Sept. 22	2373	593	56	1545
Drying apparatus	A. J. Chapel	465,343	Dec. 15	2138	547	57	1559
Drying apparatus	C. H. Koyl	453,562	June 2	598	153	55	1261
Drying apparatus	C. H. Koyl	460,051	Sept. 22	2375	{ 593 594 }	{ 56	1545
Drying apparatus	S. G. Phillips	449,170	Mar. 31	3063	775	54	1737
Drying apparatus	S. G. Phillips	449,231	Mar. 31	3159	797	54	1754
Drying apparatus	V. F. L. Smith	456,742	July 28	2323	613	56	468
Drying apparatus. Vacuum	E. Passburg	447,345	Mar. 3	106	29	54	1138
Drying-board	M. H. Fogarty	448,951	Mar. 24	2730	689	54	1664
Drying, desiccating, and roasting apparatus	C. Salomon	461,550	Oct. 20	1645	402	57	330
Drying-form	R. Schofield and A. F. Robb	465,733	Dec. 22	2748	701	57	1688
Drying-line support	J. and J. A. Pagliughi and F. De Camio	454,377	June 16	1796	{ 468 469 }	{ 55	1506
Drying-machine	P. Dillon	448,181	Mar. 10	1470	{ 374 375 }	{ 54	1407
Drying-machine	J. H. Lorimer	445,226	Jan. 27	2011	518	54	417
Drying-machine. Centrifugal	T. Long	462,495	Nov. 3	428	{ 104 105 }	{ 57	632
Drying-room	G. Weigelin	460,298	Sept. 29	2760	687	56	1627
Drying warp, &c. Apparatus for	J. H. Lorimer	454,913	June 30	2670	684	55	1684
Drying yarns, fabrics, &c. Machine for	B. Stetson	444,860	Jan. 20	1421	{ 369 370 }	{ 54	293
Dumb-bell	E. Le Garde	466,276	Dec. 29	3640	931	57	1868
Dumb-bell	L. B. Somerby	460,270	Sept. 29	2719	677	56	1619
Dumb-waiter	T. Coldwell	450,283	Apr. 14	954	{ 237 238 }	{ 55	190
Dumb-waiter	H. A. Smith	445,824	Feb. 3	523	125	54	613
Dumb-waiter	M. Sullivan	464,835	Dec. 8	1276	320	57	1388
Dumping-trap	C. D. Page	465,878	Dec. 29	2993	764	57	1744
Duplex engine	C. C. Worthington and A. J. Caldwell	444,543	Jan. 13	885	{ 230 231 }	{ 54	184
Duplicating apparatus. Register for	F. A. Heiss	445,761	Feb. 3	405	102	54	593
Duplicating-machine	R. Morgeneier and J. P. Bergeron	456,423	July 21	1785	{ 472 473 474 }	{ 56	357
Dust and cinder protector	Z. J. Goodwin	444,749	Jan. 13	1206	313	54	244
Dust and flour separator	J. H. Shelley	465,543	Dec. 22	2470	{ 629 630 }	{ 57	1633
Dust-arrester	H. W. Petersen	463,689	Nov. 24	2356	617	57	1031
Dust-collector	H. A. and C. A. Baruard	458,965	Sept. 1	647	{ 158 159 }	{ 56	1191
Dust-collector	H. Bittinger	446,053	Feb. 10	893	216	54	693
Dust-collector	E. Bretney	446,507	Feb. 17	1654	404	54	853
Dust-collector	C. W. Cooper	450,327	Apr. 14	1028	253	55	203
Dust-collector	J. J. Gerard	456,810	July 28	2426	640	56	487
Dust-collector	J. K. Hallowell	447,026	Feb. 24	2486	{ 618 619 }	{ 54	1021
Dust-collector	A. Hunter	449,535	Mar. 31	3682	925	54	1851

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Gt.	Vol.	Page.
Dust-collector.....	S. W. Kimble.....	458,147	Aug. 18	1986	514	56	925
Dust-collector.....	O. Kutsche.....	447,333	Mar. 3	82	23	54	1133
Dust-collector.....	O. Kutsche.....	457,493	Aug. 11	951	241	56	717
Dust-collector.....	O. M. Morse.....	450,372	Apr. 14	1110	272	55	218
Dust-collector.....	O. M. Morse.....	452,554	May 19	1803	453	55	930
Dust-collector.....	O. M. Morse.....	460,151	Sept. 29	2536	632	56	1583
Dust-collector.....	O. M. Morse.....	460,152	Sept. 29	2537	633	56	1583
Dust-collector.....	J. Pratsch.....	460,061	Sept. 22	2390	597	56	1548
Dust-collector.....	L. G. Radkey.....	461,801	Oct. 20	2054	506	57	406
Dust-collector.....	L. V. Rathbun.....	449,946	Apr. 7	448	112	55	88
Dust-collector.....	W. D. Smith.....	451,139	Apr. 28	2316	574	55	474
Dust-collector.....	D. A. Ward.....	450,260	Apr. 14	934	231	55	186
Dust-collector.....	R. R. Watters.....	451,542	May 5	146	36	55	607
Dust-collector.....	R. R. Watters.....	451,543	May 5	147	37	55	607
Dust-collector and aspirator. Combined.....	A. N. Wolf.....	453,140	June 30	3097	788	55	1767
Dust from air. Process of and apparatus for separating.....	O. Kutsche.....	452,550	Aug. 25	2645	644	56	1056
Dust-pan.....	C. L. Bellamy.....	446,225	Feb. 10	1179	288	54	745
Dust-pan.....	J. S. Cobb.....	461,700	Oct. 20	1890	467	57	375
Dust-pan.....	C. S. Chubb.....	445,278	Jan. 27	2087	539	54	431
Dust-pan.....	A. M. Downing.....	452,696	May 19	2022	506	55	973
Dust-pan.....	S. C. Harlan.....	450,670	Apr. 21	1597	384	55	328
Dust-pan and broom-holder.....	G. H. Bishop.....	452,358	May 19	1488	{ 368 369 }	55	873
Dust-screen.....	M. J. F., and H. B. Farquhar.....	453,885	June 9	1084	2-3	55	1361
Dust-separator.....	T. Lee.....	458,773	Sept. 1	337	82	56	1130
Dust-separator.....	J. H. Shelley.....	465,544	Dec. 22	2472	630	57	1634
Dusting-engine.....	J. D. Pickles.....	454,525	June 23	2025	{ 524 525 }	55	1557
Dye. Azo.....	H. Kuzel.....	458,283	Aug. 25	2225	.....	56	976
Dye. Azo.....	H. Kuzel.....	458,284	Aug. 25	2227	.....	56	976
Dye. Azo.....	C. A. Martius.....	456,897	July 28	2570	.....	56	512
Dye. Black.....	H. Reisenegger.....	450,037	Apr. 7	577	.....	55	112
Dye. Black.....	J. Schmid.....	449,629	Mar. 31	3854	.....	54	1882
Dye. Black azo.....	M. Ulrich.....	466,202	Dec. 29	3524	.....	57	1846
Dye. Blue.....	A. Herrmann.....	463,898	Nov. 24	2676	.....	57	1091
Dye. Blue.....	M. Hoffmann.....	464,135	Dec. 1	189	.....	57	1173
Dye. Blue.....	J. Mohler and C. A. Mayer.....	444,538	Jan. 13	878	.....	54	183
Dye. Blue.....	J. Mohler and C. A. Mayer.....	451,502	May 5	92	.....	55	597
Dye. Blue azo.....	G. Schultz.....	461,086	Oct. 13	834	.....	57	168
Dye. Blue azo.....	G. Schultz.....	462,824	Nov. 10	959	.....	57	746
Dye. Blue-black azo.....	C. Rudolph.....	462,415	Nov. 3	318	.....	57	611
Dye. Blue-green.....	A. Herrmann.....	453,477	June 2	475	.....	55	1238
Dye. Blue-green azo.....	R. Lauch and C. Krekeler.....	464,775	Dec. 8	1191	.....	57	1370
Dye. Brown.....	C. Rudolph.....	462,414	Nov. 3	317	.....	57	611
Dye. Brown azo.....	C. Rudolph.....	465,116	Dec. 15	1769	.....	57	1490
Dye. Gray.....	A. Cobenzl.....	454,535	June 23	2047	.....	55	1562
Dye. Induline.....	B. Homolka.....	458,281	Aug. 25	2223	.....	56	976
Dye. Orange.....	O. Borgmann.....	454,840	June 30	2542	.....	55	1660
Dye. Orange.....	C. Duisberg.....	447,303	Mar. 3	29	.....	54	1124
Dye. Orange-yellow.....	J. Schmid.....	452,197	May 12	1921	.....	55	812
Dye. Pink.....	F. Bender.....	445,684	Feb. 3	281	.....	54	568
Dye. Red.....	P. Julius.....	447,189	Feb. 24	2782	.....	54	1077
Dye. Violet.....	C. Duisberg.....	447,302	Mar. 3	29	.....	54	1123
Dye. Violet.....	M. Hoffmann.....	464,566	Dec. 8	859	.....	57	1308
Dye. Violet.....	A. Weinberg.....	464,538	Dec. 8	821	.....	57	1301
Dye. Yellow.....	W. Pfitzinger.....	446,009	Feb. 10	817	.....	54	679
Dye-stuff. Brown.....	C. Ris.....	455,952	July 14	1052	.....	56	209
Dye-stuff. Red.....	M. Ceresole.....	456,081	July 14	1234	.....	56	243
Dyes. Making azo.....	C. A. Martius.....	456,627	July 28	2122	.....	56	430
Dyes. Making azo.....	C. A. Martius.....	456,628	July 28	2123	.....	56	430
Dyeing.....	A. Fischesser and J. Pokorny.....	457,468	Aug. 11	943	.....	56	715
Dyeing and bleaching yarn. Machine for.....	S. Mason, Jr., and W. T. Whitehead.....	452,040	May 12	935	240	55	763
Dyeing aniline-black.....	H. Thies.....	452,324	May 12	1423	.....	55	851
Dyeing apparatus.....	C. Corron.....	466,223	Dec. 29	3556	910	57	1853
Dyeing apparatus.....	C. L. Klander.....	453,646	June 9	738	{ 190 191 }	55	1295
Dyeing apparatus for woven fabrics.....	G. Morlot.....	460,024	Sept. 22	2326	583	56	1337
Dyeing apparatus. Mechanical.....	T. A. Clough.....	459,744	Sept. 22	1908	481	56	1456
Dyeing apparatus. Wool.....	S. Mason, Jr.....	465,871	Dec. 29	2971	759	57	1739
Dyeing-machine.....	J. P. Delehnnty.....	446,854	Feb. 24	2192	546	54	969
Dyeing-machine.....	J. Hussong.....	450,020	Apr. 7	550	137	55	107
Dyeing machine. Yarn.....	L. Weldon.....	464,337	Dec. 1	520	{ 126 127 }	57	1233
Dyeing machine. Yarn.....	L. Weldon.....	466,285	Dec. 29	3657	935	57	1871
Dyeing machine. Yarn.....	L. Weldon.....	466,286	Dec. 29	3659	{ 935 936 }	57	1872
Dyeing straw goods, &c. Apparatus for.....	J. A. Young.....	446,050	Feb. 10	883	{ 215 216 }	54	692
Dyeing straw goods, &c. Apparatus for.....	J. A. Young.....	446,051	Feb. 10	890	216	54	692
Dyeing-vat.....	J. K. Proctor and W. B. Keefe.....	446,572	Feb. 17	1749	430	54	872
Dyeing with gallacetophenone.....	R. Bohn.....	452,210	May 12	1239	.....	55	816
Dynamo.....	W. H. Elkins.....	460,372	Sept. 29	2878	718	56	1649
Dynamo. Alternating-current.....	T. H. Hicks.....	465,855	Dec. 29	2949	753	57	1736
Dynamo. Alternating-current.....	T. H. Hicks.....	465,994	Dec. 29	3204	817	57	1783
Dynamo. Alternating-current.....	H. Lemp and L. M. Schmidt.....	444,939	Jan. 20	1559	400	54	320
Dynamo-brush.....	A. S. Cook.....	444,794	Jan. 13	1271	329	54	256
Dynamos. Carbon-brush clamp for.....	S. Morse.....	463,748	Nov. 24	2440	640	57	1047
Dynamo. Constant-current.....	E. P. Clark.....	458,618	Sept. 1	108	24, 25	56	1087
Dynamo. Multipolar.....	A. L. Riker.....	455,517	July 7	342	88	56	68
Dynamo or electric motor.....	W. M. Fink.....	460,125	Sept. 29	2498	622	56	1575
Dynamo or motor. Bipolar.....	A. L. Riker.....	452,718	May 19	2062	519	55	981
Dynamo-regulator.....	B. H. Fisher.....	449,245	Mar. 31	3181	803	54	1758
Dynamo regulator. Constant-current.....	E. P. Clark.....	458,617	Sept. 1	107	24	56	1087

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Dynamos. Belt-controller for	W. A. Foote	454,467	June 23	1938	505	55	1542
Dynamos. Brush-holder for	W. L. Emmet	451,177	Apr. 28	2372	590	55	466
Dynamos driven by compressed air. Regulation of	V. Popp	456,593	July 28	2058	545	56	417
Dynamos. Friction-gearing for	F. L. McGahan	455,488	July 7	297	75	56	60
Dynamos. Governor for	M. S. Conly	459,810	Sept. 22	2004	504	56	1475
Dynamos. Governor for	M. S. Conly	459,811	Sept. 22	2008	504	56	1475
Dynamos. Safety device for	C. G. Young	453,281	June 2	157	45	55	1178
Dynamometer	J. Emerson	452,602	May 19	1875	471	55	944
Dynamometer	C. E. Scribner	452,941	May 26	2426	612	55	1060
Dynamometer. Coin-freed	C. A. Barrett	453,729	June 9	866	225	55	1320
Dynamometer. Coin-freed	C. A. and A. Barrett	452,688	May 19	2006	501	55	970
Dynamometer. Coin-freed	C. A. and A. Barrett	459,062	Sept. 8	812	197	56	1230
Dynamometer or brake. Absorption	G. I. Alden	464,949	Dec. 15	1451	365	57	1433
Dynamometer for locomotives	R. H. Innes	444,611	Jan. 13	987	256	54	204
Ear-piercer	J. F. Hornberger	460,138	Sept. 29	2520	627	56	1580
Ear-ring	J. Bonner and I. Eisler	464,811	Dec. 8	1244	311	57	1381
Ear-ring	J. Bulova	459,476	Sept. 15	1469	369	56	1367
Ear ring	J. Bulova	465,830	Dec. 29	2907	745	57	1729
Ear-wires. Device for making	S. Goldner	447,405	Mar. 3	219	57	54	1159
Earth-boring machine	E. Walton	454,605	June 23	2173	561	55	1583
Earthenware articles. Apparatus for molding	A. Taylor and N. Brooke	452,202	May 12	1227	310	55	813
Easel	A. Graves	461,331	Oct. 13	1215	309	57	243
Easel attachment	G. W. Westerfield, Jr	462,420	Nov. 3	327	80	57	613
Easel-bracket	J. W. Campbell	464,660	Dec. 8	1003	250	57	1336
Easel-clamp	E. H. Friedrichs	455,844	July 14	892	234	56	180
Easels. Picture-rail for	C. W. Smith	464,045	Dec. 1	56	16	57	1147
Eaves-trough	W. and W. Lossie Jr.	459,473	Sept. 15	1463	368	56	1366
Eaves-trough	C. C. Moore	460,982	Oct. 13	689	178	57	141
Eaves-trough	C. C. Smith and S. H. Slaymaker	453,948	June 9	1165	304	55	1379
Eaves-trough	J. Wock	453,989	June 9	1225	318	55	1390
Eaves-trough hanger	J. W. Bell	453,708	June 9	843	218	55	1315
Eaves-trough hanger	M. Bingham	456,877	July 28	2543	667	56	507
Eaves-trough hanger	J. M. Davidson	465,166	Dec. 15	1851	469	57	1506
Eaves-trough hanger	W. J. Plecker	462,586	Nov. 3	578	141	57	662
Eaves-trough hanger	J. Wock	453,990	June 9	1226	318	55	1390
Eaves-trough machine	W. A. Colsten	449,107	Mar. 31	2971	751	54	1719
Eaves-troughs. Machine for forming	J. Klein	460,584	Oct. 6	64	18	57	14
Eccentric	A. Vuillier	447,386	Mar. 3	182	48	54	1153
Eccentric-rods. Disconnecting device for	E. Reynolds	448,259	Mar. 17	1614	412	54	1443
Ecgoline. Obtaining	C. T. Liebermann and F. Giesel	450,887	Apr. 21	1930		55	390
Edger. Gang	F. N. Armstrong	445,647	Feb. 3	207	55	54	553
Edger. Gang	C. B. Fisher	461,747	Oct. 20	1955	485	57	388
Edger. Grass	S. L. Allen	464,950	Dec. 15	1454	366	57	1433
Edging-machine	S. Y. Buckman	451,265	Apr. 28	2537	625	55	517
Edging-machine	P. Payette	451,162	Apr. 28	2353	585	55	482
Educational appliance	W. Clark	466,296	Dec. 29	3677	939	57	1875
Educational appliance	A. F. C. Garben	448,019	Mar. 10	1236	314	54	1359
Educational appliance	T. Hooley	463,230	Nov. 17	1602	417	57	878
Educational appliance	B. F. E. Jahr and R. H. Boeher	445,782	Feb. 3	442	110	54	598
Educational appliance	J. H. Reed	446,468	Feb. 17	1592	391	54	841
Educational device	J. J. Dofflemeyer and C. H. Wolfe	445,759	Feb. 3	402	102	54	592
Educational purposes. Frame for holding blocks for	F. W. Preston	456,708	July 28	2253	596	56	455
Egg-beater	W. H. Dennison	454,165	June 16	1477	388	55	1446
Egg-beater	E. Hadley	454,345	June 16	1739	453	55	1496
Egg-beater	A. White	449,187	Mar. 31	3100	782	54	1743
Egg-beater	E. H. Whitney and J. L. Kirby	463,818	Nov. 24	2539	662	57	1066
Egg-beater	D. A. Wilkinson	454,194	June 16	1519	399	55	1453
Egg-boiler. Automatic	G. L. Dale	447,945	Mar. 10	1105	278	54	1334
Egg boiler or cooker	F. F. Bryant	451,166	Apr. 28	2359	586	55	483
Egg-carrier	L. H. Page	445,074	Jan. 20	1765	455	54	360
Egg-carrier	T. E. Perkins	449,330	Mar. 31	3345	843	54	1786
Egg-carrying tube	H. L. Ennis	464,675	Dec. 8	1028	257	57	1341
Egg-cell case	L. Miller	465,065	Dec. 15	1669	425	57	1472
Egg-crate	W. P. Tilley and C. E. Calvert	448,281	Mar. 17	1667	432	54	1454
Egg-crate. Safety	C. C. Tilghman	449,981	Apr. 7	499	124	55	97
Egg extracting or separating device	L. K. Strang	451,684	May 5	372	91	55	650
Egg-holder	A. Iske	463,604	Nov. 17	2210	582	57	995
Egg-holder for testing eggs	J. Schuster and L. W. Link	460,891	Oct. 6	554	140	57	108
Egg-poacher	J. P. Eustis	450,564	Apr. 14	1377	340	55	272
Egg-separator	J. F. Kennedy	460,875	Oct. 6	519	132	57	102
Egg-tester	C. A. Conger	451,318	Apr. 28	2616	645	55	532
Eggs, &c. Beater for	G. N. Foster	453,998	June 9	1240	392	55	1393
Eggs. Compound as a substitute for yolk of	J. E. Furber	458,420	Aug. 25	2445		56	1018
Eggs. Device for opening hot boiled	F. N. Jewett	462,049	Oct. 27	2437	604	57	489
Eggs. Preserving	A. Deisher	445,164	Jan. 27	1915	494	54	398
Eggs. Preserving	A. M. Dodd	452,994	May 26	2512	636	55	1076
Eggs. Substitute for white of	J. E. Furber	458,419	Aug. 25	2444		56	1018
Elastic braid or web	B. Goodman	446,707	Feb. 17	1954	487	54	911
Elastic or corded fabric	W. Lapworth	445,065	Jan. 20	1752	452	54	358
Elastic or corded fabric. Woven	W. Lapworth	454,366	June 16	1774	461	55	1502
Elastic washer	C. E. Swan	454,085	June 16	1364	355	55	1423
Elastic woven fabric	G. C. Moore	456,154	July 21	1344	357	56	275
Election-booth. Portable	W. H. Bliss	463,439	Nov. 17	1944	507	57	944
Electric alarm	G. W. Adams	447,998	Mar. 10	1198	303	54	1352
Electrical alarm	C. H. Shaffer	452,735	May 19	2084	524	55	985

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Electric alarm.....	C. H. Shaffer.....	460,287	Sept. 29	2743	{ 683 684 }	{ 56 }	1624
Electric annunciator system.....	L. M. Piolet.....	453,416	June 2	380	98, 99	55	1218
Electric apparatus for treating deafness.....	G. F. Webb.....	454,313	June 16	1694	443	55	1488
Electric-arc interrupter.....	E. Thomson.....	463,762	Nov. 24	2463	644	57	1051
Electric-arc light.....	T. A. Edison.....	446,668	Feb. 17	1887	469	54	898
Electric-arc-light stations. Switch-board for.....	R. F. Sawyer.....	453,349	June 2	263	69, 70	55	1197
Electric battery.....	J. O. Brinkerhoff and M. E. Smith.....	453,898	June 9	1098	287	55	1364
Electric battery.....	D. M. Lamb.....	461,023	Oct. 13	746	193	57	152
Electric battery.....	D. M. Lamb.....	461,025	Oct. 13	748	193	57	152
Electric battery.....	D. M. Lamb.....	461,027	Oct. 13	751	193	57	153
Electric battery.....	F. Pondronx.....	457,430	Aug. 11	840	217	56	697
Electric battery.....	J. T. Van Gestel.....	451,142	Apr. 28	2320	575	55	475
Electric battery. Therapeutic.....	J. A. Crisp.....	463,945	Nov. 24	2753	714	57	1106
Electric battery. Thermo.....	J. N. Webb.....	449,186	Mar. 31	3090	781	54	1742
Electric block system. Automatic.....	J. A. Carlton and H. L. Johnston.....	449,731	Apr. 7	135	34	55	28
Electric body-wear.....	L. Anderson.....	464,691	Dec. 8	1058	263	57	1346
Electric brake.....	L. C. Atwood.....	464,002	Dec. 1	3	1	57	1137
Electric brake.....	J. C. Lincoln.....	458,587	Sept. 1	60	14	56	1077
Electric brake.....	J. M. Payne.....	451,514	May 5	105	26	55	509
Electric cable.....	D. Brooks, Jr.....	459,941	Sept. 22	2216	557	56	1516
Electric cable.....	W. I. Banker.....	450,734	Apr. 21	1678	406	55	343
Electric cable.....	W. A. Conner.....	448,604	Mar. 17	2179	544	54	1550
Electric cable.....	W. A. Conner.....	452,340	May 12	1456	361	55	857
Electric cable.....	W. A. Conner.....	452,341	May 12	1457	361	55	857
Electric cable.....	W. A. Conner.....	452,342	May 12	1458	361	55	857
Electric cable.....	W. A. Conner and J. W. Marsh.....	466,268	Dec. 29	3627	928	57	1866
Electric cable.....	J. C. Reilly.....	445,234	Jan. 27	2018	520	54	418
Electric-cable conduit.....	M. Delafor.....	456,376	July 21	1713	454	56	344
Electric-cable connector.....	S. Bergmann.....	445,365	Jan. 27	2208	572	54	457
Electric-cable holder.....	J. W. Marsh.....	450,589	Apr. 14	1415	348	55	279
Electric-cable support.....	H. B. Nichols.....	448,359	Mar. 17	1795	453	54	1479
Electric cables. Laying.....	C. H. Wilson.....	446,214	Feb. 10	1164	285	54	742
Electric-call system.....	J. B. Currier and D. H. Rice.....	446,732	Feb. 17	1992	{ 497 498 }	{ 54 }	919
Electric-circuit breaker for secondary generators.....	M. Feilbogen.....	456,889	July 28	2559	679	56	510
Electric-circuit-changing apparatus.....	H. V. Hayes.....	456,817	July 28	2436	642	56	489
Electric-circuit closer.....	R. Varley, Jr.....	464,134	Dec. 1	188	46	57	1173
Electric-circuit closer.....	J. H. R. Ward.....	454,816	June 23	2502	{ 643 644 }	{ 55 }	1645
Electric-circuit regulator.....	T. M. Edwards.....	447,177	Feb. 24	2758	682	54	1073
Electric-circuit switch. Automatic.....	W. L. Silvey.....	457,483	Aug. 11	933	237	56	713
Electric circuits. Automatic switch-board and safety cut-out for.....	E. A. Sweet.....	448,166	Mar. 10	1444	369	54	1402
Electric circuits. Controlling currents upon.....	J. Hopkinson.....	444,553	Jan. 13	905	235	54	188
Electric circuits. Fuse for.....	F. W. Maxstadt.....	449,289	Mar. 31	3261	827	54	1772
Electric circuits. Protector for use in.....	W. H. Clausen.....	454,926	June 30	2715	693	55	1693
Electric circuits. Testing-switch for.....	R. C. Smith.....	458,961	Sept. 1	644	157	56	1190
Electric circuits. Water-proof combined coupling and cut-out for.....	F. Schlaudeman.....	448,679	Mar. 24	2306	578	54	1582
Electric clamp.....	E. Rasmussen.....	458,188	Aug. 25	2046	530	56	943
Electric clamp. Adjustable.....	H. Lemp.....	458,177	Aug. 25	2031	{ 526 527 }	{ 56 }	940
Electric coil. Coin-controlled.....	E. J. Colby.....	445,220	Jan. 27	2002	515	54	415
Electric comb.....	J. M. Riley.....	458,952	Sept. 1	625	154	56	1187
Electric comb.....	J. M. Riley.....	458,953	Sept. 1	626	154	56	1187
Electric conductor.....	J. D. F. Andrews.....	451,605	May 5	240	57	55	625
Electric conductor.....	J. A. Barrett.....	462,681	Nov. 10	736	191	57	701
Electric conductor.....	E. M. Boynton.....	457,106	Aug. 4	268	70	56	584
Electric conductor.....	F. E. Degenhardt.....	458,316	Aug. 25	2273	555	56	985
Electric conductor.....	F. E. Degenhardt.....	463,107	Nov. 10	1414	365	57	835
Electric conductor.....	J. W. Marsh.....	466,250	Dec. 29	3599	921	57	1860
Electric conductor.....	E. D. McCracken.....	459,378	Sept. 8	1312	327	56	1329
Electric conductor.....	F. J. Nash.....	447,897	Mar. 10	1028	258	54	1320
Electric conductor.....	W. E. Oehrle.....	464,986	Dec. 15	1526	384	57	1445
Electric conductor.....	F. A. Perret.....	461,272	Oct. 13	1124		57	224
Electric conductor.....	C. T. Snedeker.....	463,079	Nov. 10	1360	352	57	824
Electric conductor.....	A. W. Sperry.....	454,546	June 23	2058	533	55	1564
Electric conductor.....	W. Vogler.....	460,606	Oct. 6	91	25	57	20
Electric-conductor connection.....	H. Arld.....	446,655	Feb. 17	1873	464	54	896
Electric-conductor coupling.....	W. C. Preston.....	465,202	Dec. 15	1901	482	57	1515
Electric conductor. Covered.....	T. L. Reed.....	465,888	Dec. 29	3012	770	57	1748
Electric conductor. Flexible.....	H. W. Libbey.....	459,385	Sept. 8	1322	331	56	1331
Electric-conductor joint.....	E. Carroll and T. B. Lambert.....	452,516	May 19	1743	438	55	918
Electric-conductor joint.....	H. W. Fisher.....	464,475	Dec. 1	715	175	57	1271
Electric-conductor joint.....	G. T. Manson.....	457,865	Aug. 18	1534	398	56	838
Electric-conductor splice.....	W. J. Hield.....	464,022	Dec. 1	23	8	57	1141
Electric-conductor support.....	E. M. Boynton.....	457,105	Aug. 4	267	69, 70	56	584
Electric-conductor support.....	C. Foster and W. H. Bevis.....	445,594	Feb. 3	117	30	54	534
Electric-conductor support.....	G. H. Winslow.....	459,168	Sept. 8	985	240	56	1263
Electric-conductor system. Overhead.....	G. J. Scott.....	454,881	June 30	2606	669	55	1672
Electric conductors. Bracket for supporting.....	J. A. Duggan.....	465,365	Dec. 15	2179	558	57	1567
Electric conductors. Connection for.....	J. Dillon.....	457,761	Aug. 11	1364	352	56	801
Electric conductors. Connection for.....	J. Dillon.....	461,195	Oct. 13	1003	256	57	199
Electric conductors. Distributing-frame for.....	A. S. Hibbard.....	453,863	June 9	1051	275	55	1356
Electric conductors. Flexible conduit for.....	C. H. Herrick.....	456,271	July 21	1529	406	56	309
Electric conductors. Safety connection for.....	R. H. Gould.....	451,377	Apr. 28	2694	{ 668 669 }	{ 55 }	546
Electric conductors. Supporting-post for.....	W. A. Stern.....	449,977	Apr. 7	494	123	55	96
Electric conductors. Switch for overhead.....	J. Kuehnle.....	451,696	May 5	387	94	55	653
Electric conductors. Tightening device for suspended.....	D. Mason.....	444,005	Jan. 6	34	10	54	10
Electric conductors. Tightening device for suspended.....	D. Mason.....	444,006	Jan. 6	36	10	54	10
Electric conduit.....	J. E. Price.....	453,733	June 9	872	226	55	1321
Electric conduit. Tubular.....	E. H. Johnson.....	454,275	June 16	1636	430	55	1477

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Electric conduits. Laying	A. C. Chenoweth	454,938	June 30	2734	698	55	1696
Electric conduits. Man-hole for underground	W. H. Hart	443,992	Jan. 6	6	2	54	4
Electric conduits. Means for constructing	A. C. Chenoweth	454,939	June 30	2737	698	55	1696
Electric connection	J. H. Bickford	454,794	June 23	2453	630	55	1638
Electric connection	H. J. Brewer	451,364	Apr. 28	2680	664	55	544
Electric connection	J. H. Fleming	461,668	Oct. 27	2160	532	57	436
Electric connection for track-wiring	S. H. Short	445,479	Jan. 27	2372	617	54	488
Electric connections. Fusible cut-out for	W. E. Dow	451,997	May 12	860	219	55	749
Electric connector	W. F. Z. Desant	465,430	Dec. 15	2369	582	57	1586
Electric connector	F. Wheeler	453,225	June 2	66	17	55	1161
Electric connector	G. K. Wheeler	449,721	Apr. 7	117	30	55	25
Electric contact	O. J. Depp	449,348	Mar. 31	3375	851	54	1791
Electric contact apparatus	C. Wenste	459,323	Sept. 8	1209	295 296	56	1309
Electric contact-brush	J. R. Branch	453,104	May 26	2'92	679	55	1112
Electric contact device	F. A. Perret	448,669	Mar. 24	2292	575	54	1579
Electric-contact protector	R. Varley, Jr.	449,302	Mar. 31	3280	831	54	1775
Electric converter	M. G. Farmer	488,644	Mar. 24	2254	565 566	54	1572
Electric converter. Self-regulating	T. Spencer	457,407	Aug. 11	807	207	56	690
Electric coupling	F. M. Farwell	460,045	Sept. 22	2371	592 593	56	1544
Electric-current generator. Alternating	N. Tesla	447,921	Mar. 10	1070	268	54	1327
Electric-current heater. Alternating	L. Gutmann	458,163	Aug. 25	2011	521 522	56	937
Electric-current indicator	A. B. Herrick	454,270	June 16	1630	428	55	1475
Electric-current meter	J. W. T. Olan	462,504	Nov. 3	442	109	57	634
Electric-current regulator	J. A. Williams	450,985	Apr. 21	2083	514	55	420
Electric-current regulator or rheostat	C. D. Sigbee, T. S. Hayward, and F. S. Anderson.	454,969	June 30	2784	710	55	1706
Electric currents. Automatic potential regulator for	A. L. Ellis	446,284	Feb. 10	1293	316 317	54	768
Electric currents. Means for turning on and off	T. C. Smith and B. D. Acker	465,805	Dec. 22	2858	732	57	1710
Electric currents. Meter for alternating	O. B. Shallenberger	488,676	Mar. 24	2302	577	54	1581
Electric currents. Meter for alternating	O. B. Shallenberger	448,677	Mar. 24	2303	577	54	1582
Electric currents. Meter for alternating	O. B. Shallenberger	449,002	Mar. 24	2808	711	54	1678
Electric currents. Meter for alternating	O. B. Shallenberger	449,003	Mar. 24	2810	711	54	1689
Electric currents. Phase-indicator for alternating	C. S. Bradley	444,791	Jan. 13	1266	328	54	255
Electric currents. Regulating apparatus for	W. Lahmeyer	419,288	Mar. 31	3257	826 827	54	1772
Electric currents. System for conducting	E. Britt	456,979	Aug. 4	86	21	56	550
Electric cut-off apparatus	E. W. Rice, Jr.	455,800	July 14	824	215	56	167
Electric cut-out	S. Bergmann	445,363	Jan. 27	2206	572	54	457
Electric cut-out	G. C. Gammon	447,676	Mar. 3	640	159	54	1239
Electric cut-out	J. S. Pottier	445,253	Jan. 27	2054	529	54	425
Electric cut-out	E. W. Rice, Jr.	463,770	Nov. 24	2473	646	57	1053
Electric cut-out	G. A. Scott	445,822	Feb. 3	520	125	54	613
Electric cut-out	A. T. Tregurtha	449,921	Apr. 7	414	104	55	81
Electric cut-outs. Key for	S. Bergmann	445,364	Jan. 27	2207	572	54	457
Electric distribution. System of	T. H. Hicks	465,854	Dec. 29	2946	753	57	1735
Electric-distribution systems. Multiple cut-out for	E. P. Warner	453,029	May 26	2562	648	55	1086
Electric element. Thermo	C. W. Iden	461,437	Oct. 20	1405	354	57	286
Electric elevator	W. Baxter, Jr.	464,470	Dec. 1	708	173	57	1270
Electric elevator	H. H. Blades	459,229	Sept. 8	1071	260	56	1280
Electric elevator	H. H. Blades and W. J. McKee	462,527	Nov. 3	480	116	57	643
Electric elevator	J. E. Byrne	461,493	Oct. 20	1550	380 381	57	312
Electric elevator	R. Bickemeyer	454,462	June 23	1925	502 503	55	1540
Electric elevator	N. P. Otis and R. C. Smith	444,640	Jan. 13	1027	267 268	54	212
Electric elevator	F. B. Perkins. (Reissue)	11,185	Aug. 4	687	176	56	659
Electric elevator	R. C. Smith	460,541	Sept. 29	3146	786	56	1702
Electric energy. System of distributing	R. Kennedy	461,139	Oct. 13	899	233	57	180
Electric energy. System of distributing and metering	E. Thomson	444,930	Jan. 20	1543	395	54	317
Electric engine and pump. Combined	C. J. Van Depoele	458,873	Sept. 1	518	126	56	1164
Electric engine. Reciprocating	C. J. Van Depoele	458,874	Sept. 1	520	126	56	1164
Electric-engine system. Pulsating-current reciprocating	C. J. Van Depoele	455,520	July 7	346	89	56	69
Electric fixtures. Hanger-board for	G. R. Lean	449,266	Mar. 31	3217	812	54	1765
Electric fuse cut-out	E. W. Rice, Jr.	462,452	Nov. 3	368	91	57	621
Electric gate	H. Gillette	444,825	Jan. 20	1325	343 344	54	276
Electric gate	H. Gillette	462,403	Nov. 3	303	75	57	608
Electric generator	J. C. Henderson and F. Sargent	458,702	Sept. 1	239	57	56	1111
Electric generator	C. G. Young	461,862	Oct. 27	2147	528 529	57	434
Electric generator or motor. Dynamo	J. Hoduit	459,508	Sept. 15	1518	379 380	56	1376
Electric generator. Self-exciting alternate-current	W. Stanley, Jr.	450,641	Apr. 21	1549	373	55	319
Electric generators. Driving mechanism for dynamo	S. H. Short	448,303	Mar. 17	1703	431	54	1461
Electric guest-call	A. Striemer	445,341	Jan. 27	2177	564	54	451
Electric head-light	R. Pattison and D. G. Desmond	451,184	June 16	1506	395	55	1451
Electric heater	J. I. Ashbaugh	447,143	Feb. 24	2705	670	54	1062
Electric heater	W. H. Boles	465,423	Dec. 15	2357	579 580	57	1583
Electric heater	J. V. Capek	461,814	Oct. 27	2076	513	57	419
Electric heater	T. J. Donovan	446,831	Feb. 17	2146	533	54	952
Electric heater	C. W. Drew and E. R. Francis	454,979	June 30	2812	715 716	55	1711
Electric heater	C. C. Rich	447,353	Mar. 3	120	32	54	1140
Electric heater	P. Wright	464,055	Dec. 1	67	19	57	1150
Electric indicator	E. C. Eldredge	455,855	July 14	904	237	56	182

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Electric indicator	J. Hopkinson	444,552	Jan. 13	904	235	54	188
Electric indicator	J. L. Ricketts	451,226	Apr. 28	2471	610	55	502
Electric indicator	C. Wirt	444,966	Jan. 20	1604	410	54	329
Electric induction transformer	W. Stanley, Jr.	461,135	Oct. 13	894	232	57	179
Electric-light crane	C. H. Shank	456,859	July 28	2514	660	56	502
Electric-light fixture	F. H. Aldrich	458,769	Sept. 1	329	80	56	1129
Electric-light fixture	J. G. Fischer	452,367	May 19	1498	371	55	875
Electric-light fixture	E. T. Greenfield	459,088	Sept. 8	845	205	56	1236
Electric-light fixture	E. T. Greenfield	459,705	Sept. 15	1843	464	56	1438
Electric-light fixture	J. Kintz	447,832	Mar. 10	916	229	54	1298
Electric-light hanger	G. W. Smith	454,815	June 23	2497	{ 642 643 }	55	1644
Electric-light hanger	F. A. Weimer	457,687	Aug. 11	1233	317	56	772
Electric-light or other lines. Method of and apparatus for constructing	H. Lemp	462,263	Nov. 3	65	16	57	564
Electric-light shade	J. W. Easton	449,407	Mar. 31	3488	877	54	1813
Electric-light-shade coupling	P. Levison	456,997	Aug. 4	106	26	56	554
Electric-light signal	W. R. McCann and S. S. Creider	447,894	Mar. 10	1019	{ 256 257 }	54	1318
Electric-light support	A. Dawes	444,424	Jan. 13	697	182	54	146
Electric-light systems. Circuit-breaker for incandescent	F. Müller and J. G. Greene	449,780	Apr. 7	213	54	55	43
Electric lights and power. Regulating	I. and A. Herzberg	454,650	June 23	2242	576	55	1595
Electric lights. Mast-arm for	G. Fitch	445,549	Feb. 3	32	8	54	517
Electric lights. Mast-arm for	V. A. Thomas	463,586	Nov. 17	2176	575	57	989
Electric lights. Stay for suspended	F. A. Johnson	462,669	Nov. 3	694	176	57	684
Electric lighting	R. M. Hunter	448,782	Mar. 24	2478	620	54	1615
Electric-lighting apparatus	H. B. Meech	462,444	Nov. 3	358	88	57	619
Electric lighting. Making filaments for	S. F. Van Choate	450,304	Apr. 14	985	.....	55	196
Electric-lighting system	J. I. Conklin	462,237	Nov. 3	25	6	57	556
Electric-lighting system	T. A. Edison	446,666	Feb. 17	1884	468	54	898
Electric-lighting system	F. M. Garland	462,311	Nov. 3	151	38	57	579
Electric-lighting system	G. Gibbs	449,474	Mar. 31	3600	907	54	1835
Electric-lighting system	E. J. Hodgson and J. W. Stearns, Jr	463,793	Nov. 24	2502	653	57	1050
Electric-lighting system	E. H. Johnson	449,044	Mar. 24	2870	729	54	1692
Electric-lighting system	E. Thomson	448,279	Mar. 17	1663	422	54	1453
Electric-lighting system	B. B. Ward	447,482	Mar. 3	350	89	54	1186
Electric lighting. System of	N. Tesla	454,622	June 23	2197	567	55	1588
Electric lines. Apparatus for removing inductive effects from	E. Thomson	454,890	June 30	2631	675	55	1676
Electric-line switch	E. M. Bentley	446,418	Feb. 17	1513	373	54	825
Electric line-wires. Support for	H. C. Wirt	448,703	Mar. 24	2345	588	54	1591
Electric lines, &c. Pole for	J. R. Fletcher	451,730	May 5	438	106	55	662
Electric lock	E. J. Colby	446,509	Feb. 17	1658	404	54	853
Electric lock	W. S. Hull	460,391	Sept. 29	2901	725	56	1633
Electric lock	W. J. O. Johnson	463,155	Nov. 17	1488	386	57	856
Electric lock	F. H. Starratt	463,297	Nov. 17	1711	446	57	900
Electric lock	A. S. Wiley	456,182	July 21	1387	367	56	282
Electric locked switch	F. Teague	454,087	June 16	1366	356	55	1424
Electric machine	T. H. Hicks	465,853	Dec. 29	2944	753	57	1735
Electric machine and electric motor. Dynamo	E. K. Brown	446,092	Feb. 10	949	233	54	704
Electric machine and motor. Dynamo	E. Thomson	459,422	Sept. 15	1386	{ 347 348 }	56	1351
Electric machine. Dynamo	M. C. Burt	463,242	Nov. 17	1625	{ 433 434 }	57	884
Electric machine. Dynamo	W. F. Collins	450,219	Apr. 14	843	{ 211 212 421 }	55	170
Electric machine. Dynamo	E. Desrozius	459,610	Sept. 15	1684	{ 422 423 424 }	56	1407
Electric machine. Dynamo	R. Eickemeyer	454,336	June 16	1723	450	55	1494
Electric machine. Dynamo	E. T. Gilliland	461,240	Oct. 13	1084	274	57	216
Electric machine. Dynamo	A. G. Holcombe	444,067	Jan. 6	139	35	54	30
Electric machine. Dynamo	R. Kennedy	461,140	Oct. 13	901	{ 233 234 }	57	181
Electric machine. Dynamo	S. E. Nutting	448,666	Mar. 24	2288	{ 573 574 }	54	1579
Electric machine. Dynamo	L. N. P. Poland	451,700	May 5	392	95	55	654
Electric machine. Dynamo	L. C. Rice	451,574	May 5	193	47	55	616
Electric machine. Dynamo	C. J. Schwarze	445,906	Feb. 3	639	157	54	637
Electric machine. Dynamo	R. Thury	465,808	Dec. 22	2865	733	57	1711
Electric machine. Dynamo	W. P. Wiemann	465,104	Dec. 15	1748	442	57	1487
Electric machine. Magneto	G. P. Clarke	446,661	Feb. 17	1880	467	54	897
Electric machine. Magneto	W. Humans	453,242	June 2	99	26, 27	55	1167
Electric machine or motor. Dynamo	J. B. Entz	455,790	July 14	808	211	56	164
Electric machine or motor. Dynamo	M. Mayer	461,979	Oct. 27	2339	580	57	470
Electric machine or motor. Dynamo	A. L. Parcellle	450,975	Apr. 21	2071	511	55	417
Electric machine or motor. Dynamo	E. M. Waring	457,754	Aug. 11	1354	350	56	798
Electric machine or motor. Dynamo	F. A. Wessel	452,420	May 19	1581	392	55	890
Electric-machine regulator. Dynamo	R. E. Ball	444,587	Jan. 13	955	248	54	198
Electric-machine regulator. Dynamo	J. H. Holmes	445,448	Jan. 27	2327	{ 604 605 }	54	480
Electric machine. Steam dynamo	F. M. Garland	463,121	Nov. 10	1437	{ 371 372 }	57	839
Electric machines. Automatic brush-shifter for dynamo	T. E. Adams	457,330	Aug. 4	649	170	56	654
Electric machines. Automatic cut-out for dynamo	S. H. Short	458,666	Sept. 1	187	44	56	1101
Electric machines. Automatic regulator for dynamo	W. L. Silvey	462,020	Oct. 27	2397	595	57	481
Electric machines. Brush-holder for dynamo	S. H. Short	457,526	Aug. 4	462	121	56	620
Electric machines. Brush-holder for dynamo	S. H. Short	462,883	Nov. 10	1055	274	57	764
Electric machines. Brush-holder for dynamo	E. Thomson and W. O. Wakefield	462,973	Nov. 10	1204	313	57	792
Electric machines. Field-magnet for dynamo	F. J. Sprague	461,552	Oct. 20	1646	{ 402 403 }	57	330

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Electric machines or motors. Brush-holder for dynamo-.....	C. O. C. Billberg.....	465,234	Dec. 15	1948	496	57	1525
Electric machines or motors. Brush-holder for dynamo-.....	C. O. Mailloux.....	457,358	Aug. 11	733	187	56	675
Electric machines. Regulator for dynamo-.....	F. Tischendorfer.....	451,312	Apr. 28	2607	643	55	530
Electric machines. Speed-regulator for dynamo-.....	E. E. Winkley.....	454,541	June 23	2053	531	55	1563
Electric machines. Switch for series dynamo-.....	C. R. Arnold.....	460,245	Sept. 29	2670	665	56	1610
Electric machinery. Dyamo-.....	J. B. Entz.....	444,486	Jan. 13	792	206	54	166
Electric meter.....	G. R. Baldwin.....	461,229	Oct. 13	1069	{ 270 271 }	57	213
Electric meter.....	W. K. Freeman.....	452,936	May 26	2420	{ 610 611 }	55	1059
Electric meter.....	A. B. Herrick.....	461,575	Oct. 20	1683	412	57	337
Electric meter.....	M. Koechlin.....	458,755	Sept. 1	314	76	56	1125
Electric meter.....	F. K. Irving.....	451,125	Apr. 28	2285	566	55	468
Electric meter.....	E. Meylan and W. C. Reckniewski.....	457,453	Aug. 11	874	{ 227 228 }	56	703
Electric meter.....	H. W. Miller.....	452,276	May 12	1338	334	55	835
Electric meter.....	J. W. T. Olan.....	455,575	July 7	449	{ 118 119 }	56	87
Electric meter.....	H. M. Pilkington and R. S. White.....	454,949	June 30	2753	702	55	1699
Electric meter.....	A. Reckenzaun.....	463,711	Nov. 24	2391	627	57	1037
Electric meter.....	E. W. Rice, Jr.....	451,520	May 5	110	27, 28	55	600
Electric meter.....	E. Thomson.....	444,931	Jan. 20	1545	396	54	317
Electric meter.....	E. Thomson.....	448,280	Mar. 17	1665	422	54	1453
Electric meter.....	E. Thomson.....	448,894	Mar. 24	2645	664	54	1647
Electric meter.....	A. G. Waterhouse.....	464,683	Dec. 8	1045	261	57	1344
Electric meter.....	J. J. Wood.....	455,524	July 7	351	{ 90 91 92 }	56	70
Electric motor.....	W. A. Anthony.....	444,416	Jan. 13	687	179	54	144
Electric motor.....	E. Baker.....	453,031	May 26	2565	649	55	1087
Electric motor.....	H. H. Blades.....	454,024	June 16	1275	{ 331 332 }	55	1407
Electric motor.....	W. H. Chapman.....	447,939	Mar. 10	1097	{ 275 276 }	54	1333
Electric motor.....	D. J. Chisholm.....	452,214	May 12	1244	{ 314 315 }	55	817
Electric motor.....	M. H. Collom.....	464,063	Dec. 1	86	22	57	1153
Electric motor.....	J. W. Davis and J. B. Farrington.....	459,678	Sept. 15	1802	453	56	1430
Electric motor.....	W. M. Dresskell.....	445,499	Jan. 27	2403	627	54	494
Electric motor.....	C. E. Egan.....	458,545	Aug. 25	2639	642	56	1055
Electric motor.....	R. Eickemeyer.....	451,320	Apr. 28	2618	646	55	532
Electric motor.....	H. A. Florian.....	464,299	Dec. 1	473	113	57	1224
Electric motor.....	L. G. Goode.....	455,711	July 7	671	177	56	130
Electric motor.....	E. Gray.....	452,429	May 19	1599	{ 397 398 }	55	894
Electric motor.....	H. Groswith. (Reissue).....	11,210	Dec. 15	2292	588	57	1591
Electric motor.....	L. Gutmann.....	446,864	Feb. 24	2208	549	54	972
Electric motor.....	L. Gutmann.....	458,162	Aug. 25	2008	{ 520 521 }	56	936
Electric motor.....	E. M. G. Hewett.....	451,870	May 5	642	{ 160 161 }	55	700
Electric motor.....	E. M. G. Hewett.....	460,087	Sept. 22	2431	608	56	1556
Electric motor.....	W. S. Hill.....	457,534	Aug. 11	1004	257	56	728
Electric motor.....	W. E. Hyer.....	451,559	May 5	175	42	55	613
Electric motor.....	C. J. Kintner.....	452,795	May 26	2184	{ 547 548 }	55	1013
Electric motor.....	C. J. Kintner.....	457,902	Aug. 18	1600	416	56	849
Electric motor.....	F. M. La Boiteau.....	451,872	May 5	647	162	55	701
Electric motor.....	F. L. McGahan.....	455,109	June 30	3041	773	55	1756
Electric motor.....	F. L. McGahan.....	455,110	June 30	3043	{ 773 774 }	55	1757
Electric motor.....	E. B. Meyrowitz and F. Buchhop.....	447,734	Mar. 3	731	183	54	1256
Electric motor.....	N. P. Otis and R. C. Smith.....	458,976	Sept. 1	668	{ 163 164 }	56	1196
Electric motor.....	F. J. Patten.....	445,623	Feb. 3	163	43, 44	54	543
Electric motor.....	F. J. Patten.....	445,624	Feb. 3	166	44	54	544
Electric motor.....	H. H. Porter.....	455,765	July 14	760	200	56	155
Electric motor.....	F. B. Rae.....	454,626	June 23	2206	568	55	1589
Electric motor.....	J. R. Robinson.....	464,231	Dec. 1	353	85	57	1200
Electric motor.....	A. B. Roney.....	454,627	June 23	2208	{ 568 569 }	55	1589
Electric motor.....	E. Thomson.....	458,646	Sept. 1	153	36, 37	56	1095
Electric motor.....	R. W. Traylor.....	447,704	Mar. 3	683	170	54	1247
Electric motor.....	C. J. Van Depoele.....	444,188	Jan. 6	342	83, 84	54	60
Electric motor and dynamo.....	A. L. Parcelle.....	463,704	Nov. 24	2361	623	57	1035
Electric motor and generator.....	I. E. Storey.....	463,693	Nov. 24	2362	619	57	1032
Electric motor and lamp-socket. Combined.....	R. H. Beach.....	444,807	Jan. 20	1297	337	54	271
Electric-motor brake.....	A. J. Shaw.....	465,999	Dec. 29	3213	{ 818 819 }	57	1725
Electric motor for wheeled vehicles.....	R. S. Dobbie.....	452,992	May 26	2507	635	55	1075
Electric-motor mechanism.....	S. E. Mower.....	447,255	Feb. 24	2891	718	54	1100
Electric-motor mechanism.....	S. E. Mower.....	450,970	Apr. 21	2061	508	55	415
Electric-motor mechanism.....	S. E. Mower.....	463,639	Nov. 24	2272	598	57	1016
Electric motor or dynamo-electric machine.....	W. F. Collins.....	451,894	May 5	677	171	55	707
Electric motor or dynamo-electric machine.....	C. G. Curtis.....	455,898	July 14	967	{ 252 253 }	56	194
Electric motor or dynamo-electric machine.....	S. S. Wheeler.....	451,884	May 5	664	168	55	705
Electric motor or generator.....	W. F. Brown.....	455,726	July 7	699	{ 183 184 }	56	134
Electric motor or generator.....	W. K. Freeman.....	452,934	May 26	2418	609	55	1058
Electric motor or generator.....	W. K. Freeman.....	452,935	May 26	2419	610	55	1058
Electric motor or generator.....	A. L. Riker.....	452,717	May 19	2061	519	55	991

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Electric motor or generator	J. F. Seiberling	450,639	Apr. 21	1547	372	55	318
Electric motor or generator. Dynamo	E. Thomson	447,384	Mar. 3	173	47	54	1151
Electric motor. Pulsating-current	C. J. Van Depoele	450,544	Apr. 14	1353	333	55	267
Electric-motor reciprocating engine	C. J. Van Depoele	445,102	Jan. 20	1808	467	54	368
Electric-motor regulating apparatus	M. J. Wightman	444,900	Jan. 20	1481	382 383	54	305
Electric-motor regulator	L. S. Harris	446,229	Feb. 10	1184	290	54	746
Electric-motor starting device	E. P. Sharp	445,907	Feb. 3	639	157	54	637
Electric-motor switch	E. W. Rice, Jr.	465,292	Dec. 15	2045	522	57	1542
Electric-motor switch	F. A. Weller	445,741	Feb. 3	369	95	54	585
Electric-motor switch	F. A. Wessel	453,318	June 2	216	57	55	1188
Electric motors and dynamo-electric machines. Automatic regulator for	S. S. Wheeler	455,267	June 30	3294	534 535	55	1804
Electric motors. Automatic cut-out for	S. S. Wheeler	464,948	Dec. 8	1445	363	57	1422
Electric motors. Automatic starting-switch for	F. A. Wessel	453,319	June 2	217	57	55	1189
Electric motors. Automatic starting-switch for	F. A. Wessel	453,320	June 2	219	57	55	1189
Electric motors. Automatic switch for	W. Baxter, Jr.	449,660	Apr. 7	10	2	55	5
Electric motors. Automatic switch for	R. Macrae	453,287	June 2	165	46	55	1179
Electric motors. Automatic switch for	F. E. Whipple	450,441	Apr. 14	1213	296	55	237
Electric motors. Brush-holder for	J. E. Lyons	463,635	Nov. 24	2267	597	57	1015
Electric motors. Circuit and switch for	W. Lahmeyer	463,605	Nov. 17	2211	582	57	995
Electric motors. Constructing field-magnets of	S. S. Wheeler	451,885	May 5	665	169	55	705
Electric motors. Controlling device for	F. O. Blackwell	452,422	May 19	1586	393 394	55	891
Electric motors. Controlling device for	F. O. Blackwell	452,423	May 19	1587	394	55	892
Electric motors. Controlling device for	F. O. Blackwell	462,369	Nov. 3	242	59	57	596
Electric motors. Controlling-switch for	S. S. Wheeler	460,078	Sept. 22	2412	603 604	56	1552
Electric motors. Governing device for	W. Baxter, Jr.	466,028	Dec. 29	3258	531	57	1795
Electric motors. Operating alternating	L. Gutmann	458,164	Aug. 25	2015	522 523	56	937
Electric motors. Regulating the speed of	M. J. Wightman	460,614	Oct. 6	105	28, 29	57	23
Electric motors. Speed-regulator for	S. H. Short	448,681	Mar. 24	2308	579	54	1583
Electric motors. Starting device for	E. P. Sharp	451,212	Apr. 28	2447	604	55	498
Electric motors. Starting-switch for	C. C. Haskins	453,367	June 2	290	76	55	1202
Electric motors. Switch-actuating mechanism for	C. G. Armstrong	465,404	Dec. 15	2234	573	57	1578
Electric ping circuit-closer	J. L. Kimball	466,052	Dec. 29	3298	842	57	1803
Electric push	J. F. Wollensak	459,605	Sept. 15	1679	419	56	1406
Electric push-button	M. Strauss	452,397	May 19	1545	383	55	884
Electric reciprocating engine	C. J. Van Depoele	452,296	May 12	1366	340	55	840
Electric regulator	C. W. Holtzer and G. E. Cabot	464,136	Dec. 1	190	46, 47	57	1173
Electric regulator	J. F. McElroy	460,059	Sept. 22	2386	596	56	1547
Electric regulator for constant potential	C. Hering	454,475	June 23	1947	508	55	1543
Electric regulator for constant potential	C. Hering	454,476	June 23	1949	508	55	1544
Electric resistance-box	R. Eickemeyer, Jr.	454,207	June 16	1539	405	55	1458
Electric safety-catch	J. W. Howell	460,140	Sept. 29	2522	628	56	1580
Electric safety cut-out device	A. G. Waterhouse	463,086	Nov. 10	1370	354	57	826
Electric search-light	G. Sautter	454,604	June 23	2168	560 561	55	1583
Electric signal	R. H. Gruschew	450,458	Apr. 14	1234	302	55	241
Electric signal and switch-moving mechanism	J. Ramsey, Jr., E. W. Harden, and C. M. Wilder.	458,489	Aug. 25	2555	622 623	56	1038
Electric signal device. Magneto	N. B. Ginocchio	447,045	Feb. 24	2525	626 627	54	1029
Electric signal for steam-vessels	D. D. Wass	455,138	June 30	3091	787	55	1760
Electric signal-receiving instrument	G. L. Foote and W. C. Moore	454,643	June 23	2231	574	55	1593
Electric snap-switch	W. S. Andrews	465,511	Dec. 22	2410	616	57	1622
Electric snap-switch	G. W. Hart	447,728	Mar. 3	722	181	54	1254
Electric snap-switch	G. W. Hart	459,706	Sept. 15	1816	464	56	1438
Electric solenoids. Core for	J. T. Williams	460,926	Oct. 6	603	153	57	117
Electric starting-switch	W. Hochhausen	447,827	Mar. 10	908	226 227	54	1297
Electric stop mechanism	E. Boening	458,278	Aug. 25	2219	544	56	975
Electric stop mechanism	W. H. Kilbourn	457,838	Aug. 18	1487	387 388	56	830
Electric stop mechanism	L. Mellett	463,198	Nov. 17	1558	405 406	57	870
Electric stop-motion	C. A. Dayton	451,649	May 5	315	77	55	639
Electric subway	J. C. Reilly	458,778	Sept. 1	347	84	56	1132
Electric subway-switch	L. A. Fehr	463,808	Nov. 24	2525	659	57	1063
Electric switch	F. Adam and J. Knapik	450,551	Apr. 14	1362	336	55	269
Electric switch	B. W. Allen	459,465	Sept. 15	1451	365	56	1364
Electric switch	E. J. Bagnall	463,311	Nov. 17	1734	453	57	904
Electric switch	H. Barton	465,444	Dec. 22	2295	589	57	1601
Electric switch	H. H. Blades	457,339	Aug. 11	701	180	56	668
Electric switch	W. C. Bryant	457,300	Aug. 4	596	156	56	643
Electric switch	L. D. Castor	457,301	Aug. 4	598	156	56	644
Electric switch	L. D. Castor	459,219	Sept. 8	1060	258	56	1278
Electric switch	H. A. Chase	451,397	Apr. 28	2725	676 677	55	552
Electric switch	H. T. Clark	447,667	Mar. 10	979	245	54	1310
Electric switch	H. T. Clark	449,282	Mar. 31	3247	822	54	1770
Electric switch	H. T. Clark	451,267	Apr. 28	2539	626	55	518
Electric switch	H. T. Clark	451,268	Apr. 28	2541	626	55	518
Electric switch	H. T. Clark	454,031	June 16	1284	335	55	1409
Electric switch	G. Cutter and C. G. Armstrong	445,310	Jan. 27	2132	550 551	54	441
Electric switch	C. G. Dahlgren and J. H. Svenssen	455,837	July 14	883	232	56	178
Electric switch	J. Des Brisay	454,995	June 30	2848	724	55	1718
Electric switch	W. K. Freeman	452,937	May 26	2422	611	55	1059
Electric switch	L. F. Furlong and F. O. Tucker	453,633	June 9	722	186	55	1292
Electric switch	J. W. Hoffman	445,752	Feb. 3	389	99	54	589
Electric switch	M. Hoopes	462,353	Nov. 3	218	53	57	592
Electric switch	R. M. Hunter	462,407	Nov. 3	308	76	57	609

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Electric switch	E. H. Jobuson	418,431	Mar. 17	1910	480	54	1500
Electric switch	W. J. Kelly	466,244	Dec. 29	35-2	{ 916 917 }	57	1858
Electric switch	B. B. Keyes	445,146	Jan. 20	1882	486	54	383
Electric switch	G. R. Lean	445,957	Feb. 3	718	175	54	653
Electric switch	G. R. Lean	446,623	Feb. 17	1820	450	54	885
Electric switch	G. R. Lean	461,761	Oct. 20	1981	490	57	393
Electric switch	W. Mitchell	453,888	June 9	1087	284	55	1362
Electric switch	J. A. Norton	450,973	Apr. 21	2069	510	55	417
Electric switch	J. M. Orford and J. C. English	447,788	Mar. 10	838	210	54	1284
Electric switch	G. E. Painter	465,618	Dec. 22	2588	658	57	1655
Electric switch	R. D. Pratt	448,365	Mar. 17	1804	455	54	1480
Electric switch	E. A. Sperry	446,031	Feb. 10	853	207	54	686
Electric switch	A. Swan	461,456	Oct. 20	1435	361	57	292
Electric switch	D. B. Turner	463,386	Nov. 17	1886	492	57	932
Electric switch	S. P. Van Nort	448,698	Mar. 24	2339	587	54	1589
Electric switch	L. S. White	461,298	Oct. 13	1168	297	57	234
Electric switch	W. White	451,190	Apr. 28	2418	597	55	493
Electric switch	C. E. Wilson	449,188	Mar. 31	3101	782	54	1743
Electric switch	C. E. Wilson	444,374	Jan. 6	611	157	54	121
Electric switch	C. Wirt	460,618	Oct. 6	116	30	57	25
Electric switch	A. Wissler	458,779	Sept. 1	526	128	56	1166
Electric switch and case for the same	C. P. Chappell	465,426	Dec. 15	2263	581	57	1584
Electric switch and cut-out	W. Hochhausen	447,826	Mar. 10	906	{ 225 226 }	54	1296
Electric switch. Automatic	R. Baumann	453,572	June 2	615	157	55	1264
Electric switch. Automatic	S. Bergmann	461,791	Oct. 20	2032	501	57	402
Electric switch. Automatic	C. O. C. Billberg and P. A. N. Winand	455,092	June 30	3017	767	55	1751
Electric switch-box	J. H. Dean	449,362	Mar. 31	3408	857	54	1797
Electric-switch casing	A. Wissler	458,880	Sept. 1	528	128	56	1166
Electric-switch mechanism. Automatic	H. H. Blades	453,032	May 26	2566	649	55	1087
Electric switching apparatus	G. T. Briggs	452,359	May 19	1489	369	55	873
Electric system. Overhead	C. A. Lieb	454,486	June 23	1964	512	55	1547
Electric systems. Conduit for underground or sub-way	J. J. Miller	454,177	June 16	1495	392	55	1449
Electric systems. Mechanical switch for	C. Dauffenbach	457,110	Aug. 4	274	71	56	585
Electric track-signal	H. A. Parrish	464,655	Dec. 8	997	249	57	1335
Electric track-signal	M. W. Parrish	457,058	Aug. 4	191	47	56	570
Electric-wire clamp	J. J. Green and G. C. Brown	464,770	Dec. 8	1184	294	57	1369
Electric-wire cleat	H. P. Ball	458,964	Sept. 1	646	158	56	1191
Electric-wire conduit	H. W. Johns	459,509	Sept. 15	1520	380	58	1377
Electric-wire conduit	H. W. Johns	465,564	Dec. 22	2502	638	57	1640
Electric-wire conduit	T. T. La Point, J. H. Flanagan, and C. A. Thompson	451,941	May 12	769	195	55	731
Electric-wire conduit	W. Vogler	460,607	Oct. 6	92	25	57	20
Electric-wire conduit	A. P. Wright	444,477	Jan. 13	776	202	54	162
Electric-wire conduit. Underground	H. B. Cobb	451,614	May 5	257	62	55	628
Electric-wire connection	H. P. Ball	461,562	Oct. 20	1664	407	57	334
Electric-wire connection	E. J. Gately	450,581	Apr. 14	1397	345	55	276
Electric-wire connector	J. W. Hoffman	445,751	Feb. 3	388	99	54	589
Electric-wire connector	G. R. Scringham	461,452	Oct. 20	1429	360	57	290
Electric-wire connector	F. Shlaudemann	448,680	Mar. 24	2307	579	54	1583
Electric-wire coupler	J. H. Delany	461,568	Oct. 20	1673	410	57	335
Electric-wire coupling	F. X. Gartland	463,420	Nov. 17	1919	501	57	939
Electric-wire coupling	A. M. Hunt	451,933	May 12	759	192	55	729
Electric-wire coupling	C. M. Knight and T. Hawken	447,833	Mar. 10	917	230	54	1298
Electric-wire crossing	C. H. McKee	458,063	Aug. 18	1857	484	56	900
Electric wire. Glass-covered	W. Curry	452,565	May 19	1816	457	55	932
Electric-wire pole	C. A. Lieb	453,286	June 2	163	46	55	1179
Electric-wire pole	J. Meyer and C. Binder	449,375	Mar. 31	3430	862	54	1801
Electric-wire safety device	J. H. Sedlmeyer	457,374	Aug. 11	759	195	56	680
Electric-wire subway	V. Readman	454,155	June 16	1465	384	55	1443
Electric-wire support	R. Ellison	464,298	Dec. 1	472	113	57	1224
Electric-wire support	C. A. Lieb	448,246	Mar. 17	1586	405	54	1438
Electric-wire support	C. A. Lieb and E. Lavens	450,587	Apr. 14	1411	348	55	278
Electric-wire support and cut-out	E. R. Whitney	448,468	Mar. 17	1965	494	54	1510
Electric-wire-support bracket	O. B. Hall	462,315	Nov. 3	157	40	57	581
Electric-wire suspender	C. A. Lieb	452,017	May 12	888	228	55	754
Electric wires. Adjustable support for	T. H. Brady	453,036	May 26	2571	650	55	1088
Electric wires. Attachment for poles for	E. Verstraete	456,683	July 28	2208	585	56	447
Electric wires. Binding-post for	H. P. Ball	449,307	Mar. 31	3296	833	54	1778
Electric wires. Cable-box for	J. N. Keller and J. A. McCoy	459,523	Sept. 15	1544	{ 385 386 }	56	1381
Electric wires. Cable-head for	U. H. Balsley	456,611	July 28	2097	555	56	425
Electric wires. Connector for	E. L. Nash, G. G. Stout, and J. R. Davis	454,181	June 16	1501	393	55	1450
Electric wires. Covering	T. W. Norman	449,168	Mar. 31	3061	774	54	1736
Electric wires. Cross-tree for suspended	J. Levy	462,564	Nov. 3	547	133	57	655
Electric wires. Elastic metallic pole for	C. A. Lieb	449,125	Mar. 31	3000	758	54	1725
Electric wires. Method of and apparatus for covering	J. E. Walcott	450,639	Apr. 21	1853	451	55	375
Electric wires. Safety device for overhead	M. Kerstein	450,626	Apr. 21	1490	366	55	300
Electric wiring in buildings. Conduit for	S. Bergmann	447,861	Mar. 10	966	242	54	1308
Electric wiring. Molding for	G. Cutler	444,377	Jan. 6	614	158	54	121
Electrical alarm	H. P. Smith	460,895	Oct. 6	560	141	57	109
Electrical alarm system	J. P. McMahon	459,591	Sept. 15	1656	414	56	1402
Electrical apparatus. Coin-controlled	T. L. Brooks	456,718	July 28	2266	{ 601 602 }	56	458
Electrical circuits. Temperature-regulating device for	E. Weston	466,087	Dec. 29	3348	855	57	1813
Electrical conductor	P. H. Holmes	463,512	Nov. 17	2041	535	57	964
Electrical conductors. Automatic safety cut-out for	R. A. Morgan, Jr., and G. C. Bosson, Jr.	463,867	Nov. 24	2628	{ 685 686 }	57	1083
Electrical conductors. Wall-fixture for	O. H. Pieper and F. M. Watson	454,226	June 16	1564	411	55	1463

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Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.	
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Electrical conductors with lead. Machine for covering	L. W. Tracy	451,960	May 12	797	{ 201 202	{ 55	737
Electrical conduit	E. T. Greenfield	461,677	Oct. 20	1346	{ 456 457	{ 57	367
Electrical conduit	J. C. Love	463,197	Nov. 17	1556	407	57	869
Electrical connecting device	H. P. Ball	461,563	Oct. 20	1665	407	57	334
Electrical conversion and distribution. Method of and apparatus for	N. Tesla	462,418	Nov. 3	324	79	57	612
Electrical currents. Time-registering device for	W. D. Wilder and W. Cobb, Jr.	464,540	Dec. 8	823	202	57	1301
Electrical distribution. System of	M. Feilbogen	456,888	July 28	2558	672	56	510
Electrical distribution. System of	F. A. La Roche	453,597	June 2	652	167	55	1271
Electrical distribution. System of	F. A. La Roche	465,594	Dec. 22	2551	650	57	1648
Electrical distribution. System of	E. W. Rice, Jr.	460,364	Sept. 29	2867	716	56	1647
Electrical distribution. System of	E. Thomson	459,423	Sept. 15	1391	348	56	1352
Electrical distribution. System of	C. J. Van Depoele	450,541	Apr. 14	1347	{ 331 332	{ 55	265
Electrical energy. Method of and apparatus for developing motion from	R. Eickemeyer	448,326	Mar. 17	1742	440	54	1469
Electrical energy of alternating currents into mechanical motion. Method of and apparatus for converting the	C. S. Bradley	460,046	Sept. 22	2365	592	56	1543
Electrical fixture	E. T. Greenfield	459,704	Sept. 15	1841	463	56	1437
Electrical generator	V. Hirbec	464,156	Dec. 1	222	53	57	1178
Electrical heater	J. V. Căpek	449,035	Mar. 24	2855	726	54	1689
Electrical heater	J. V. Căpek	449,036	Mar. 24	2857	726	54	1689
Electrical indicating-instrument	E. Weston	465,442	Dec. 15	2288	587	57	1590
Electrical indicator	C. Wirt	448,792	Mar. 24	2491	623	54	1618
Electrical lock	H. Grefen	450,068	Apr. 7	616	{ 155 156	{ 55	120
Electrical meter	N. Tesla	455,068	June 30	2982	759	55	1745
Electrical propulsion. Closed-conduit system for	W. B. Heron	457,778	Aug. 18	1388	359	56	812
Electrical protector	I. N. Miller	448,960	Mar. 24	2768	700	54	1671
Electrical recorder for voltmeters, thermometers, &c.	C. W. Ayton	459,863	Sept. 22	2093	{ 525 526	{ 56	1493
Electrical resistance. Asymmetrical	T. D. Bottome	445,687	Feb. 3	285	75	54	568
Electrical safety-switch	G. L. Hall	453,046	May 26	2587	654	55	1091
Electrical sporting-indicator	S. D. Mott	444,452	Jan. 13	732	{ 191 192	{ 54	153
Electrical sporting-indicator	S. D. Mott	444,453	Jan. 13	735	192	54	154
Electrical subway	J. C. Reilly	447,350	Mar. 3	116	30, 31	54	1139
Electrical switch	H. H. Blades	457,338	Aug. 11	699	180	56	668
Electrical switch	G. B. Martratt	465,997	Dec. 29	3209	818	57	1784
Electrical switch-board	J. B. Lyon	452,921	May 26	2384	603	55	1050
Electrical testing-instrument	R. Varley, Jr.	465,809	Dec. 22	2567	734	57	1711
Electrical transformer	R. Kennedy	447,569	Mar. 3	483	120	54	1209
Electrical transformer	A. Poleschko	464,677	Dec. 8	1031	258	57	1341
Electrical transmission of power	R. M. Hunter	460,071	Sept. 22	2404	602	56	1550
Electrical undulations. Apparatus for intensifying	J. C. Ludwig	448,153	Mar. 10	1422	363	54	1398
Electrically-operated elevator	F. E. Herdman	466,037	Dec. 29	3275	{ 835 836	{ 57	1797
Electrically reproducing irregular or undulating surfaces. Process of and apparatus for	N. S. Amstutz	448,404	Mar. 17	1865	469	54	1492
Electricity and charging secondary batteries. Wind apparatus for generating	J. M. Mitchell	452,546	May 19	1789	450	55	927
Electricity and charging secondary batteries. Wind apparatus for generating	J. M. Mitchell	457,657	Aug. 11	1188	{ 304 305	{ 56	763
Electricity. Apparatus for administering	G. H. Bethel	455,981	July 14	1093	287	56	216
Electricity. Process of and apparatus for generating	T. A. Edison	460,122	Sept. 29	2494	621	56	1575
Electricity. System of distributing	T. A. Edison	464,892	Dec. 8	1258	315	57	1344
Electro-chemical transformer	T. D. Bottome	458,632	Sept. 1	167	39	56	1097
Electro-deposition and cathode therefor	A. C. Reinfeld	454,381	June 16	1801	...	55	1506
Electro-dynamic machine	G. J. Scott	454,882	June 30	2610	{ 669 670	{ 55	1673
Electro-magnetic apparatus	L. G. Woolley	450,923	Apr. 21	1975	485	55	399
Electro-magnetic brake	A. J. Shaw	461,052	Oct. 13	787	201	57	158
Electro-magnetic cut-out	S. H. Cobb	456,940	Aug. 4	16	4	56	536
Electro-magnetic cut-out	L. Gutmann	446,515	Feb. 17	1664	{ 406 407	{ 54	855
Electro-magnetic cut-out	G. Taintor	447,529	Mar. 3	436	107	54	1199
Electro-magnetic device	M. G. Crane	449,206	Mar. 31	3126	759	54	1748
Electro-magnetic device	G. E. Lean	459,766	Sept. 22	1968	496	56	1468
Electro-magnetic engine	C. B. Kells, Jr.	453,260	June 2	128	34	55	1172
Electro-magnetic engines. Circuit-controller for	C. J. Van Depoele	458,869	Sept. 1	505	123	56	1162
Electro-magnetic motor	E. D. Chaplin	448,603	Mar. 17	2176	{ 543 544	{ 54	1550
Electro-magnetic motor	N. Tesla	445,207	Jan. 27	1979	511	54	410
Electro-magnetic motor	N. Tesla	455,067	June 30	2980	759	55	1745
Electro-magnetic motor	N. Tesla	459,772	Sept. 22	1947	491	56	1464
Electro-magnetic motor	N. Tesla	464,666	Dec. 8	1616	257	57	1339
Electro-magnetic-motor gearing	C. E. Chinnock	462,348	Nov. 3	213	51	57	501
Electro-magnetic reciprocating engine	C. J. Van Depoele	450,543	Apr. 14	1352	333	55	267
Electro-magnetic reciprocating engine	C. J. Van Depoele	458,872	Sept. 1	517	128	56	1163
Electro-magnetic separator	G. M. Gouyard	460,962	Oct. 13	655	169	57	135
Electro-magnetic separator	R. R. Moffatt and S. Chichester	442,321	Nov. 3	163	42	57	582
Electro-magnetic separator	R. R. Moffatt and S. Chichester	462,322	Nov. 3	166	42	57	582
Electro-magnetic switch	C. H. Herrick and W. M. Rand	463,192	Nov. 17	1547	404	57	868
Electro-motive-force regulator	E. M. Bentley	456,612	July 28	2099	555	56	425
Electro-motor engine	S. Z. de Ferranti	457,875	Aug. 18	1555	404	56	842
Electro-pneumatic-tube system. Automatic	W. G. Collins	460,081	Sept. 22	2419	605	56	1554
Electro-therapeutic apparatus	E. Granert	456,219	July 21	1443	382	56	293
Electro-therapeutic apparatus	W. J. Herdman	458,625	Sept. 1	119	27	56	1089
Electro-therapeutic apparatus. Regulator for	J. H. Davis	450,577	Apr. 14	1392	{ 343 344	{ 55	275

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Electro-therapeutic bath	C. P. Hoffman and W. B. Van Houten.	459,852	Sept. 22	2075	521	56	1490
Electrode for chairs	G. W. Overall	450,127	Sept. 8	919	221	56	1251
Electrode for electric batteries. Carbon.	E. A. Le Sueur	450,105	Apr. 7	674	170	55	132
Electrode. Secondary-battery	B. Anderson	454,818	June 23	2505	644	55	1645
Electrode. Secondary-battery	F. Bain	444,969	Jan. 20	1609	411	54	329
Electrode. Secondary-battery	S. H. Barrett	445,872	Feb. 3	590	144	54	627
Electrode. Secondary-battery	S. C. C. Currie	444,392	Jan. 6	642	167	54	126
Electrode. Secondary-battery	J. B. Entz and W. A. Phillips.	461,823	Oct. 27	2094	516	57	423
Electrode. Secondary-battery	O. C. Flick	456,558	July 28	2005	529	56	407
Electrode. Secondary-battery	J. B. McDonald	460,235	Sept. 29	2655	661	56	1607
Electrode. Secondary-battery	W. Morrison	464,676	Dec. 8	1029	257	57	1341
Electrode. Secondary-battery	L. Paget	457,555	Aug. 11	1038	267	56	735
Electrode. Secondary-battery	W. A. Rosenbaum	460,599	Oct. 6	83	23	57	19
Electrode. Secondary-battery	M. M. M. Slatery	446,104	Feb. 10	967		54	707
Electrodes for secondary batteries. Making.	H. H. Lloyd	451,407	Apr. 28	2742	679	55	556
Electrolyte for galvanic batteries	J. J. Collins	448,936	Mar. 24	2705		54	1659
Electrolytic apparatus	E. A. Le Sueur	450,103	Apr. 7	669	169	55	131
Electrolytic cell	E. A. Le Sueur	450,104	Apr. 7	672	170	55	131
Electrolytic cells. Diaphragm for	E. A. Le Sueur	455,451	July 7	242		56	49
Electroplating small articles. Apparatus for	F. W. Zingsem	449,890	Apr. 7	366	93	55	72
Electrotype or stereotype shells. Backing for	J. C. Wolfe	447,626	Mar. 3	579	143	54	1227
Electrotype or stereotype shells. Backing for	J. C. Wolfe	447,627	Mar. 3	580	143	54	1227
Elevator:							
See Chain elevator. Hay-elevator.							
Clothes-line elevator. Hod-elevator.							
Coal or grain elevator. Hydraulic elevator.							
Convertible elevator. Ice-elevator.							
Cotton or hay elevator. Package-elevator.							
Electric elevator. Platform-elevator.							
Electrically-operated elevator. Pneumatic elevator.							
Grain-elevator. Portable elevator.							
	Skirt-elevator.						
	Sucker-rod elevator.						
	Wagon-bed elevator.						
	Water-elevator.						
Elevator	C. E. Albro	453,457	June 2	450	115	55	1233
Elevator	C. W. Baldwin	456,106	July 14	1265	332 333	56	250
Elevator	P. H. Brodesser	462,233	Nov. 3	13	3	57	555
Elevator	R. T. Crane	464,740	Dec. 8	1139	282	57	1360
Elevator	D. E. Crosby	452,426	May 19	1592	395	55	893
Elevator	C. E. Foster	452,370	May 19	1501	372	55	875
Elevator	C. E. Foster	459,238	Sept. 8	1086	265	56	1283
Elevator	G. L. Gilbert	456,194	July 21	1408	373	56	287
Elevator	G. Hancock	457,645	Aug. 11	1171	300	56	760
Elevator	J. Hangoczky	462,668	Nov. 3	693	175 176	57	684
Elevator	T. W. Heermans	446,679	Feb. 17	1913	475 476	54	903
Elevator	T. W. Heermans	455,794	July 14	814	213	56	165
Elevator	J. R. Hopper	454,591	June 23	2136	550 551	55	1578
Elevator	E. W. Houser	458,627	Sept. 1	124	27, 28	56	1090
Elevator	W. H. Jones	447,117	Feb. 24	2633	653 654	54	1050
Elevator	J. D. Kelley and W. L. Woods	454,945	June 30	2746	700	55	1698
Elevator	G. Lagerquist	451,127	Apr. 28	2297	569	55	470
Elevator	E. Landis	463,632	Nov. 24	2264	596	57	1014
Elevator	J. Lee	464,664	Dec. 8	1012	253	57	1338
Elevator	J. Little	457,479	Aug. 11	926	236	56	711
Elevator	T. L. Marvel	447,435	Mar. 3	269	68	54	1168
Elevator	E. S. Matthews	455,536	July 7	380	98	56	75
Elevator	G. B. Mills	456,048	July 14	1191	313	56	235
Elevator	C. E. Ongley	446,137	Feb. 10	1022	252 253	54	718
Elevator	N. P. Otis	447,899	Mar. 10	1032	259	54	1320
Elevator	C. R. Pratt	448,788	Mar. 24	2484	621 622	54	1617
Elevator	C. R. Pratt	450,252	Apr. 14	915	226 227	55	182
Elevator	G. H. Reynolds	458,429	Aug. 25	2457	598	56	1020
Elevator	P. Schmidt	466,188	Dec. 29	3503	895	57	1843
Elevator	N. M. Seelye	465,214	Dec. 15	1918	487	57	1519
Elevator	J. B. Stoner	461,396	Oct. 13	1339	337	57	266
Elevator	A. Sundh	446,397	Feb. 10	1466	360	54	803
Elevator	A. Sundh	458,991	Sept. 1	690	168 169	56	1201
Elevator	T. J. Thorp	465,587	Dec. 22	2537	646 647	57	1646
Elevator	T. J. Underwood	448,699	Mar. 24	2340	648	54	1590
Elevator	R. R. Williams	465,229	Dec. 15	1939	493 494	57	1523
Elevator and carrier	P. H. Brodesser	451,260	Apr. 28	2526	623	55	514
Elevator and conveyer	F. T. Patterson and A. Feldpauche.	465,198	Dec. 15	1896	481	57	1514
Elevator and conveyer	C. H. Phillips	454,663	June 23	2259	580	55	1599
Elevator and conveyer	C. H. Phillips	456,428	July 21	1801	476	56	359
Elevator and conveyer	C. H. Phillips and C. J. Seymour	456,518	July 21	1939	511	56	387
Elevator and dump	W. H. Enos	465,171	Dec. 15	1858	471	57	1507
Elevator and endless carrier	P. Newcomer	444,540	Jan. 13	882	229	54	184
Elevator and stacker	G. J. States and G. E. Hall	464,530	Dec. 8	810	198 199	57	1298

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Elevator-brake	T. W. Eaton	446,621	Feb. 17	1817	449	54	884
Elevator-brake	G. Lagerquist	465,325	Dec. 15	2098	536	57	1552
Elevator-controller	C. W. Baldwin	456,107	July 14	1267	333	56	250
Elevator controller	J. H. Clark	464,452	Dec. 1	681	167	57	1264
Elevator controlling device	N. C. Bassett	451,231	Apr. 28	2478	612	55	503
Elevator controlling device	N. C. Bassett	456,463	July 21	1847	489	56	368
Elevator controlling device	C. E. Foster	464,278	Dec. 1	436	104	57	1218
Elevator controlling device	J. McAdams	460,675	Oct. 6	224	57	57	46
Elevator controlling device	G. H. Reynolds	456,121	July 14	1289	339	56	254
Elevator controlling device	G. H. Reynolds	456,122	July 14	1291	339	56	255
Elevator controlling device	G. H. Reynolds	456,123	July 14	1292	340	56	255
Elevator controlling device	G. H. Reynolds	458,917	Sept. 1	576	140	56	1176
Elevator controlling device	J. J. Seelar	446,717	Feb. 17	1966	490	54	914
Elevator controlling device	S. E. Stokes	453,450	June 2	440	113	55	1231
Elevator controlling device	W. H. Wells, Jr.	457,844	Aug. 18	1499	390	56	832
Elevator controlling device	W. H. Wells, Jr.	457,845	Aug. 18	1500	390	56	833
Elevator controlling mechanism	N. C. Bassett	458,555	Sept. 1	1	1	56	1065
Elevator controlling mechanism	N. C. Bassett	458,556	Sept. 1	2	1	56	1065
Elevator controlling mechanism	W. O. Wakefield	454,095	June 16	1377	359	55	1425
Elevator-door-operating device	J. Wallenstein	456,349	July 21	1653	437	56	333
Elevator-doors. Means for operating	W. N. Anderson	450,905	Apr. 21	1954	479	55	395
Elevator driving mechanism	H. J. Reedy	445,902	Feb. 3	633	155	54	636
Elevator-engine	J. Gibbins	454,012	June 9	1258	327	55	1396
Elevator-gate-operating device	A. C. Stewart	460,603	Oct. 6	88	24	57	19
Elevator-guard	A. Elliott	448,605	Mar. 17	2181	544	54	1550
Elevator-guard	H. D. Swift	456,641	July 28	2142	567	56	434
Elevator-indicator	R. G. Hourtney	465,022	Dec. 15	1599	407	57	1460
Elevator-indicator	C. Ludovici	455,947	July 14	1045	273	56	207
Elevator-indicator	E. Whitlock	446,907	Feb. 24	2299	572	54	988
Elevator mechanism	R. H. Aldrich	459,695	Sept. 15	1822	457	56	1434
Elevator-operating device	N. C. Bassett	453,955	June 9	1174	307	55	1380
Elevator-operating machine	N. C. Bassett	456,108	July 14	1269	333	56	250
Elevator-operating system. Electric	W. Baxter, Jr.	449,611	Mar. 31	3799	955	54	1872
Elevator safety-catch	J. W. Byram	452,096	May 12	1053	266	55	780
Elevator safety device	W. N. Anderson	455,148	June 30	3115	791	55	1769
Elevator safety device	J. Collier	451,399	Apr. 28	2729	677	55	553
Elevator safety device	A. Eichert	454,263	June 16	1618	424	55	1473
Elevator safety device	J. K. Johnson	460,874	Oct. 6	517	132	57	102
Elevator safety device	E. F. Moenning and K. A. W. Haeseler	458,765	Sept. 1	324	79	56	1127
Elevator safety device	H. H. Thayer	465,585	Dec. 22	2535	645	57	1646
Elevator safety device. Electric	N. P. Otis and R. C. Smith	458,977	Sept. 1	670	164	56	1196
Elevator-shafts. Device for operating doors to	L. W. Butler	462,200	Oct. 27	2674	670	57	534
Elevator shifting-ropes. Grip for	S. C. Swett	444,556	Jan. 13	910	236	54	189
Elevator shipper-ropes. Hand-hold for	H. Sanche	450,697	Apr. 21	1635	392	55	335
Elevator-signal	F. Andrews and R. H. Day	459,452	Sept. 15	1433	360	56	1360
Elevator-stop. Automatic	G. H. Haven	455,282	June 30	3346	845	55	1815
Elevator-valve controller	E. S. Matthews	450,965	Apr. 21	2055	506	55	414
Elevator-wells. Device for automatically closing doors to	J. C. Reed	452,415	May 19	1576	391	55	890
Elevator-wells. Device for operating doors to	J. B. Craig and T. W. Purcell	461,411	Oct. 13	1361	343	57	271
Elevator-wells. Device for operating gates to	W. H. Wheeler	460,788	Oct. 6	405	98	57	80
Elevators. Automatic door and lock for	A. Pontius	445,433	Jan. 27	2309	599	54	477
Elevators. Discharge-regulator for hydraulic	R. T. Crane	445,748	Feb. 3	383	98	54	589
Elevators. Electric controller for	W. Baxter, Jr.	463,615	Nov. 24	2234	589	57	1009
Elevators. Electrical indicator for	C. G. Armstrong	462,835	Nov. 10	980	254	57	749
Elevators. Hoisting-drum for	P. L. and A. A. Weimer	446,044	Feb. 10	875	213	54	690
Elevators. Means for controlling	G. H. Reynolds	456,124	July 14	1293	340	56	256
Elevators. Signaling device for	C. G. Armstrong	462,834	Nov. 10	976	253	57	749
Elevators with landing-switches only. System of operating electric	W. Baxter, Jr.	449,662	Apr. 7	21	5, 6	55	6
Ellipsograph	A. W. Bradley, Jr.	465,689	Dec. 22	2696	687	57	1676
Elliptic spring	P. N. French	457,266	Aug. 4	539	141	56	632
Elliptic spring	G. W. Morris	452,612	May 19	1889	475	55	947
Embalming-board	W. N. Clark	452,070	May 12	1003	253	55	772
Embalming-mixture	T. Holmes	450,017	Apr. 7	547	.....	55	106
Embossed and printed decorative materials for walls, &c. Means for making	E. S. Sears	454,667	June 23	2364	581	55	1600
Embossing and printing press	C. A. Lieb	452,016	May 12	885	227	55	754
Embossing designs on wood. Machine for	F. H. Hawkins	448,485	Mar. 17	1995	500	54	1515
Embossing-machine	F. Berner, Jr.	456,079	July 14	1231	323	56	242
Embossing-machine	F. Berner, Jr. (Reissue)	11,208	Dec. 8	1447	363	57	1423
Embossing-machine	E. Jaeck	456,724	July 28	2275	603	56	460
Embossing-machine. Hydraulic	A. Langerfeld	453,410	June 2	369	96	55	1216
Embossing or ornamenting wood, paper, &c. Machine for	G. Staber and H. Abbey	451,983	May 12	835	213	55	745
Embossing ornamental designs on wood or other material. Machine for	F. H. Hawkins	448,486	Mar. 17	1997	500	54	1516
Embossing paper, card-board, and like impressible materials	H. M. Kitchell	453,596	June 2	651	.....	55	1271
Embossing works in sheet metal. Machine for	S. W. Babbitt	454,149	June 16	1453	381	55	1440
Embroidered fabric	A. Meyer-Kreis	452,579	May 19	1838	461	55	936

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Embroidering-machine.....	E. and R. Cornely.....	461,737	Oct. 20	1940	{ 481 482 262 263	{ 57	385
Embroidering-machine.....	A. V. Deshayes.....	462,858	Nov. 10	1017	{ 1116 273	{ 57	757
Embroidering-machine.....	H. Hochreutener.....	446,184	Feb. 10	1116	273	54	733
Embroidering-machine.....	H. Hochreutener.....	454,737	June 23	2366	608	55	1621
Embroidering-machine.....	J. Irish.....	456,573	July 28	2025	536	56	411
Embroidering-machine.....	J. J. Klaus.....	462,051	Oct. 27	2440	605	57	490
Embroidering-machine.....	L. Legrand.....	466,248	Dec. 29	3592	{ 918 919 920	{ 57	1859
Embroidering-machine.....	L. L. Mick, M. Kursteiner, and E. Janenz.....	451,831	May 5	586	145	55	691
Embroidering-machine.....	J. Ruckdeschel.....	458,040	Aug. 18	1824	476	56	893
Embroidering-machines. Fabric-holding frame for.....	J. Anderegg.....	464,668	Dec. 8	1017	254	57	1339
Embroidering-machines. Fabric-holding frame for.....	J. J. Ebnetter.....	457,814	Aug. 18	1447	376	56	823
Embroidering-machines. Tambour-frame for.....	H. Hochreutener.....	462,486	Nov. 3	418	102	57	630
Embroidery-seam.....	E. and R. Cornely.....	461,738	Oct. 20	1943	482	57	385
Emery-grinder.....	A. Cameron.....	462,394	Nov. 3	287	70. 71	57	605
Emery-wheel dresser. Revolving.....	E. C. Palmer and S. G. Ryder.....	448,787	Mar. 24	2483	621	54	1616
Enamel, &c., off plates. Machine for brushing.....	H. Claus.....	465,462	Dec. 22	2321	596	57	1605
Enameling oven or kiln.....	D. O. Paige.....	457,821	Aug. 18	1460	{ 380 381	{ 56	825
Enameling-ovens. Device for charging and discharging.....	A. H. Franck.....	463,503	Nov. 17	2030	532	57	961
Enameling-powders. Machinery for distributing.....	W. Walters and C. A. Smith.....	454,312	June 16	1693	442	55	1488
End-gate.....	N. A. Cruzan.....	451,916	May 12	736	185	55	725
End-gate.....	W. A. Hall.....	457,274	Aug. 4	551	144	56	635
End-gate.....	J. A. Lind and P. E. Anderson.....	452,905	May 26	2357	596	55	1046
End-gate.....	J. P. Marshall.....	445,678	Feb. 3	274	72	54	566
End-gate.....	J. McFarland.....	448,249	Mar. 17	1590	406	54	1439
End-gate and shoveling-board. Combined.....	T. G. Mandt.....	459,156	Sept. 8	963	234	56	1260
End-gate fastening.....	J. J. Cook.....	444,313	Jan. 6	521	136	54	104
End-gate. Wagon.....	S. H. and D. J. Bass.....	455,152	June 30	3120	792	55	1770
End-gate. Wagon.....	D. O. Duncan.....	460,851	Oct. 6	484	123	57	96
End-gate. Wagon.....	G. Evans.....	445,167	Jan. 27	1918	495	54	399
End-gate. Wagon.....	W. C. Foster.....	452,436	May 19	1612	400	55	896
End-gate. Wagon.....	I. W. and W. A. Harlan.....	463,276	Nov. 17	1640	439	57	894
End-gate. Wagon.....	B. S. Kearney.....	446,232	Feb. 10	1189	291	54	747
End-gate. Wagon.....	R. Y. Kessler.....	458,108	Aug. 18	1923	500	56	914
End-gate. Wagon.....	G. S. Majors.....	460,052	Sept. 22	2377	594	56	1545
End-gate. Wagon.....	J. J. Marco.....	459,194	Sept. 8	1021	249	56	1270
End-gate. Wagon.....	T. G. Northwall.....	458,109	Aug. 18	1924	500	56	914
End-gate. Wagon.....	F. C. Ridenour.....	465,728	Dec. 22	2741	699	57	1686
End-gate. Wagon.....	I. Van Winkle.....	455,370	July 7	110	31	56	25
Engine: See Angle-engine. Gas or gasoline engine. Auxiliary engine. Gas or oil motor engine. Blowing-engine. Gas or vapor engine. Boring-engine. Heat-engine. Carding-engine. Hot-air motor-engine. Compound engine. Hydrocarbon-engine. Dental engine. Hydropneumatic engine. Direct-acting engine. Jordan engine. Double-acting engine. Locomotive-engine. Double scotch-yoke engine. Multiple expansion-engine. Duplex engine. Piston-engine. Dusting-engine. Pulp refining and dressing engine. Electric-motor reciprocating engine. Pumping-engine. Electro-magnetic reciprocating engine. Rotary engine. Elevator-engine. Rotary steam-engine. Ether-engine. Steam-engine. Explosive-engine. Traction-engine. Fire-engine. Tram-engine. Gas-engine. Vacuum-engine. Gas and hydrocarbon motive engine. Vapor-engine. Gas-motor engine. Wind-engine.							
Engine.....	A. J. Clark.....	453,901	June 9	1101	288	55	1365
Engine.....	J. V. Rice, Jr.....	459,884	Sept. 22	2131	{ 535 536	{ 56	1500
Engine.....	H. Thibault and C. D. Harsin.....	459,885	Sept. 22	2134	536	56	1501
Engine.....	G. White.....	454,192	June 16	1516	398	55	1453
Engine attachment.....	D. R. and F. M. Woodsum.....	445,943	Feb. 3	698	170	64	449
Engine-bearing.....	S. S. Babbitt and R. W. Bailey.....	456,921	July 28	2619	687	56	522
Engine connection. Steam.....	A. E. Parsons.....	454,814	June 23	2497	642	55	1644
Engine cross-head.....	A. S. Vogt.....	450,630	Apr. 21	1842	448	55	373
Engine cross-head. Steam.....	W. S. Hughes.....	458,054	Aug. 18	1843	481	56	897
Engine cross-head. Steam.....	L. A. Le Mieux.....	465,671	Dec. 22	2669	681	57	1671
Engine cut-off gear. Steam.....	C. C. Worthington.....	451,147	Apr. 28	2328	{ 578 579	{ 55	477
Engine dash-pot. Steam.....	H. Haberlin.....	465,797	Dec. 22	2846	729	57	1707
Engine-indicator for steam-vessels.....	W. E. Hadlock.....	453,696	June 9	820	208	55	1311
Engine indicator. Steam.....	F. Sargent.....	450,731	Apr. 21	1675	404	55	342
Engine indicators. Device for operating steam.....	J. Gill.....	455,999	July 14	1122	294	56	231
Engine indicators. Gear for steam.....	M. S. Cabell.....	458,530	Aug. 25	2620	638	56	1051
Engine-operating mechanism. Steam.....	S. H. Pitkin.....	450,526	Apr. 14	1333	327	55	202
Engine piston. Steam.....	J. H. Blessing.....	451,850	May 5	610	151	55	695
Engine reversing-gear.....	J. Barnes.....	444,971	Jan. 20	1610	412	54	330
Engine reversing-gear. Steam.....	C. M. Farrar.....	446,992	Feb. 24	2425	603	54	1011

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Engine reversing-gear. Steam.....	C. Swan.....	446,746	Feb. 17	2014	502	54	923
Engine-stopping device.....	W. H. Kilbourn.....	457,837	Aug. 18	1486	387	56	830
Engine-tender scoops. Mechanism for operating automatically.....	C. N. Devinney and S. Hafner.....	463,109	Nov. 10	1416	366	57	835
Engines. Accumulator for direct-acting.....	C. C. Worthington.....	455,935	July 14	1020	267 268	56	204
Engines. Apparatus for controlling the exhaust for condensing.....	L. I. Seymour.....	463,874	Nov. 24	2643	689	57	1085
Engines. Automatic shut-off for.....	P. Davidson.....	464,858	Dec. 8	1307	327	57	1394
Engines. Converting device for steam.....	P. W. Leffler.....	449,162	Mar. 31	3032	771 772	54	1734
Engines. Cross-head block for.....	N. Lombard.....	450,632	Apr. 21	1539	370	55	317
Engines. Cut-off gear for.....	N. Chandler.....	447,603	Mar. 3	542	134	54	1219
Engines. Cut-off gear for steam.....	K. E. Vesterdahl.....	459,568	Sept. 15	1616	405 406 323 324	56	1394
Engines. Cut-off mechanism for steam.....	E. J. Chapin.....	447,773	Jan. 13	1245	323 324	54	251
Engines. Dash-pot for steam.....	H. Haberlin.....	449,878	Apr. 7	351	89	55	70
Engines. Electric pole in gas or vapor explosive.....	F. E. Tremper and J. W. Eisenhuth.....	454,238	June 16	1582	416	55	1466
Engines. Gage for aligning.....	G. J. Hunt and T. F. McKechnie.....	458,055	Aug. 18	1844	481	56	897
Engines. Governing the movements of pistons in steam.....	E. Hill.....	446,183	Feb. 10	1113	272	54	732
Engines. Grease-separator for steam.....	L. Hussey and E. McCann.....	447,327	Mar. 3	71	19, 20	54	1131
Engines. Igniting device for gas.....	S. Lawson.....	462,492	Nov. 3	425	104	57	632
Engines. Journal-box for steam.....	W. O. Wehber.....	449,440	Apr. 7	303	79	55	59
Engines. Link-motion for compound.....	W. E. Good and C. O. Lindroth.....	446,844	Feb. 17	1557	382 383	54	833
Engines. Machine for boring the cylinders of steam.....	G. H. Corliss.....	450,401	Apr. 14	1154	281 282	55	227
Engines. Machine for finishing side flanges of cylinders of steam.....	G. H. Corliss.....	450,399	Apr. 14	1150	281	55	226
Engines. Machine for finishing the ends of cylinders of steam.....	G. H. Corliss.....	450,398	Apr. 14	1147	280	55	225
Engines. Magneto-electric ignitor for combustible vapor.....	L. G. Woolley.....	464,347	Dec. 1	539	131	57	1236
Engines. Means for governing or regulating the action of gas or other like explosive.....	E. Delamare-Deboutteville and L. Malandin.....	448,136	Mar. 10	1399	357	54	1393
Engines. Means for supplying lubricating-oil to moving parts of.....	D. R. Stiles.....	446,797	Feb. 17	2091	521	54	940
Engines. Means for supplying oil to moving parts of.....	D. R. Stiles.....	446,798	Feb. 17	2092	521	54	946
Engines. Method of and apparatus for supplying motive fluid to.....	B. Brazelle.....	465,014	Dec. 15	1584	404	57	1457
Engines off the dead-center. Device for throwing the cranks of.....	J. W. Freeman.....	450,009	Apr. 7	536	134	55	104
Engines. Oil-separator for steam.....	J. H. Eickershoff.....	453,602	June 2	661	170	55	1273
Engines. Operating reciprocating electric.....	C. J. Van Depoele.....	451,786	May 5	523	129	55	677
Engines. Reheater for compound.....	F. W. Dean.....	457,078	Aug. 4	232	59	56	577
Engines. Scotch yoke for steam.....	F. H. Laforge and H. J. Barker.....	453,427	June 2	403	104	55	1223
Engines. System of reciprocating electric.....	C. J. Van Depoele.....	458,954	Sept. 1	627	155	56	1187
Engines. System of supplying current to reciprocating electric.....	C. J. Van Depoele.....	458,870	Sept. 1	509	124	56	1161
Engines. Treating the cylinders of steam.....	G. H. Corliss.....	450,397	Apr. 14	1142	280	55	225
Engineer's instrument.....	J. Paoli.....	453,159	May 26	2778	699	55	1127
Engineer's instrument.....	J. Paoli.....	453,160	May 26	2779	699	55	1127
Engineer's order bulletin-board.....	C. W. Kemp.....	444,211	Jan. 6	375	93	54	75
Engineer's slide-rule.....	W. Cox.....	460,930	Oct. 6	609	155	57	118
Engineer's transit.....	J. Paoli.....	453,158	May 26	2775	698	55	1127
Engineer's wrench.....	D. H. Carpenter.....	463,137	Nov. 17	1460	378	57	852
Engraver's vise.....	W. Faustmann.....	461,216	Oct. 13	1048	266	57	209
Engraving-block.....	T. H. Wicks.....	465,688	Dec. 22	2694	687	57	1676
Engraving-machine.....	C. H. and C. H. Field, Jr.....	461,745	Oct. 20	1950	484	57	387
Engraving-machine.....	J. C. Parmelee.....	454,063	June 16	1326	346 347	55	1417
Engraving-machine.....	F. W. Sabel.....	460,762	Oct. 6	362	89, 90	57	71
Engraving-machine.....	C. Schraubstadter, Jr., and C. R. Schilling.....	454,774	June 23	2419	621	55	1632
Engraving-machine. Pantograph.....	J. Hope.....	462,874	Nov. 10	1042	270	57	761
Engraving-machine. Pantograph.....	G. Moulton.....	445,321	Jan. 27	2143	554 555	54	444
Engraving-machine. Pantographic.....	W. Goudie.....	460,931	Oct. 6	611	155	57	119
Enlarging-camera.....	C. R. Jenne.....	463,630	Nov. 24	2261	595 596	57	1014
Entrails. Machine for cutting and cleaning.....	L. M. Hoffmann.....	461,804	Oct. 20	2059	508	57	407
Envelope.....	R. W. Bainbridge.....	444,092	Jan. 6	176	44	54	37
Envelope.....	B. G. Button.....	444,045	Jan. 6	99	25	54	23
Envelope.....	J. P. Harrison and J. L. Waring.....	444,979	Jan. 20	1619	414	54	332
Envelope.....	E. Morgan.....	460,397	Sept. 29	2910	727	56	1655
Envelope.....	J. H. Parkhurst.....	453,892	June 9	1091	285 286	55	1363
Envelope.....	H. F. Post.....	453,726	June 9	863	224	55	1319
Envelope.....	H. A. J. Rieckert.....	444,651	Jan. 13	1043	271	54	214
Envelope.....	A. Thacher and B. D. Gifford.....	461,000	Oct. 13	713	184	57	146
Envelope.....	W. H. Theobald.....	453,252	June 2	114	31	55	1170
Envelope.....	W. E. Thomas.....	454,237	June 16	1580	416	55	1466
Envelope.....	G. W. Trauger.....	465,788	Dec. 22	2635	726	57	1705
Envelope.....	J. L. Vattier.....	464,208	Dec. 1	318	77	57	1193
Envelope.....	G. N. Walter.....	446,723	Feb. 17	1980	493	54	916
Envelope.....	J. West.....	461,734	Oct. 20	1921	475	57	381
Envelope and display-stand. Combined.....	A. M. Costella.....	457,500	Aug. 11	970	247	56	721
Envelope and stamp moistener.....	C. Holyland.....	464,502	Dec. 8	761	186	57	1289
Envelope-blanks. Machine for gumming and feeding.....	S. W. Baleh.....	460,065	Sept. 22	2394	599	56	1518
Envelope-book.....	M. M. Hitt.....	460,472	Sept. 29	3018	756	56	1675
Envelope-fastener.....	H. Goodacre.....	464,068	Dec. 1	95	24	57	1155

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Envelope-fastener.....	G. H. Randall.....	452,651	May 19	1951	490	55	959
Envelope-fastener.....	G. H. Randall.....	461,143	Oct. 13	906	235	57	182
Envelope-fastener.....	C. H. Voll.....	444,932	Jan. 20	1549	396 397	54	318
Envelope-folding machine.....	C. W. F. Thode.....	462,746	Nov. 10	827	217 218	57	720
Envelope for photographs, &c.....	H. C. Lavette.....	460,264	Sept. 29	2701	673	56	1616
Envelope-holder.....	L. A. Farnsworth.....	456,947	Aug. 4	47	10	56	541
Envelope-machine.....	R. Anderson.....	458,296	Aug. 25	2242	548	56	979
Envelope-machines. Folder and presser for.....	L. P. Bonvier.....	453,436	June 2	415	108	55	1225
Envelope-machine.....	J. Dennis, W. S. Metcalfe, and J. A. Sherman.....	458,691	Sept. 1	224	53	56	1108
Envelope-machine.....	J. Dennis, W. S. Metcalfe, and J. A. Sherman.....	462,210	Oct. 27	2692	677 678 679	57	537
Envelope-machine.....	R. W. Pittman.....	452,731	May 19	2077	523	55	984
Envelope-machine.....	E. Ran.....	446,124	Feb. 10	1002	246 247 248 354 355 356 357 358 359	54	715
Envelope-machine.....	F. H. Richards.....	444,852	Jan. 20	1369	360 361 362 363 364 365	54	284
Envelope-machine.....	W. D. Slater.....	463,458	Nov. 17	1964	513	57	949
Envelope-machine.....	W. D. Slater.....	463,459	Nov. 17	1966	513	57	949
Envelope-machine.....	H. D. and D. W. Swift.....	456,122	Dec. 29	3400	871	57	1823
Envelope-machine.....	A. D. Tyrrel.....	452,325	May 12	1424	352 353	55	851
Envelope-machines. Drier for.....	J. Dennis, W. S. Metcalfe, and J. A. Sherman.....	462,208	Oct. 27	2689	676	57	537
Envelope-machines. Drying mechanism for.....	A. A. Rheutan.....	451,412	Apr. 28	2752	681	55	557
Envelope-machines. Folder and presser for.....	A. A. Rheutan.....	453,389	June 2	318	83	55	1207
Envelope-machines. Folder and presser for.....	A. A. Rheutan.....	453,390	June 2	319	84	55	1208
Envelope-machines. Gunning mechanism for.....	J. Dennis, W. S. Metcalfe, and J. A. Sherman.....	462,209	Oct. 27	2690	677	57	537
Envelope making and printing machine.....	J. Ball.....	449,894	Apr. 7	371	94, 95	55	73
Envelope making and printing machine.....	J. Ball.....	463,981	Nov. 24	2806	728	57	1116
Envelope-making machine.....	J. Dennis, W. S. Metcalfe, and J. A. Sherman.....	463,399	Nov. 17	1892	493	57	933
Envelope-making machine.....	J. R. McDonald and T. Stebbins.....	464,984	Dec. 15	1511	379 380 381 382 383	57	1443
Envelope-making machine.....	F. T. Nicholson.....	448,250	Mar. 17	1591	406 407	54	1439
Envelope moistener and closer.....	D. Coyle.....	447,809	Mar. 10	881	220	54	1292
Envelope moistener and sealer.....	E. Ryder.....	465,498	Dec. 22	2380	609	57	1617
Envelope-moistening and stamp-attaching device.....	W. E. Brown.....	452,661	May 19	1966	493	55	962
Envelope-opener.....	W. J. Pucket.....	459,461	Sept. 15	1446	363	56	1363
Envelope-opener.....	L. H. Richardson.....	460,393	Oct. 13	703	181	57	144
Envelope. Remailing sample.....	O. A. De Long.....	458,117	Aug. 18	1936	503	56	916
Envelope. Safety.....	J. Malone.....	463,906	Nov. 24	2686	699	57	1093
Envelopes. Device for moistening the gum on.....	E. E. Kingsley.....	449,480	Mar. 31	3610	909	54	1837
Equatorial mounting.....	G. N. Slegemüller.....	448,081	Mar. 10	1321	338	54	1377
Eraser.....	W. E. Simonds.....	445,092	Jan. 20	1786	459	54	365
Eraser and pencil-sharpener. Combined.....	G. W. Washburn.....	460,608	Oct. 6	93	26	57	21
Eraser. Chemical.....	C. R. Macomber and E. V. Scribner.....	464,509	Dec. 8	776	190	57	1293
Eraser. Ink.....	W. H. Robinson.....	450,378	Apr. 14	1121	274	55	220
Eraser. Pneumatic ink.....	C. L. Burdick.....	463,613	Nov. 24	2240	590	57	1010
Eraser. Tube.....	C. Hanimann.....	447,873	Mar. 10	990	250	54	1312
Erasive-rubber holder.....	L. W. Faber.....	461,205	Oct. 13	1024	260	57	203
Ether-engine.....	P. de Susiné.....	459,317	Sept. 8	1202	293	56	1307
Ether. Guaiacol.....	J. Bongartz.....	453,035	May 26	2570	511	55	1088
Evaporating and cooling apparatus.....	E. Theisen.....	444,945	Jan. 20	1568	402	54	322
Evaporating apparatus.....	T. Gaunt.....	445,776	Feb. 3	436	108	54	597
Evaporating apparatus.....	T. Gaunt.....	447,817	Mar. 10	892	223	54	1294
Evaporating apparatus.....	E. Theisen.....	447,210	Feb. 24	2812	696	54	1084
Evaporating apparatus.....	E. Theisen.....	463,466	Nov. 17	1983	516 517 518 519	57	952
Evaporating apparatus.....	W. Vennloth.....	464,166	Dec. 1	241	59	57	1181
Evaporating apparatus. Brine.....	L. Bell.....	459,475	Sept. 15	1467	369	56	1366
Evaporating apparatus. Continuous.....	O. Schulz.....	463,338	Nov. 17	1780	467 468	57	911
Evaporating apparatus. Multiple-effect.....	T. Gaunt.....	447,816	Mar. 10	890	222 223	54	1293
Evaporating apparatus. Vacuum.....	H. Burgess.....	451,751	May 5	475	118	55	668
Evaporating apparatus. Vacuum.....	S. Pick.....	464,389	Dec. 1	594	146 147	57	1247
Evaporating liquors containing salt. Apparatus for.....	S. Pick.....	456,499	July 21	1901	503	56	379
Evaporating naphtha. Apparatus for.....	J. W. Evans.....	449,215	Mar. 31	3138	791 792	54	1750
Evaporating-pan.....	J. M. Duncan.....	460,702	Oct. 6	280	68	57	55
Evaporating sea or other water. Apparatus for.....	D. A. Quiggin.....	448,542	Mar. 17	2069	518	54	1531

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Evaporating-sirup	L. R. Tabor	457,097	Aug. 4	257	67	56	562
Evaporator							
See Fruit-evaporator.							
Evaporator	G. H. Simpson	455,125	June 30	3071	781	55	1762
Evaporator	M. Swenson	457,234	Aug. 4	472	121	56	622
Evaporator or sirup-pan	G. W. Rodgers	445,266	Jan. 27	2072	534	54	428
Excavating apparatus	J. S. Whitcomb	452,492	May 19	1703	429	55	911
Excavating-machine	D. Murphy	460,512	Sept. 29	3095	{ 773 774 }	56	1691
Excavator	D. E. Horton	451,484	May 5	59	14	55	590
Excavator	W. W. Lemmon	464,507	Dec. 8	771	{ 189 190 }	57	1291
Excavator	J. H. L. Tuck	465,738	Dec. 22	2756	704	57	1690
Excavator and wrecker	J. Ziegler	465,037	Dec. 15	1624	{ 413 414 }	57	1464
Excelsior-cutting machine	J. Pratt	463,200	Nov. 17	1561	{ 406 407 }	57	870
Excelsior-cutting machine	C. G. Smith	447,846	Mar. 10	943	{ 236 237 }	54	1303
Excelsior-machine	J. B. Johnson	452,553	May 19	1801	453	55	929
Excelsior-machine	W. S. Minor	463,530	Nov. 17	2072	545	57	969
Excelsior-machine	V. L. Williams	449,097	Mar. 24	2949	747	54	1706
Exercising apparatus	W. L. Coop	445,726	Feb. 3	345	90	54	581
Exercising apparatus	W. L. Coop	457,602	Aug. 11	1113	284	56	749
Exercising apparatus	J. E. Dowd	457,400	Aug. 11	797	205	56	689
Exercising apparatus	L. Koeb	450,769	Apr. 21	1731	419	55	354
Exercising apparatus	F. Medart	448,353	Mar. 17	1789	452	54	1477
Exercising apparatus	G. S. Sauborn	444,674	Jan. 13	1086	281	54	223
Exercising apparatus	G. Zauder	458,382	Aug. 25	2387	582	56	1006
Exercising apparatus. Neck	T. Peterson	450,188	Apr. 14	791	200	55	161
Exercising-machine	F. G. Gollon	459,282	Sept. 8	1155	281	56	1298
Exercising-machine	A. I. Thayer	448,305	Mar. 17	1706	432	54	1461
Exercising-machine. Electrical	J. B. Gardiner	444,881	Jan. 20	1451	377	54	300
Exercising-shot	T. Peterson	450,759	Apr. 21	1715	415	55	351
Exhaust-head and smoke-cleaner. Combined	M. F. Eaton	453,143	May 26	2754	694	55	1123
Exhaust mechanism	F. L. McGahan	462,272	Nov. 3	83	20	57	567
Exhauster and ventilator	J. Barnes	454,836	June 30	2536	653	55	1659
Exhibiting rack. Merchandise	W. High	462,082	Oct. 27	2480	616	57	498
Exhibition purposes. Device for	S. R. Ellis	443,991	Jan. 6	5	2	54	4
Exhibition-rack	H. A. Buchholz	454,328	June 16	1716	448	55	1492
Exhibitor	W. R. Garner	461,869	Oct. 27	2162	532	57	426
Exhibitor. Automatic	W. H. Rodgers	445,456	Jan. 27	2338	608	54	482
Exhibitor-bedstead	H. Albin and A. K. Erdman	449,654	Apr. 7	1	1	55	3
Exhibitor for shade-fabrics, wall-papers, &c. Cabinet	B. Handforth	444,701	Jan. 13	1123	290	54	230
Exhibitor. Goods	N. E. Otto	453,912	June 9	1119	293	55	1369
Exhibitor. Sample or picture	H. Frericks	447,815	Mar. 10	889	222	54	1293
Expanding stopper	B. Haigh	456,257	July 21	1514	401	56	306
Expansion-bit	C. Beauchépe	458,091	Aug. 18	1900	494	56	909
Expansion-bolt	R. McGrath	456,588	July 28	2053	543	56	416
Expansion-drill or boring-tool	C. P. Jennings	457,536	Aug. 11	1007	{ 257 258 }	56	728
Expansion-fastener	J. Thinnus	462,601	Nov. 3	599	147	57	666
Explosive	P. Ward and E. M. Gregory	454,239	June 16	1583	.....	55	1467
Explosive and making the same	J. M. Pollard	463,769	Nov. 24	2471	.....	57	1053
Explosive and making the same. Celluloidal	A. Nobel	456,508	July 21	1917	.....	56	382
Explosive compound	C. Lamm	455,217	June 30	3226	.....	55	1792
Explosive-engine	A. Harding	452,520	May 19	1750	440	55	920
Explosives. Apparatus for making dope for	J. C. Schrader	450,591	Apr. 14	1418	{ 349 350 }	55	279
Explosives. Process of and apparatus for making	H. S. Maxim	449,687	Apr. 7	58	15	55	13
Extensible brace for excavations	W. J. Dunn	456,649	July 28	2155	571	56	437
Extension-bracket	D. F. Dalton	455,707	July 7	666	176	56	129
Extension-clamp	J. J. Tanner	444,510	Jan. 13	839	218	54	175
Extension-screen. Adjustable	A. Doenitz	457,639	Aug. 11	1164	298	56	759
Extension-table	F. P. Cobham	464,114	Dec. 1	160	40	57	1168
Extension-table	F. P. Cobham	464,115	Dec. 1	161	40	57	1168
Extension-table	J. Conch	465,053	Dec. 15	1651	{ 420 421 }	57	1468
Extension-table	C. M. Herr	457,901	Aug. 18	1596	{ 415 416 }	56	849
Extension-table	G. Magnussan	451,597	May 5	229	55	55	623
Extension-table	W. H. Pickett	457,429	Aug. 11	836	{ 216 217 }	56	696
Extension-table	W. H. Pickett	457,443	Aug. 11	859	{ 222 223 }	56	701
Extension-table	E. H. W. Stahlhuth	464,528	Dec. 8	808	197	57	1298
Extension-table slide	C. F. Hall	451,820	May 5	574	141	55	688
Extractor:							
See Bung-extractor.	Nail-extractor.						
Butter-extractor.	Oil and grease extractor.						
Corn-extractor.	Packing-extractor.						
Honey-extractor.	Pen-extractor.						
Jelly-extractor.	Railway-spike extractor.						
Juice-extractor.	Spike-extractor.						
Lemon-juice ex-tractor.	Stump-extractor.						
Extracts. Apparatus for making	S. C. Thrall	449,603	Mar. 31	3790	951	54	1870
Eye. Device for removing foreign bodies from the	D. Y. Hallock	462,910	Nov. 10	1103	287	57	773
Eye-shade and head-shield. Combined	J. Ahlstrom	452,155	May 12	1151	291	55	798
Eyeglass-case	J. Casey	460,330	Sept. 29	2813	700	56	1637
Eyeglass-holder	S. B. Bacon	455,425	July 7	205	53	56	42
Eyeglass-holder	C. E. Carpenter	452,747	May 19	2109	531	55	990
Eyeglasses	G. Andross	452,824	May 26	2227	{ 558 559 }	55	1022

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Eyeglasses	W. W. Bissell	465,406	Dec. 15	2237	573	57	1579
Eyeglasses	B. A. Capehart	457,253	Aug. 4	511	{ 134 135 }	56	628
Eyeglasses	E. S. Fowler	464,456	Dec. 1	688	168	57	1265
Eyeglasses	E. B. Fox and D. V. Brown	452,351	May 12	1470	364	55	859
Eyeglasses	H. E. Kirstein	444,362	Jan. 6	591	152	54	117
Eyeglasses	H. E. Kirstein and E. De Celles	465,821	Dec. 22	2885	738	57	1715
Eyeglasses	L. Rubel	459,234	Sept. 8	1077	263	56	1281
Eyeglasses	W. C. Westaway	449,605	Mar. 31	3793	952	54	1871
Eyelet-setting machine	T. R. Hyde, Jr.	452,139	May 12	1122	285	55	793
Eyeleting-machine	F. Bean	451,361	Apr. 28	2676	663	55	543
Eyeleting-machine	E. D. Gaines	453,182	June 2	8	2	55	1150
Eyeleting-machine	G. Giglio	449,795	Apr. 7	239	60	55	48
Fabric:							
<i>See</i> Carpet fabric.	Embroidered fabric.						
Composition fabric.	Knit fabric.						
Cut fabric.	Metallic fabric.						
Elastic or corded fabric.	Wire fabric.						
Elastic woven fabric.	Woven fabric.						
Fabric	W. M. Morris	453,345	June 2	258	-----	55	1197
Fabric-displaying device	C. E. Goodspeed	455,712	July 7	673	177	56	130
Fabric holding and sewing apparatus	R. M. Hunter	460,505	Sept. 29	3079	771	56	1686
Fabric holding and sewing apparatus	R. M. Hunter	460,506	Sept. 29	3082	772	56	1687
Fabric holding and sewing apparatus	R. M. Hunter	460,507	Sept. 29	3085	772	56	1688
Fabric holding and sewing apparatus	R. M. Hunter	460,508	Sept. 29	3087	772	56	1689
Fabric holding and sewing machine	L. Onderdonk	462,729	Nov. 10	805	210	57	715
Fabric-holding frame	M. H. Rumpf	464,442	Dec. 1	668	164	57	1262
Fabric-stretching frame	S. Hough	454,134	June 16	1426	374	55	1436
Fabric-turfing implement	M. F. Connett	463,753	Nov. 24	2450	641	57	1049
Fabric-turfing implement	V. Fernandez	456,805	July 28	2417	637	56	485
Fabric-turfing implement	D. Lewis and F. L. Generelly	444,545	Jan. 13	891	232	54	185
Fabric winding and stretching apparatus	H. Force	461,954	Oct. 27	2306	{ 571 572 }	57	464
Fabrics. Apparatus employed in the cutting of weft pile	O. Drey	445,620	Feb. 3	161	43	54	543
Fabrics for ornamentation. Treating	G. Glock	459,066	Sept. 8	818	198	56	1231
Fabrics. Frame for holding and stretching	C. F. Flos	451,814	May 5	562	139	55	686
Fabrics. Machine for brushing	S. G. Hall	463,896	Nov. 24	2673	{ 696 697 53 54 55 56 }	57	1091
Fabrics. Machine for cutting the pile of weft pile. {	C. W. and T. B. Keighley and W. Netherwood. {	462,356	Nov. 3	220	{ 571 572 53 54 55 56 }	57	593
Fabrics. Ornamenting nap or pile	R. Lehmann	462,979	Nov. 10	1210	{ 315 316 }	57	794
Fabrics. Seam for	C. McNeil	466,139	Dec. 29	3435	879	57	1830
Facing-slip and label holder	T. W. Gaines, Jr.	454,341	June 16	1734	451	55	1495
Fagot-making machine	J. M. Sissons and W. S. Mayo	458,321	Aug. 25	2278	{ 557 558 }	56	986
Fan	W. H. Ames and M. Grier	449,025	Mar. 24	2842	723	54	1685
Fan	F. M. La Boiteaux	451,873	May 5	649	163	55	702
Fan	M. H. Rison	458,068	Aug. 18	1865	486	56	901
Fan attachment	A. Neumann	465,284	Dec. 15	2036	520	57	1340
Fan attachment	G. S. Nickum	464,584	Feb. 17	1766	436	54	875
Fan attachment for doorways	S. H. Rapp	446,333	Dec. 1	517	125	57	1232
Fan. Automatic	R. H. L. Arringdale	463,089	Nov. 10	1374	355	57	827
Fan. Automatic	T. R. Evans	446,204	Feb. 10	1145	280	54	738
Fan. Centrifugal	N. Chandler	445,043	Jan. 20	1721	443	54	352
Fan. Electric	P. Diehl and E. H. Bennett, Jr.	465,360	Dec. 15	2172	{ 555 556 557 }	57	1565
Fan. Electric	P. Diehl and E. H. Bennett, Jr.	465,361	Dec. 15	2173	{ 556 557 }	57	1566
Fan. Electric hand	W. B. Luce	457,127	Aug. 4	294	77	56	589
Fan. Fly	G. W. Slawson	445,630	Feb. 3	177	46	54	546
Fan for sewing-machines	M. Kennedy	460,233	Sept. 29	2653	661	56	1607
Fan-motor	I. Silverstein and M. Savelson	453,921	June 9	1129	{ 295 296 }	55	1371
Fan. Rotary	R. Godeffroy	450,148	Apr. 14	739	186	55	150
Fans. Attachment for exhaust or other	J. M. Seymour, Jr.	461,051	Oct. 13	784	200	57	158
Fans. Clutch for rotary	S. D. Shepperd	449,888	Apr. 7	364	92	55	72
Fanning-machine	J. T. Wallace and W. D. Holleman	453,453	June 2	443	114	55	1232
Fanning-mill	T. M. Bales	453,532	June 2	556	142	55	1252
Fanning-mill	B. S. Constant	458,843	Sept. 1	458	110	56	1153
Fanning-mill	J. Pelzer and J. Werel	446,365	Feb. 10	1414	347	54	793
Fanning-mill	J. S. Shafer	448,809	Mar. 24	2515	630	54	1623
Fanning-mill	S. L. and W. C. Wattring	450,855	Apr. 21	1882	461	55	381
Fanning-mill attachment	J. Herson	451,670	May 5	350	86	55	645
Fare-book. Railway	S. F. Stevens	448,688	Mar. 24	2323	{ 582 583 }	54	1586
Fare-box	J. L. Kail	455,881	July 14	945	247	56	190
Fare-box	T. Mangan and J. P. Buckley	457,545	Aug. 11	1021	{ 262 263 }	56	731
Fare-card for use at ferries	A. M. Lynes	452,497	May 19	1713	331	55	913
Fare-collector	M. D. Greengard and F. Harris	444,882	Jan. 20	1456	377	54	301
Fare receiver and register	L. Erlich	462,114	Oct. 27	2543	632	57	509
Fare-receiver. Portable	M. H. Allison	451,611	May 5	250	60	55	627
Fare-recording register	J. Dane, Jr.	443,988	Jan. 6	2	1	54	3
Fare-recording system. Electric	B. S. Molyneau	464,513	Dec. 8	783	192	57	1294
Fare-register	J. T. Cowley	455,276	June 30	3317	{ 839 840 841 842 }	55	1809
Fare-register	L. C. De Sloovere	454,902	June 30	2652	680	55	1681

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Fare-register.....	L. Ehrlich and J. A. Keyes.....	453,884	June 9	1080	{ 282 283	{ 55	1361
Fare-register.....	S. E. Heskins.....	450,936	Apr. 21	1989	{ 489	{ 55	402
Fare-register.....	B. W. Jeffery and G. F. Giering.....	459,895	Sept. 22	2146	{ 539 540	{ 56	1503
Fare-register.....	T. B. Lee.....	445,669	Feb. 3	244	{ 66 463	{ 54	560
Fare-register.....	J. W. Meaker.....	454,370	June 16	1779	{ 464 465	{ 55	1503
Fare-register.....	C. A. Neuert.....	455,050	June 30	2940	{ 748 749 677	{ 55	1736
Fare-register. Cab.....	W. Pigott.....	456,905	July 28	2577	{ 678 679 680	{ 56	514
Fare-register for vehicles.....	R. de Sainte-Marie.....	452,123	May 12	1096	{ 279 280	{ 55	788
Fare-registering apparatus.....	F. D. Deneker and F. Erhardt.....	450,602	Apr. 14	1441	{ 354	{ 55	283
Fares by omnibuses, &c. Apparatus for recording ..	A. Carrara.....	445,042	Jan. 20	1719	{ 442 443	{ 54	351
Farm-gate.....	H. A. Benefiel.....	451,886	May 5	667	{ 169	{ 55	705
Farm-gate.....	A. L. Gericke.....	458,248	Aug. 25	2151	{ 527	{ 56	963
Farm-gate.....	C. C. Helter.....	453,188	June 2	16	{ 5	{ 55	1152
Farm-gate.....	L. J. Johnston.....	449,221	Mar. 31	3147	{ 793	{ 54	1751
Farm-gate.....	W. A. Jones.....	461,220	Oct. 13	1055	{ 267	{ 57	210
Farm-gate.....	W. and E. Scott and H. R. Cernell.....	463,554	Nov. 17	2121	{ 559	{ 57	978
Farm-gate.....	H. Withy.....	459,472	Sept. 15	1461	{ 368	{ 56	1365
Farmers' use on hilly land. Instrument for.....	W. S. Standifer.....	463,771	Nov. 24	2474	{ 646	{ 57	1053
Fastener.....	E. F. Schultz.....	451,845	May 5	602	{ 150	{ 55	694
Fastening.....	W. S. Richardson.....	446,139	Feb. 10	1031	{ 254	{ 54	719
Fastening attachment.....	O. A. Elliott.....	463,351	Nov. 17	1806	{ 472	{ 57	916
Fastening device.....	C. La Dow.....	451,420	Apr. 28	2763	{ 683	{ 55	559
Fastening device.....	G. A. Veld.....	459,059	Sept. 8	805	{ 195	{ 56	1229
Faucet.....	A. W. Delane.....	464,276	Dec. 1	434	{ 103	{ 57	1217
Faucet.....	L. L. Hall.....	464,019	Dec. 1	25	{ 7	{ 57	1141
Faucet.....	H. J. Hescock and P. A. Sawyer.....	451,895	May 5	677	{ 171	{ 55	707
Faucet.....	A. P. Howes.....	453,785	June 9	961	{ 250	{ 55	1338
Faucet.....	G. H. Merrick.....	450,696	Apr. 21	1634	{ 392	{ 55	335
Faucet.....	A. D. Moore and A. K. Grim.....	452,526	May 19	1761	{ 442 443	{ 55	922
Faucet.....	M. Potter.....	464,689	Dec. 8	1056	{ 263	{ 57	1345
Faucet.....	C. P. Smith.....	453,165	May 26	2799	{ 702	{ 55	1129
Faucet.....	E. B. Wilder.....	444,323	Jan. 6	535	{ 139	{ 54	107
Faucet. Aerated-liquid.....	C. O. Neudecker.....	453,266	June 2	135	{ 36	{ 55	1173
Faucet. Beer.....	J. Delee.....	452,695	May 19	2021	{ 505	{ 55	973
Faucet. Beer.....	T. F. McDonald.....	464,318	Dec. 1	495	{ 118	{ 57	1228
Faucet. Can.....	C. M. Symonds.....	455,465	July 7	263	{ 67	{ 56	53
Faucet. Compound.....	W. M. Butler.....	464,472	Dec. 1	712	{ 174	{ 57	1270
Faucet for barrels.....	M. Anthony.....	449,513	Mar. 31	3655	{ 919	{ 54	1845
Faucet. Measuring.....	F. M. Draper.....	458,701	Sept. 1	238	{ 57	{ 56	1111
Faucet. Measuring.....	G. W. Miller.....	451,129	Apr. 28	2300	{ 570	{ 55	471
Faucet. Measuring.....	H. C. Shaffner.....	459,534	Sept. 15	1561	{ 389	{ 56	1384
Faucet. Measuring.....	F. C. H. Strasburger.....	448,093	Mar. 10	1336	{ 342	{ 54	1380
Faucet. Measuring.....	H. Thacker.....	449,143	Mar. 31	3028	{ 766	{ 54	1730
Faucet-plug.....	W. W. Moore.....	452,189	May 12	1208	{ 306	{ 55	810
Faucet. Registering beer.....	J. A. Durnbaugh.....	450,561	Apr. 14	1373	{ 338 339	{ 55	271
Faucet. Self-closing.....	J. Meany and C. H. Bodie.....	444,912	Jan. 20	1514	{ 389	{ 54	312
Faucet. Self-closing.....	G. W. Renton.....	444,018	Jan. 6	53	{ 15	{ 54	11
Faucet. Self-closing.....	H. A. Walker.....	444,514	Jan. 13	843	{ 219	{ 54	176
Faucet, stop, or valve.....	W. W. Moore.....	452,188	May 12	1207	{ 305	{ 55	809
Faucet-tool.....	T. Dottermann.....	460,956	Oct. 13	648	{ 167	{ 57	133
Feather-renovator.....	J. Baur.....	464,213	Dec. 1	326	{ 80	{ 57	1195
Feculent receiver.....	F. M. Miller.....	453,152	May 26	2766	{ 696 697	{ 55	1125
Feculent receiver.....	F. M. Miller.....	453,153	May 26	2768	{ 697	{ 55	1125
Feed-bag.....	F. S. Ketchum.....	457,086	Aug. 4	244	{ 63	{ 56	590
Feed-bag.....	M. Michels and J. Pauly.....	459,759	Sept. 22	1929	{ 486	{ 56	1461
Feed-bag.....	G. W. Salter.....	457,032	Aug. 4	152	{ 36	{ 56	562
Feed-bag attachment.....	G. B. Schmidt.....	457,220	Aug. 4	454	{ 118	{ 56	618
Feed-bag. Animal.....	G. D. Leonard.....	454,054	June 16	1312	{ 342	{ 55	1414
Feed-box regulator.....	J. S. Mills.....	453,817	June 9	1001	{ 261	{ 55	1346
Feed-cutter.....	A. Cameron.....	449,572	Mar. 31	3734	{ 939	{ 54	1860
Feed-cutter.....	J. McKenna.....	456,425	July 21	1795	{ 475	{ 56	358
Feed-cutter.....	E. W. Ross.....	454,920	June 30	2694	{ 689 690 675	{ 55	1689
Feed-cutter.....	E. W. Ross.....	460,268	Sept. 29	2709	{ 676 677	{ 56	1617
Feed-cutter.....	E. W. Ross.....	460,269	Sept. 29	2716	{ 677	{ 56	1618
Feed-cutter.....	C. F. Search.....	450,732	Apr. 21	1676	{ 405	{ 55	343
Feed-cutter and corn-husker. Combined.....	G. W. Crosby.....	461,405	Oct. 13	1353	{ 341	{ 57	270
Feed-cutter and corn-husker. Combined.....	W. Gutenkunst.....	460,336	Sept. 29	2821	{ 702 703	{ 56	1639
Feed cutter and crusher.....	E. A. Porter.....	454,790	June 23	2442	{ 628	{ 55	1636
Feed-cutter carrier attachment.....	E. W. Ross.....	461,622	Oct. 20	1760	{ 433 434	{ 57	350
Feed-cutters. Friction lock or clutch for fly-wheels of.....	A. Cameron.....	449,612	Mar. 31	3819	{ 957	{ 54	1875
Feed-fork.....	F. M. Stevens.....	450,642	Apr. 21	1551	{ 373	{ 55	319
Feed-grinder.....	C. A. Claypool.....	444,742	Jan. 13	1199	{ 311	{ 54	243
Feed-hopper.....	A. F. Dellone.....	463,493	Nov. 17	2018	{ 529	{ 57	959
Feed mechanism.....	F. H. Richards.....	452,431	May 19	1602	{ 398	{ 55	894
Feed-mill.....	J. D. Henry and W. E. Wood.....	449,445	Mar. 31	3551	{ 894	{ 54	1825

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr.	Vol.	Page.
Feed-mill	J. D. Henry and W. E. Wood	459,466	Sept. 15	1453	365	56	1364
Feed-rack	J. F. Fitzgerald	444,577	Jan. 13	944	245	54	195
Feed-rack	D. G. Hagenbaugh	456,563	July 28	2010	531	56	408
Feed-rack	J. C. Hurst	445,221	Jan. 27	2003	516	54	415
Feed-rack	S. H. Warren	449,303	Mar. 31	3220	831	54	1775
Feed-rack. Portable	R. I. Lapham	457,784	Aug. 18	1399	363	56	813
Feed-regulator	G. L. Dutcher and C. W. Boyle	449,580	Mar. 31	3754	{ 942 943 }	{ 54 54 }	{ 1863 1863 }
Feed-regulator	W. D. Gray	459,075	Sept. 8	827	201	56	1233
Feed regulator and register	W. C. Newman	450,298	Apr. 14	975	242	55	193
Feed-roller	L. G. McKnight	445,123	Jan. 20	1837	475	54	374
Feed-roller	B. D. Whitney	459,325	Sept. 8	1212	{ 296 297 }	{ 56 56 }	{ 1309 1309 }
Feed-trough	G. W. Boll and L. M. Reed	456,213	July 21	1434	380	56	291
Feed-trough	B. B. Georgia	462,251	Nov. 3	47	12	57	561
Feed-trough	W. A. Leech	462,146	Oct. 27	2592	645	57	518
Feed-trough	L. Müller	463,069	Nov. 10	1346	{ 348 349 }	{ 57 57 }	{ 821 821 }
Feed-trough	F. Sheller	465,033	Dec. 15	1621	412	57	1464
Feed-trough	W. J. Webb	459,322	Sept. 8	1208	295	56	1309
Feed-water. Apparatus for heating	G. H. Burpee. (Reissue)	11,162	May 5	702	176	55	711
Feed-water heater	J. Baird	456,712	July 28	2256	598	56	456
Feed-water heater	J. Baird	456,713	July 28	2258	{ 598 599 }	{ 56 56 }	{ 457 457 }
Feed-water heater	N. Clute	455,389	July 7	148	37.38	56	32
Feed-water heater	A. L. Draper	462,631	Nov. 3	643	163	57	675
Feed-water heater	W. Evans	460,528	Sept. 29	3120	780	56	1697
Feed-water heater	R. Learmonth	459,585	Sept. 15	1643	{ 411 412 }	{ 56 56 }	{ 1400 1400 }
Feed-water heater	R. G. McAuley	459,254	Sept. 8	1109	270	56	1288
Feed-water heater	W. A. Morse	460,483	Sept. 29	3034	760	56	1678
Feed-water heater	L. Norton	447,159	Feb. 24	2734	677	54	1067
Feed-water heater	B. W. Taylor	458,698	Sept. 1	234	55.56	56	1110
Feed-water heater	W. J. Thompson	454,781	June 23	2431	{ 624 625 }	{ 55 55 }	{ 1634 1634 }
Feed-water heater	W. W. Wells	452,049	May 12	955	243	55	766
Feed-water heater and condenser	J. F. Fife	446,913	Feb. 24	2307	{ 573 574 }	{ 54 54 }	{ 989 989 }
Feed-water heater and purifier	H. A. Anderson and C. C. McClaughry	453,072	May 26	2635	665	55	1100
Feed-water heater and purifier	A. Krumholz	461,244	Oct. 13	1090	277	57	218
Feed-water heater and purifier	V. H. McConnell	445,333	Feb. 3	679	166	54	644
Feed-water heater and purifier	V. H. McConnell	445,934	Feb. 3	681	166	54	645
Feed-water heater and purifier	W. A. Morse	448,984	Mar. 24	2774	702	54	1672
Feed-water heater and purifier	J. P. Warner	452,943	May 26	2430	613	55	1061
Feed-water heater and purifier	W. Webster	456,072	July 14	1222	321	56	240
Feed-water heater and purifier for boilers	W. Kerr	447,881	Mar. 10	998	252	54	1314
Feed-water heater for steam-boilers	J. Baird	460,347	Sept. 29	2838	706	56	1642
Feed-water heater for steam-boilers	J. Baird	460,830	Oct. 6	467	{ 118 119 }	{ 57 57 }	{ 93 93 }
Feed-water heater for steam-boilers	A. and R. Wildman	451,546	May 5	151	37	55	608
Feed-water heater. Locomotive	F. L. McGahan	456,676	July 28	2200	{ 583 584 }	{ 56 56 }	{ 448 448 }
Feed-water purifier	F. Chapsal	461,566	Oct. 20	1670	{ 408 409 }	{ 57 57 }	{ 335 335 }
Feed-water purifier	M. Egan and C. G. Udell	464,474	Dec. 1	714	174	57	1271
Feed-water purifier	J. J. Hoppes	445,407	Jan. 27	2271	589	54	469
Feed-water purifier	J. J. Hoppes	457,157	Aug. 4	344	88	56	599
Feed-water purifier	E. S. Titus and F. W. Werner	447,018	Feb. 24	1270	615	54	1019
Feed-water purifier	H. Warden	450,437	Apr. 14	2408	294	55	237
Feed-water regulator	F. L. McGahan	462,273	Nov. 3	84	20	57	567
Feed-water regulator	G. W. Schilling	465,212	Dec. 15	1916	486	57	1518
Feed-water regulator	S. K. Wagner and H. T. Bennett	452,975	May 26	2479	627	55	1070
Feed-water regulator. Automatic	J. Thomas	454,088	June 16	1368	357	55	1424
Feeder	L. J. Swoboda	451,532	May 5	128	32	55	604
Feeder and band-cutter	F. L. Clark and N. Greenlee	445,973	Feb. 10	747	{ 183 184 }	{ 54 54 }	{ 668 668 }
Feeder. Automatic animal	L. Person	448,256	Mar. 17	1611	411	54	1442
Feeder. Automatic stock	F. P. Boland	455,504	July 7	321	82	56	64
Feeder. Automatic stock	J. H. Carpenter	449,631	Mar. 31	3856	965	54	1883
Feeder. Automatic stock	G. Lloyd	458,588	Sept. 1	64	14	56	1078
Feeder. Time stock	C. H. Terry	461,457	Oct. 20	1437	362	57	292
Feeding cattle and hogs. Portable crib for	W. Crabb	463,857	Nov. 24	2609	679	57	1079
Feeding device	J. H. Morrison	445,964	Feb. 3	731	178	54	656
Fellies. Apparatus for drilling spoke-holes in	W. Hillman	457,718	Aug. 11	1284	{ 332 333 }	{ 56 56 }	{ 782 782 }
Fellies. Device for expanding	G. R. Thomson and H. T. Cottrell	463,206	Nov. 17	1570	409	57	872
Felly. Wheel	J. H. Ball	451,013	Apr. 28	2137	528	55	438
Felt boot	R. Heaton	462,129	Oct. 27	2566	638	57	513
Felting fur bodies	H. W. Flagg	444,209	Jan. 6	273	54	75	
Felting-machine	C. A. Whipple	460,805	Oct. 6	423	105	57	84
Fence	L. Barnes	445,531	Feb. 3	3	1	54	511
Fence	A. L. Bonnaffon	465,916	Dec. 29	3052	782	57	1756
Fence	S. H. Braden	454,677	June 23	2280	585	55	1603
Fence	J. O. Brookbank	458,821	Sept. 1	422	100	56	1146
Fence	J. G. Burcham	464,349	Dec. 1	542	132	57	1237
Fence	H. C. Chandler	449,667	Apr. 7	33	7	55	8
Fence	G. A. Christ	444,331	Jan. 6	545	141	54	109
Fence	J. B. Cleaveland	445,746	Feb. 3	381	97	54	588
Fence	O. Colborne	466,126	Dec. 29	3413	{ 873 874 }	{ 57 57 }	{ 1825 1825 }
Fence	C. Crabbs	447,539	Mar. 3	450	110	54	1202
Fence	F. B. Duffey and A. L. Kitselman	457,044	Aug. 4	165	41	56	565
Fence	A. F. Elsey	447,072	Mar. 3	636	158	54	1238

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Fence.....	H. A. Fenner.....	455,940	July 14	1030	269	56	205
Fence.....	J. Figer.....	449,528	Mar. 31	3673	923	54	1849
Fence.....	D. W. Fisher.....	461,937	Oct. 27	2281	565	57	460
Fence.....	Z. Fowler.....	460,960	Oct. 13	653	168	57	134
Fence.....	F. Fulkerson.....	451,374	Apr. 28	2691	667	55	546
Fence.....	S. M. J. House.....	444,382	Jan. 6	625	162	54	123
Fence.....	L. James.....	463,951	Nov. 24	2761	716	57	1108
Fence.....	G. H. Jordan.....	461,835	Oct. 27	3111	520	57	426
Fence.....	C. M. Kiler and R. E. Poindexter.....	453,148	May 26	2759	695	55	1123
Fence.....	A. L. Kitsehan.....	444,753	Jan. 13	1212	315	54	245
Fence.....	J. C. Kremer.....	451,940	May 12	768	194	55	731
Fence.....	E. Manlove.....	454,600	June 23	2162	558	55	1582
Fence.....	A. Newkirk.....	457,480	Aug. 11	928	236	56	712
Fence.....	L. Noggle.....	447,545	Mar. 3	458	112	54	1204
Fence.....	J. Owens.....	449,745	Apr. 7	157	39	55	32
Fence.....	R. E. Poindexter.....	462,412	Nov. 3	314	78	57	611
Fence.....	H. C. Pratt.....	456,637	July 28	2135	565	56	432
Fence.....	W. P. Randall.....	448,455	Mar. 17	1946	490	54	1507
Fence.....	N. Rice.....	448,545	Mar. 17	2076	521	54	1532
Fence.....	E. Roberts.....	459,019	Sept. 8	741	180	56	1217
Fence.....	J. B. Roberts.....	447,355	Mar. 3	126	35	54	1141
Fence.....	G. P. Ruhle.....	456,064	July 14	1211	319	56	238
Fence.....	C. D. Shellabarger.....	444,170	Jan. 6	317	76	54	64
Fence.....	W. S. Sutton.....	449,602	Mar. 31	3789	951	54	1870
Fence.....	J. C. Tauber.....	444,225	Jan. 6	400	99	54	79
Fence.....	T. A. Tweedy.....	447,588	Mar. 3	521	127	54	1215
Fence.....	P. W. Weennett.....	458,028	Aug. 18	1811	472	56	890
Fence.....	W. D. Whitney.....	447,420	Mar. 3	240	61	54	1162
Fence and tree-protector. Combined.....	G. E. Blaine and P. T. South.....	446,849	Feb. 24	2179	543	51	967
Fence. Barbed-wire.....	J. W. Griswold.....	465,638	Dec. 22	2625	669	57	1662
Fence. Barbed-wire.....	J. W. Griswold.....	465,639	Dec. 22	2626	669	57	1663
Fence. Barbed-wire.....	J. W. Griswold.....	465,640	Dec. 22	2626	670	57	1663
Fence. Barbed-wire.....	J. W. Griswold.....	465,641	Dec. 22	2627	670	57	1663
Fence. Barbed-wire.....	J. W. Griswold.....	465,642	Dec. 22	2627	670	57	1663
Fence. Barbed-wire.....	J. W. Griswold.....	465,643	Dec. 22	2628	670	57	1663
Fence. Barbed-wire.....	J. W. Griswold.....	465,644	Dec. 22	2628	671	57	1663
Fence. Barbed-wire.....	J. W. Griswold.....	465,645	Dec. 22	2629	671	57	1664
Fence. Barbed-wire.....	E. L. Lewis.....	465,629	Dec. 22	2606	662	57	1658
Fence. Barbed-wire.....	E. L. Lewis.....	465,630	Dec. 22	2607	662	57	1659
Fence-building machine. Picket.....	E. E. Witter.....	444,726	Jan. 13	1160	299 } 300 }	54	236
Fence-clamp.....	H. Loether.....	461,762	Oct. 20	1983	490	57	394
Fence construction.....	N. Gillham.....	449,441	Mar. 31	3543	893	54	1824
Fence. Flood.....	D. E. Casselman and E. H. Fletcher.....	446,111	Feb. 10	982	241	54	710
Fence. Flood.....	H. Catlett and E. Robertson.....	449,204	Mar. 31	3124	788	54	1748
Fence. Flood.....	J. A. Davis.....	446,852	Feb. 24	2190	545	54	969
Fence. Flood.....	H. Huffman, Jr.....	456,991	Aug. 4	99	25	56	552
Fence. Flood.....	W. W. King.....	464,605	Dec. 8	914	225	57	1319
Fence. Flood.....	H. A. Mace.....	448,154	Mar. 10	1425	364	54	1398
Fence. Flood.....	J. R. Wonacott.....	459,162	Sept. 8	971	236	56	1261
Fence. Hedge.....	E. H. Neiman.....	451,066	Apr. 28	2203	545	55	451
Fence. Hedge.....	R. Raby.....	459,181	Sept. 8	1003	245	56	1267
Fence. Iron.....	C. Goebels.....	465,074	Dec. 15	1685	429	57	1474
Fence-machine.....	J. H. Burkholder and J. L. Clark.....	448,601	Mar. 17	2174	542	54	1549
Fence-machine.....	G. J. Cline and J. R. Detwiler.....	446,327	Feb. 10	1364	332	54	752
Fence-machine.....	E. S. Lafferty.....	455,627	July 7	532	130	56	103
Fence. Machine for attaching vertical wires in a wire.....	E. E. and O. Cole.....	450,791	Apr. 21	1770	431	55	361
Fence-machine. Hand.....	M. F. Connett, Jr.....	448,410	Mar. 17	1875	472	54	1494
Fence-machine. Picket-wiring.....	E. F. Morton.....	452,613	May 19	1890	476	55	947
Fence-machine. Reversible.....	W. H. Myers.....	462,724	Nov. 10	798	208	57	714
Fence machine. Wire.....	J. J. Darden.....	460,565	Oct. 6	34	8	57	8
Fence machine. Wire.....	J. C. Downing.....	462,630	Nov. 3	642	162 } 163 }	57	675
Fence machine. Wire.....	L. B. Gandy.....	462,898	Nov. 10	1084	282	57	770
Fence machine. Wire.....	A. Land.....	455,406	July 7	172	44. 45	56	36
Fence machine. Wire-and-slat.....	J. M. Orenti.....	444,559	Jan. 13	914	238	54	189
Fence-machines. Roller-feed for power.....	G. Q. Adams.....	445,297	Jan. 27	2107	546	54	435
Fence machines. Tension device for wire.....	W. Delain.....	462,303	Nov. 3	138	34	57	577
Fence-making device.....	G. Littell.....	459,883	Sept. 22	2130	335	56	1500
Fence-making implement. Wire.....	W. McCormack and C. E. Craig.....	456,093	July 14	1946	328	56	245
Fence-making machine.....	B. Duley.....	454,260	June 16	1613	424	55	1472
Fence-making machine.....	W. H. Jenkins.....	444,752	Jan. 13	1210	314 } 315 } 315 }	54	245
Fence-making machine. Wire-and-picket.....	C. N. Davis.....	461,818	Oct. 27	2084	514 } 515 }	57	421
Fence-making machines. Picket-feeder for.....	J. F. Mauck.....	449,549	Mar. 31	3706	931	54	1855
Fence-making machines. Reel for.....	G. Q. Adams.....	445,296	Jan. 27	2106	545	54	435
Fence or gate.....	H. Friday.....	444,960	Jan. 20	1599	408	54	327
Fence or other posts, surveyors' pegs, &c. Ground-anchorage for.....	H. O. Hall.....	461,753	Oct. 20	1962	487	57	389
Fence. Picket.....	D. J. Schneider.....	460,221	Sept. 29	2637	658	56	1603
Fence. Portable.....	S. Bonn.....	464,549	Dec. 8	834	206	57	1303
Fence. Portable.....	F. Freeman and C. I. Haley.....	463,893	Nov. 24	2670	696	57	1090
Fence. Portable.....	C. E. Harris.....	459,287	Sept. 8	1161	283	56	1299
Fence. Portable.....	H. L. Keshing.....	457,647	Aug. 11	1173	301	56	761
Fence. Portable farm.....	A. E. Claussen and A. J. Jones.....	446,112	Feb. 10	983	242	54	711
Fence. Portable rail.....	C. B. Wynegar.....	447,223	Feb. 24	2-39	704	54	1089
Fence-post.....	L. Barnes.....	457,860	Aug. 18	1529	398	56	838
Fence-post.....	H. Brown.....	451,151	Apr. 28	2237	580	55	478
Fence-post.....	J. B. Cleaveland.....	447,231	Feb. 24	2859	709	54	1092
Fence-post.....	J. E. Daniels.....	448,180	Mar. 10	1469	374	54	1407
Fence-post.....	C. H. Gersch.....	450,385	Apr. 14	1127	276	55	222
Fence-post.....	I. K. Hollinger.....	464,873	Dec. 8	1331	334	57	1399

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Fence-post	E. Minnick	444,781	Jan. 13	1256	325	54	253
Fence-post	T. S. Riddel	448,078	Mar. 10	1313	336	54	1376
Fence-post	J. M. Rife	447,204	Feb. 24	2804	693	54	1081
Fence-post	W. M. Skelton	458,504	Aug. 25	2580	628 629	56	1043
Fence-post	W. H. Thomson	454,506	June 23	2002	519	55	1554
Fence-post	E. D. Watkins	449,018	Mar. 24	2827	716	54	1683
Fence-post base	R. E. Poindexter	445,198	Jan. 27	1968	509	54	409
Fence-post driver	H. D. Marshall	464,031	Dec. 1	39	11	57	1144
Fence-post. Metal	J. J. Crane	454,611	June 23	2182	563	55	1585
Fence-post. Metallic	J. J. Farner	460,573	Oct. 6	49	12	57	11
Fence-post. Metallic	H. Fischer	449,317	Mar. 31	3320	837	54	1782
Fence-post. Metallic	A. P. Smith	459,594	Sept. 15	1663	415	56	1403
Fence-post. Sheet-metal	F. P. Rosback	457,133	Aug. 4	302	80	56	591
Fence-post support	G. W. Porter	461,709	Oct. 20	1902	470	57	377
Fence-posts. Metallic base for	J. Green	465,662	Dec. 22	2658	678	57	1669
Fence-posts, &c. Metallic socket for	C. A. Lounsberry	444,497	Jan. 13	819	214	54	171
Fence-posts. Shearing-roll for cutting blanks for	C. A. Peterson	463,916	Nov. 24	2712	704 705	57	1098
Fence rail and post	S. F. Ames	455,147	June 30	3114	791	55	1769
Fencerail-coupling Iron	C. Hanika	448,029	Mar. 10	1247	318	54	1362
Fence rail. Wire	O. Preston	465,028	Dec. 15	1614	411	57	1463
Fence-station device. Electric	D. H. Wilson	457,296	Aug. 4	585	154 155	56	641
Fence stations. Switch-board for electric	D. H. Wilson	455,696	July 7	640	169	56	124
Fence-stay	J. W. Yates	461,923	Oct. 27	2258	558	57	455
Fence-stay fastening. Wire	S. Eberly	460,913	Oct. 6	588	149	57	115
Fence-stay. Wire	S. F. Duncan	451,033	Apr. 28	2161	534	55	443
Fence. Straight rail	D. and S. R. Port	447,201	Feb. 24	2800	692	54	1081
Fence-strand	A. B. Woodard	462,887	Nov. 10	1063	275	57	766
Fence-strands. Tool for joining wire	J. D. Jones	455,869	July 14	924	241	56	186
Fence-tool	E. M. Baker	462,523	Nov. 3	471	115	57	641
Fence-weaving machine	H. Haynes	450,573	Apr. 14	1387	342	55	274
Fence. Wire	F. H. Adriance	452,952	May 26	2441	615	55	1063
Fence. Wire	J. W. Buchanan	453,542	June 2	570	145	55	1255
Fence. Wire	A. F. Dickey	463,446	Nov. 17	1951	509	57	945
Fence. Wire	A. F. Dickey, O. P. Shaver, H. Stahl, and E. C. Welch	456,022	July 14	1160	304	56	228
Fence. Wire	G. H. Grosvenor	453,272	June 2	145	40	55	1175
Fence. Wire	I. K. Hollinger	464,435	Dec. 1	657	161	57	1260
Fence. Wire	T. J. Ingraham	451,672	May 5	352	86	55	646
Fence. Wire	C. M. Kiler	457,159	Aug. 4	346	88	56	599
Fence. Wire	A. Land	444,364	Jan. 6	594	153	54	118
Fence. Wire	P. Mast	448,061	Mar. 10	1295	331	54	1371
Fence. Wire	P. Mast	449,373	Mar. 31	3427	861	54	1800
Fence. Wire	M. M. Shellabarger	452,620	May 19	1902	478	55	949
Fence. Wire	W. Trimble	460,411	Sept. 29	2926	731	56	1658
Fence. Wire	W. F. Webber	460,316	Sept. 29	2798	695	56	1632
Fence-wire. Barbed	J. W. Blake	446,607	Feb. 17	1734	444	54	881
Fence-wire. Barbed	J. Haish	463,742	Nov. 24	2432	638	57	1045
Fence-wire fastener	F. H. Machen	462,443	Nov. 3	358	88	57	619
Fence-wire reel	S. Moore	466,179	Dec. 29	3491	891	57	1840
Fence-wire reel	M. F. Reagau	462,587	Nov. 3	579	141	57	662
Fence-wire-spool carrier and winder	H. Miller	450,030	Apr. 7	569	142	55	110
Fence-wire stretcher	G. Shillinger	459,554	Sept. 15	1597	400	56	1391
Fence-wire-stringing implement	T. J. Thorp	457,138	Aug. 4	310	81, 82	56	593
Fence-wire tightener	H. G. McDaniel	449,563	Mar. 31	3725	935	54	1858
Fence-wire-tightening implement	T. J. Thorp	464,207	Dec. 1	316	76, 77	57	1193
Fence-wires. Tightener and fastener for	A. L. Thompson	449,450	Mar. 31	3562	898	54	1827
Fence. Woven-wire farm	J. D. Riggs	460,218	Sept. 29	2633	657	56	1603
Fence-wrench	C. H. Van Epps	448,564	Mar. 17	2108	528	54	1538
Fences, &c. Constructing barb-wire	E. B. Guenzel	452,002	May 12	867	221	55	750
Fences. End or corner structure for	C. F. Darnell	451,461	May 5	24	6	55	583
Fences. Material for making wire	J. Beresford	449,279	Mar. 31	3242	821	54	1769
Fences. Tension device for slat-and-wire	F. Emley	445,547	Feb. 3	30	8	54	517
Fences. Visible strip for wire	M. M. Shellabarger	465,391	Dec. 15	2215	568	57	1575
Fencing. Barbed	E. Jordan	444,957	Jan. 20	1596	407	54	326
Fencing. Barbed metallic	T. V. Allis	446,557	Feb. 17	1731	425	54	868
Fencing. Barbed metallic	T. V. Allis	446,558	Feb. 17	1732	425	54	868
Fencing. Die for use in making barbed	E. Jordan	450,077	Apr. 7	633	159	55	124
Fencing. Die for use in making barbed	E. Jordan	450,078	Apr. 7	634	159	55	124
Fencing. Die for use in making barbed	E. Jordan	450,079	Apr. 7	637	160	55	124
Fencing. Die for use in making barbed	J. H. Templin	450,044	Apr. 7	585	145	55	113
Fencing. Die for use in making barbed	J. H. Templin	450,045	Apr. 7	586	145	55	113
Fencing. Die for use in making barbed	J. H. Templin	450,046	Apr. 7	587	146	55	113
Fencing. Die for use in making barbed	J. H. Templin	450,047	Apr. 7	589	146	55	113
Fencing. Die for use in making barbed	J. H. Templin	450,048	Apr. 7	590	146	55	114
Fencing. Die for use in making barbed	J. H. Templin	450,049	Apr. 7	591	146	55	114
Fencing. Die for use in making barbed	J. H. Templin	457,941	Aug. 18	1673	438	56	864
Fencing. Die used in making sheet-metal	T. V. Allis	455,867	July 14	920	240	56	185
Fencing-machine. Automatic	W. P. Shattuck	454,530	June 23	2034	527 528	55	1559
Fencing. Machine for wiring wood	S. H. and M. H. Merriidith	451,500	May 5	89	22, 23	55	596
Fencing machine. Slat-and-wire	R. Hoover	446,255	Feb. 10	1249	305	54	759
Fencing. Making	P. Miles	462,500	Nov. 3	437	107	57	633
Fencing-strand	T. J. Ingraham	453,116	May 26	2707	682	55	1115
Fencing-strand	A. B. Woodard	447,927	Mar. 10	1079	270	54	1329
Fender: <i>See</i> Car-fender. Ship's fender. Fire-place fender. Vehicle-wheel fender. Mill-race fender. Vessel-fender. Plow-fender.							
Fender	A. W. Allen	462,188	Oct. 27	2656	665	57	531
Fermenting-vat	U. Bachmann	454,586	June 23	2128	549	55	1577

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Fermenting-vat guard.....	G. Sobotka.....	444,944	Jan. 20	1567	402	54	321
Perrule.....	J. Macphail.....	445,596	Feb. 3	120	30	54	534
Perrule. Iron or steel point.....	R. J. Ashworth.....	452,987	May 26	2499	633	55	1074
Fertilizer.....	C. W. Doughty.....	462,476	Nov. 3	406		57	627
Fertilizer and for planting seed. Machine for distributing.....	P. H. Fontaine.....	457,612	Aug. 11	1129	288	56	752
Fertilizer. Apparatus for obtaining, separating, and disinfecting a.....	M. Nadiem.....	463,429	Nov. 17	1929	504	57	941
Fertilizer-distributor.....	J. D. Barron.....	456,933	Aug. 4	7	2	56	534
Fertilizer-distributor.....	J. W. Cook and C. E. Patrie.....	450,308	Apr. 14	997	247	55	198
Fertilizer-distributor.....	W. G. De Berry.....	448,135	Mar. 10	1397	357	54	1393
Fertilizer-distributor.....	H. P. Deuschler and F. J. Becker.....	444,394	Jan. 6	644	168	54	126
Fertilizer-distributor.....	W. C. Eiders.....	444,193	Jan. 6	352	86	54	71
Fertilizer-distributor.....	C. W. Fuller.....	460,961	Oct. 13	654	169	57	135
Fertilizer-distributor.....	J. J. Lawton.....	461,838	Oct. 27	2114	520 521	57	427
Fertilizer-distributor.....	B. F. Martin.....	459,758	Sept. 22	1928	486	56	1461
Fertilizer-distributor.....	J. R. McCord.....	450,598	Apr. 14	1435	353	55	282
Fertilizer-distributor.....	J. F. McLaurin and D. L. Whitaker.....	445,189	Jan. 27	1954	505	54	405
Fertilizer-distributor.....	L. F. Orr.....	454,977	June 30	2810	715	55	1711
Fertilizer-distributor.....	D. M. Pitts.....	459,305	Sept. 8	1185	288	56	1304
Fertilizer-distributor.....	J. W. Rozar.....	452,240	May 12	1280	322	55	825
Fertilizer-distributor.....	C. Schmalzrid.....	453,799	June 9	978	254	55	1341
Fertilizer-distributor.....	C. Schmalzrid.....	459,223	Sept. 8	1065	259	56	1279
Fertilizer-distributor.....	C. Schmalzrid.....	459,240	Sept. 8	1089	266	56	1284
Fertilizer-distributor.....	J. H. and J. E. Smith.....	446,795	Feb. 17	2087	520	54	939
Fertilizer-distributor and planter. Combined.....	A. M. Hanna and L. J. Walker.....	462,548	Nov. 3	515	126	57	649
Fertilizer-distributor and seeder. Combined.....	S. E. Clarkson.....	448,010	Mar. 10	1226	311 312	54	1357
Fertilizer-distributor and wheelbarrow. Combined.....	J. M. Kirkpatrick.....	456,418	July 21	1775	470	56	355
Fertilizer-distributor attachment.....	J. M. Robinson.....	466,260	Dec. 29	3616	925	57	1864
Fertilizer-distributor. Hand.....	C. C. Bates and C. D. Wren.....	448,004	Mar. 10	1210	307	54	1354
Fertilizer-distributor. Hand.....	J. G. McKethan.....	446,787	Feb. 17	2069	515	54	935
Fertilizer from stick. Making.....	J. Van Ruymbeke.....	461,164	Oct. 13	942		57	188
Fertilizer. Nitrogenous.....	J. Van Ruymbeke.....	446,088	Feb. 10	945		54	703
Fertilizer. Nitrogenous.....	J. Van Ruymbeke.....	448,387	Mar. 17	1843		54	1487
Fertilizer. Phosphatic.....	J. Reese.....	450,254	Apr. 14	917		55	182
Fertilizer. Phosphatic.....	J. Reese.....	450,255	Apr. 14	918		55	183
Fertilizer. Phosphatic.....	J. Reese.....	450,531	Apr. 14	1337		55	263
Fertilizer. Phosphatic.....	J. Van Ruymbeke.....	453,749	June 9	897		55	1326
Fertilizer. Phosphatic.....	J. Van Ruymbeke.....	453,750	June 9	899		55	1326
Fertilizers. Making.....	W. B. Seal.....	445,255	Jan. 27	2058		54	425
Fertilizers. Making phosphatic.....	J. Van Ruymbeke.....	446,998	Feb. 24	2432		54	1012
Fertilizers. Manufacture of.....	E. Watson.....	458,744	Sept. 1	296		56	1122
Fiber and apparatus therefor. Separating.....	J. McGrath and G. Y. Smith.....	456,155	July 21	1345	357	56	275
Fiber-drawing apparatus.....	W. Thompson.....	461,855	Oct. 27	2133	526	57	430
Fiber-feeding machine.....	F. G. and A. C. Sargent.....	450,804	Apr. 21	1794	436	55	365
Fiber-feeding machine.....	F. G. and A. C. Sargent.....	451,136	Apr. 28	2312	572 573	55	473
Fiber-separating machine.....	J. McGrath and G. Y. Smith.....	456,156	July 21	1348	358	56	275
Fibers. Chemical retting and ungumming of textile.....	C. De la Roche.....	446,983	Feb. 24	2412		54	1009
Fibers. Degumming and preparing.....	W. R. Wade.....	449,454	Mar. 31	3568		54	1828
Fibers. Degumming and preparing.....	W. R. Wade.....	449,455	Mar. 31	3569		54	1828
Fibers. Machine for the extraction of.....	G. F. Miller.....	451,063	Apr. 28	2200	544	55	451
Fibrous material. Drawing-head for.....	J. M. Dunham and J. McKemie.....	460,083	Sept. 22	2423	606	56	1555
Fibrous material. Edging and degumming.....	G. E. Armstrong.....	464,056	Dec. 1	68		57	1150
Fibrous material to pickers, &c. Mechanism for supplying.....	W. C. Bramwell.....	464,551	Dec. 8	837	206	57	1303
Fibrous plants. Machine for decorticating.....	J. G. Hernandez.....	447,152	Feb. 24	2722	674 675	54	1065
Fibrous plants. Machine for disintegrating.....	D. Prieto.....	446,791	Feb. 17	2075	517 518	54	936
Field-glasses. Compass attachment for.....	E. G. King.....	444,795	Jan. 13	1272	329	54	256
Fifth-wheel.....	J. W. Anderson and S. B. Cox.....	460,495	Sept. 29	3052	766	56	1682
Fifth-wheel.....	J. J. Black.....	451,687	May 5	376	92	55	650
Fifth-wheel.....	G. G. F. Boswell.....	460,107	Sept. 29	2463	616	56	1569
Fifth-wheel.....	V. S. Dupuy and F. J. Fortier.....	452,997	May 26	2517	637	55	1077
Fifth-wheel.....	J. J. Fetzter.....	459,360	Sept. 8	1276	315	56	1322
Fifth-wheel.....	J. H. Gressom.....	448,025	Mar. 10	1244	317	54	1361
Fifth-wheel.....	M. Halfpenny.....	458,549	Aug. 25	2644	643 644	56	1056
Fifth-wheel. Ball-and-socket.....	T. A. Watson.....	465,080	Dec. 15	1698	432	57	1478
Fifth-wheel. Vehicle.....	S. H. Cawley.....	458,942	Sept. 1	614	151	56	1185
Fifth-wheel. Vehicle.....	W. W. Grier.....	447,312	Mar. 3	46	12	54	1126
Fifth-wheel. Vehicle.....	A. W. Johnson.....	450,911	Apr. 21	1961	481	55	396
Fifth-wheel. Wagon.....	A. B. Bishop.....	448,843	Mar. 24	2569	644	54	1633
File.....	C. D. Smith.....	455,443	July 7	229	59	56	47
File and polisher.....	J. Schweizer.....	460,312	Sept. 29	2783	693	56	1631
File. Bill.....	W. A. Gay.....	462,431	Nov. 3	345	85	57	616
File. Bill.....	B. H. Gleason.....	464,127	Dec. 1	176	43	57	1170
File. Bill.....	W. D. House.....	448,237	Mar. 17	1574	402	54	1436
File. Bill.....	A. L. Purdy.....	461,046	Oct. 13	778	199	57	157
File. Bill.....	W. W. Rnyon.....	453,664	June 9	766	198	55	1300
File. Bill.....	J. S. Sammons.....	459,471	Sept. 15	1459	367	56	1365
File. Bill or letter.....	C. A. Gildemeyer.....	465,258	Dec. 15	1992	509	57	1532
File. Bill or letter.....	J. W. Henson.....	448,149	Mar. 10	1416	362	54	1397
File-box.....	F. S. Osborn and C. E. Foster.....	456,591	July 28	2055	544	56	417
File-box.....	P. H. Yarnman.....	458,882	Sept. 1	529	129	56	1166
File-box and manufacturing the same.....	C. M. Carnahan.....	451,736	May 5	433	105	55	661
File-box. Knockdown.....	H. C. Yeiser.....	456,075	July 14	1226	322	56	241
File-cabinet.....	F. A. Yeiser.....	451,535	May 5	136	34	55	605
File-case.....	M. C. Meigs.....	451,599	May 5	231	56	55	623
File-clip.....	E. Brunnhoff and C. Lehmann.....	448,117	Mar. 10	1366	350	54	1386
File-cutting machine.....	J. Bnyer.....	462,075	Oct. 27	2473	613	57	496

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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File-cutting machine.....	J. Erlenwein.....	447,149	Feb. 24	2713	{ 672 673 }	54	1063
File-cutting machine.....	J. and T. Fischer.....	458,732	Sept. 1	280	68	56	1119
File-cutting machine.....	A. Shardlow.....	449,765	Apr. 7	187	47	55	38
File-cutting machine.....	E. Sweet.....	461,720	Oct. 20	1915	{ 473 474 }	57	380
File. Document.....	A. Doim.....	461,781	Oct. 20	2019	498	57	400
File. Document.....	G. F. W. Schultze.....	451,310	Apr. 28	2604	642	55	529
File for toilet use. Nail.....	I. Cassidy.....	448,409	Mar. 17	1875	471	54	1494
File-handle.....	J. Reiley.....	447,904	Mar. 10	1040	261	54	1322
File. Indexed.....	R. D. Richardson and C. A. Sadleir.....	444,853	Jan. 20	1407	366	54	291
File. Ledger, bill, or account.....	E. H. Doan.....	465,465	Dec. 22	2325	597	57	1606
File. Letter.....	F. M. Baker.....	452,353	May 19	1480	367	55	871
File. Letter.....	M. R. Jewell.....	455,596	July 7	484	{ 125 126 }	56	93
File. Letter or bill.....	C. T. Goewey.....	459,687	Sept. 15	1814	456	56	1432
File. Letter or bill.....	B. Lawrence.....	457,562	Aug. 11	1047	268	56	737
File. Memorandum or scrap.....	S. G. Higgins.....	458,394	Aug. 25	2410	566	56	1011
File. Newspaper.....	C. H. Jaehning.....	461,438	Oct. 20	1405	355	57	286
File. Newspaper.....	J. J. Shenk.....	466,143	Dec. 29	3440	880	57	1831
File. Newspaper.....	C. F. Straube and A. Richter.....	465,568	Dec. 22	2506	639	57	1641
File or binder. Spindle.....	R. B. Gatling.....	447,565	Mar. 3	483	{ 118 119 }	54	1208
File or portfolio.....	J. J. Hanlon.....	448,816	Mar. 24	2523	632	54	1624
File or rasp.....	T. N. Dallas.....	445,712	Feb. 3	323	85	54	576
File or wrapper clasp.....	W. H. Bell.....	460,066	Sept. 22	2395	600	56	1549
File. Paper.....	J. B. Clouton.....	457,771	Aug. 18	1379	357	56	810
File. Paper.....	A. B. Dick.....	447,067	Feb. 24	2562	636	54	1036
File. Paper.....	A. Dom.....	450,097	Apr. 7	659	167	55	129
File. Paper.....	C. W. Hobbs.....	453,396	June 2	334	86	55	1210
File. Paper.....	M. Oplann.....	460,156	Sept. 29	2543	634	56	1584
File. Paper.....	C. E. Stone.....	454,502	June 23	1993	517	55	1552
File. Paper.....	H. A. Wahlert.....	465,400	Dec. 15	2228	572	57	1577
File. Paper or bill.....	A. Dom.....	451,729	May 5	437	106	55	662
File-rack.....	C. Lehmann and E. Brunhoff.....	460,252	Sept. 29	2679	667	56	1611
File-rack. Newspaper.....	J. L. Mahin.....	459,011	Sept. 8	721	177	56	1214
Files and rasps. Machine for cutting.....	A. Weed.....	460,355	Sept. 29	2855	711	56	1645
Files. Apparatus for recutting.....	A. P. de Sennevoy.....	448,144	Mar. 10	1409	360	54	1395
Files. Case and drawer for.....	H. J. Hoffman.....	455,251	June 30	3273	830	55	1800
Files. Case and drawer for bill.....	H. J. Hoffman.....	453,397	June 2	335	87	55	1210
Files or rasps. Machine for cutting.....	A. Weed.....	460,543	Sept. 29	3149	766	56	1702
Filing-band.....	F. N. and J. H. F. Dixon.....	463,380	Nov. 17	1852	484	57	926
Filing-case for drawers.....	H. J. Hoffman.....	459,139	Sept. 8	935	224	56	1255
Filing papers, &c. Cabinet for.....	S. G. Browne.....	446,160	Feb. 10	1079	{ 264 265 }	54	726
Figree ornaments. Making.....	C. K. Smith.....	452,292	May 12	1362	339	55	840
Filling attachment.....	F. D. Winkley.....	463,088	Nov. 10	1373	355	57	826
Filling-can.....	M. H. Garland.....	454,614	June 23	2187	564	55	1586
Filter.....	L. P. Andrews.....	461,303	Oct. 13	1174	299	57	235
Filter.....	W. Birch.....	461,232	Oct. 13	1073	272	57	213
Filter.....	J. A. Bowden.....	455,526	July 7	362	92	56	71
Filter.....	J. A. Bowden.....	456,374	July 21	1710	453	56	343
Filter.....	M. Brand.....	458,312	Aug. 25	2267	554	56	963
Filter, &c.....	F. Breyer.....	444,483	Jan. 13	787	205	54	165
Filter.....	E. Burhorn.....	457,025	Aug. 4	141	35	56	560
Filter.....	T. H. Butler.....	461,234	Oct. 13	1076	272	57	214
Filter.....	R. R. Darling.....	457,630	Aug. 11	1151	294	56	766
Filter.....	C. B. Davis and E. H. Riddell.....	450,223	Apr. 14	852	{ 213 215 }	55	172
Filter.....	J. A. Fulton.....	454,340	June 16	1732	451	55	1495
Filter.....	P. H. A. Gaillet.....	459,574	Sept. 15	1637	408	56	1397
Filter.....	H. Goodaere.....	446,342	Feb. 10	1387	{ 338 339 }	54	787
Filter.....	O. H. Jewell.....	463,757	Nov. 24	2456	642	57	1050
Filter.....	O. H. and W. M. Jewell.....	458,368	Aug. 25	2366	577	56	1002
Filter.....	W. M. and O. H. Jewell.....	447,568	Mar. 3	487	120	54	1209
Filter.....	E. M. Knight.....	444,754	Jan. 13	1214	{ 315 316 }	54	246
Filter.....	E. M. Knight.....	445,223	Jan. 27	2006	{ 516 517 }	54	416
Filter.....	E. M. Knight.....	445,224	Jan. 27	2009	517	54	416
Filter.....	J. F. Le Beau.....	451,060	Apr. 28	2195	543	55	450
Filter.....	P. A. Maignen.....	460,378	Sept. 29	2885	{ 720 721 }	56	1650
Filter.....	M. B. Manwaring and G. N. Vanderhoef.....	456,119	July 14	1286	338	56	254
Filter.....	A. McCutcheon.....	460,984	Oct. 13	692	179	57	142
Filter.....	M. McDonald.....	455,573	July 7	443	117	56	85
Filter.....	J. H. Millen.....	445,568	Feb. 3	73	17	54	526
Filter.....	B. F. Perkins.....	460,311	Sept. 29	2781	693	56	1631
Filter.....	C. G. Purdy.....	454,766	June 23	2405	618	55	1629
Filter.....	J. S. Roake.....	446,153	Feb. 10	1057	260	54	723
Filter.....	C. Shuman.....	458,667	Sept. 1	188	44	56	1101
Filter.....	H. Warden.....	450,204	Apr. 14	821	206	55	166
Filter.....	W. Weaver.....	463,410	Nov. 17	1907	498	57	936
Filter.....	J. M. Wells.....	458,204	Aug. 25	2076	537	56	948
Filter.....	W. W. Whiddit.....	444,623	Jan. 13	1002	165	54	207
Filter.....	W. W. Whiddit.....	461,004	Oct. 13	116	15	57	146
Filter and purifier. Water.....	V. Oster.....	457,008	Aug. 4	118	29	56	556
Filter for sirups and juices in sugar-works.....	K. Proks.....	449,271	Mar. 31	3224	814	54	1766
Filter. Oil.....	F. M. Campbell and W. L. Flower.....	456,797	July 28	2402	{ 632 633 }	56	482
Filter. Oil.....	F. A. Ellis.....	453,629	June 9	716	185	55	1291

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Filter. Oil.....	A. S. Krotz.....	448,152	Mar. 10	1421	363	54	1398
Filter. Oil.....	C. Porter.....	459,099	Sept. 8	876	211	56	1243
Filter. Oil.....	T. W. Shelton.....	458,075	Aug. 18	1874	488	56	904
Filter-press.....	Z. B. Coes and G. T. Reiss.....	447,024	Feb. 24	2484	618	54	1021
Filter-press.....	R. Giebertmann.....	445,053	Jan. 20	1732	446	54	354
Filter-press.....	S. H. Johnson and C. C. Hutchinson.....	459,488	Sept. 15	1488	373	56	1371
Filter-press.....	F. W. Wiesebroek.....	450,326	Sept. 8	1214	297	56	1310
Filter. Pressure.....	P. R. and P. R. Gray, Jr.....	445,890	Feb. 3	616	151	54	633
Filter. Water.....	C. B. Davis and E. H. Riddell.....	450,222	Apr. 14	847	212	55	171
Filters. Antiseptic air-vent and overflow for.....	C. G. Purdy.....	448,671	Mar. 24	2295	576	54	1580
Filters. Device for feeding chemicals to.....	T. H. Butler.....	401,235	Oct. 13	1077	272	57	214
Filters. Recarbonizer for.....	W. W. Whiddit.....	450,209	Apr. 14	830	309	55	168
Filtering apparatus.....	J. A. Bowden.....	455,527	July 7	363	92, 93	56	71
Filtering apparatus.....	W. E. Hersherberger.....	455,620	July 7	520	134	56	100
Filtering apparatus.....	H. Stockheim.....	444,733	Jan. 13	1124	306	54	240
Filtering apparatus.....	J. E. Warren.....	454,817	June 23	2503	644	55	1645
Filtering-galleries. Forming subterranean.....	C. Monjeau.....	461,445	Oct. 20	1416	357	57	288
Filtering machinery.....	E. Martin.....	453,815	June 9	997	260	55	1345
Filtering sirnps. Apparatus for.....	O. H. Jewell.....	445,371	Jan. 27	2215	574	54	458
Filtering-surfaces. Method of and means for cleaning.....	M. McDonald.....	455,574	July 7	445	118	56	86
Filtration.....	J. Sutton.....	460,271	Sept. 29	2719	677	56	1619
Filtration. Downward.....	J. W. Hyatt.....	445,585	Feb. 3	105	25, 26	54	532
Finger-bar.....	A. J. Inglis.....	447,245	Feb. 24	2879	715	54	1096
Finger-bar and guard-finger.....	L. Miller.....	449,802	Apr. 7	246	62	55	49
Finger-guard.....	W. Barrett.....	460,104	Sept. 29	2459	615	56	1569
Finger-nails. Device for trimming.....	R. H. Price.....	450,703	Apr. 21	1644	394	55	336
Finger-ring.....	P. D. Banghart.....	460,103	Sept. 29	2459	615	56	1569
Finger-ring.....	H. J. Berlepsch.....	466,287	Dec. 29	3661	936	57	1872
Finger-ring.....	J. H. Bullard.....	464,749	Dec. 8	1152	286	57	1362
Finger-ring.....	C. Gosling.....	448,610	Mar. 17	2190	548	54	1552
Finger-ring.....	C. Staiger.....	448,892	Mar. 24	2643	664	54	1646
Finisher-press.....	J. H. McGowan.....	447,003	Feb. 24	2439	606	54	1013
Finishing or cleaning surfaces. Apparatus for.....	A. Bryce.....	446,961	Feb. 24	2374	591	54	1001
Fire-alarm.....	A. Biehet and R. W. Whitney.....	463,570	Nov. 17	2145	566	57	983
Fire alarm and extinguisher system. Auxiliary.....	E. L. Slocum.....	449,829	Apr. 7	224	75, 76	55	57
Fire-alarm and other purposes. Visual indicator for.....	M. G. Crane and F. W. Cole.....	452,165	May 12	1171	296	55	802
Fire-alarm and telephone system.....	S. W. Ludlow.....	450,245	Apr. 14	907	224	55	180
Fire-alarm and telephone system.....	S. W. Ludlow.....	450,466	Apr. 14	1243	304	55	243
Fire-alarm apparatus.....	H. A. Chase and H. F. Eaton.....	455,812	July 14	850	223	56	171
Fire-alarm apparatus.....	W. C. Shaffer.....	461,371	Oct. 13	1294	327	57	258
Fire-alarm. Automatic.....	J. B. Deen.....	445,930	Feb. 3	675	165	54	644
Fire-alarm box.....	E. R. Wilder.....	462,786	Nov. 10	894	234	57	732
Fire-alarm box. Non-interfering.....	F. F. Loomis.....	461,169	Oct. 13	951	245	57	189
Fire-alarm. Electric.....	M. M. Braun.....	453,723	June 9	860	222	55	1318
Fire-alarm. Electrical.....	B. W. Leonard.....	454,746	June 23	2381	612	55	1624
Fire-alarm. Pneumatic.....	A. Goldstein.....	446,863	Feb. 24	2206	549	54	971
Fire-alarm signal-box.....	W. F. Singer.....	448,684	Mar. 24	2315	580	54	1584
Fire-alarm signal-box. Non-interference.....	W. H. Kirnan.....	447,074	Feb. 24	2570	638	54	1037
Fire-alarm system. Automatic.....	G. W. Brown.....	463,608	Nov. 17	2218	584	57	997
Fire-alarm system. Automatic electric.....	W. S. and M. C. Cook and A. II. Morrow.....	460,464	Sept. 29	3002	752	56	1672
Fire-alarm system. Electric.....	H. E. Jacobs.....	466,306	Dec. 29	3689	942	57	1877
Fire-alarms. Thermo circuit-closer for electric.....	J. Wrigley and G. P. Chambers.....	463,298	Nov. 17	1714	446	57	900
Fire and water tube boiler.....	T. J. Reynolds.....	445,301	Jan. 27	2113	547	54	437
Fire-arm. Breech-loading.....	W. H. Davenport.....	465,354	Dec. 15	2161	553	57	1564
Fire-arm cleaning-rod.....	A. von Wehrstedt.....	464,099	Dec. 1	140	34	57	1163
Fire-arm lock.....	F. D. Granger.....	456,813	July 28	2430	641	56	487
Fire-arm lock.....	F. A. Hollenbeck.....	461,182	Oct. 13	973	250	57	193
Fire-arm. Magazine.....	J. M. and M. S. Browning.....	465,340	Dec. 15	2131	546	57	1558
Fire-arm. Magazine.....	A. Burgess.....	458,333	Aug. 25	2302	562	56	991
Fire-arm. Magazine.....	A. Burgess.....	463,225	Nov. 17	1597	416	57	877
Fire-arm. Magazine.....	E. Dinsmore.....	455,034	June 30	2910	740	55	1730
Fire-arm. Magazine.....	E. Dreher.....	465,248	Dec. 15	1970	503	57	1529
Fire-arm. Magazine.....	L. L. Hepburn.....	463,832	Nov. 24	2559	667	57	1070
Fire-arm. Magazine.....	W. Mason.....	454,582	June 23	2116	346	55	1575
Fire-arm. Magazine or single-loading.....	A. W. Savage.....	460,786	Oct. 6	402	97, 98	57	79
Fire-arm. Repeating.....	L. S. Harrison.....	460,533	Sept. 29	3127	782	56	1698
Fire-arm. Revolving-magazine.....	K. Krnka.....	459,874	Sept. 22	2111	530	56	1497
Fire-arm safety attachment.....	R. M. Gallaway.....	462,859	Nov. 10	1019	263	57	757
Fire-arm sight.....	F. W. Dobbell.....	462,475	Nov. 3	404	99	57	627
Fire-arm sight.....	W. Lyman.....	455,911	July 14	986	257	56	197
Fire-arms. Front sight for.....	W. L. Marble.....	451,499	May 5	88	22	55	596
Fire-arms. Magazine for breech-loading.....	L. F. Bruce.....	462,298	Nov. 3	125	31, 32	57	575
Fire-arms. Safety-lock for.....	W. H. Whitney.....	451,191	Apr. 28	2419	598	55	493
Fire-arms. Safety-lock mechanism for.....	D. B. Wesson. (Reissue).....	11,191	Sept. 15	1887	475	56	1446
Fire-arms. Safety-lock mechanism for.....	D. B. Wesson. (Reissue).....	11,192	Sept. 15	1888	475	56	1446

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Fire-arms to cavalry harness. Means for attaching.	W. F. Peel	464,890	Dec. 8	1354	340	57	1403
Fire-armor	W. H. Finn and J. Pappa	446,131	Feb. 10	1014	250	54	717
Fire-bar. Locking.	D. J. Morgan	451,652	May 5	319	77	55	639
Fire-box. Steam-generating.	A. Peick	458,593	Sept. 1	70	15	56	1079
Fire-chamber ventilator.	P. Abrahamson	458,330	Aug. 25	2297	561	56	990
Fire-curtain	W. R. Monroe	445,337	Jan. 27	2171	562	54	449
Fire-engine and hose-wagon. Combined.	C. T. Holloway	464,281	Dec. 1	440	105	57	1218
Fire-engine. Electric.	M. W. Dewey	464,244	Dec. 1	373	91	57	1204
Fire-engine. Electric	M. W. Dewey	446,703	Feb. 17	1946	{ 485 486 }	54	909
Fire-engine. Stationary.	E. Hoxie.	466,269	Dec. 29	3628	928	57	1866
Fire-escape	C. J. Applequist.	460,938	Oct. 13	625	161	57	129
Fire-escape	I. H. Athey	456,281	July 21	1543	410	56	312
Fire-escape	I. H. Athey	456,282	July 21	1545	410	56	313
Fire-escape	J. Berg	456,132	July 21	1306	344	56	267
Fire-escape	H. S. Bliss	456,532	July 21	1963	517	56	391
Fire-escape	A. R. Brandt	454,325	June 16	1713	447	55	1492
Fire-escape	E. W. Bullard	448,176	Mar. 10	1463	373	54	1406
Fire-escape	C. J. Clark	456,939	Aug. 4	14	4	56	535
Fire-escape	S. A. de Castilho	451,852	May 5	613	152	55	696
Fire-escape	E. W. Dixon	465,464	Dec. 22	2324	597	57	1606
Fire-escape	T. Ellison	462,244	Nov. 3	39	10	57	559
Fire-escape	G. C. Foose	459,493	Sept. 15	1495	375	56	1372
Fire-escape	C. M. Fowler	461,528	Oct. 20	1614	394	57	324
Fire-escape	G. P. Goldthwait	449,319	Mar. 31	3325	838	54	1782
Fire-escape	A. G. Gordon	448,227	Mar. 17	1559	398	54	1433
Fire-escape	C. G. Grunz	449,475	Mar. 31	3602	907	54	1835
Fire-escape	C. G. Grunz	459,285	Sept. 8	1158	282	56	1298
Fire-escape	L. A. Haight	463,243	Nov. 17	1627	424	57	884
Fire-escape	W. B. Henning	462,081	Oct. 27	2480	615	57	497
Fire-escape	J. F. Hill	462,866	Nov. 10	1031	266	57	759
Fire-escape	T. H. Jennings and J. K. Fagan.	450,621	Apr. 21	1481	{ 363 364 }	55	299
Fire-escape	J. H. Kennedy	461,682	Oct. 20	1852	459	57	368
Fire-escape	J. M. Kimball and M. E. West	458,023	Aug. 18	1799	469	56	888
Fire-escape	J. Koch and F. Adenauer	451,939	May 12	768	194	55	731
Fire-escape	M. Makely	457,285	Aug. 4	566	150	56	638
Fire-escape	W. H. McBeth.	449,859	Apr. 7	328	84	55	66
Fire-escape	I. Mills	460,647	Oct. 6	181	46	57	38
Fire-escape	H. C. Moir	444,670	Jan. 13	1080	280	54	221
Fire-escape	H. Mullenex	455,232	June 30	3244	823	55	1795
Fire-escape	G. Muller	446,001	Feb. 10	807	195	54	678
Fire-escape	N. Newman	459,613	Sept. 15	1693	425	56	1408
Fire-escape	L. T. Nichols	452,280	May 12	1345	335	55	836
Fire-escape	M. O'Reilly	459,304	Sept. 8	1183	288	56	1304
Fire-escape	G. W. Olmsted	450,796	Apr. 21	1781	433	55	363
Fire-escape	C. C. Rogers	457,608	Aug. 11	1119	285	56	750
Fire-escape	W. O. Rutledge.	455,641	July 7	555	144	56	108
Fire-escape	C. Schneider and B. Maschino	456,003	July 14	1127	296	56	222
Fire-escape	F. Schnell, Sr.	446,295	Feb. 10	1319	321	54	773
Fire-escape	H. Schwannecke	464,900	Dec. 8	1367	343	57	1405
Fire-escape	C. F. Shain	452,924	May 26	2388	604	55	1052
Fire-escape	A. R. Shannon	463,670	Nov. 24	2320	609	57	1024
Fire-escape	J. F. Shaw	455,364	July 7	101	29	56	23
Fire-escape	S. M. Stevenson	444,308	Jan. 6	513	134	54	102
Fire-escape	S. Taft	459,228	Sept. 8	1070	260	56	1280
Fire-escape	A. J. Tallas and A. Swenson	453,134	May 26	2737	690	55	1120
Fire-escape	P. Thoresen	459,319	Sept. 8	1205	294	56	1308
Fire-escape	H. Vieregg	450,899	Apr. 21	1943	477	55	392
Fire-escape	H. Vieregg	456,388	July 21	1728	457	56	346
Fire-escape	L. H. White	453,951	June 9	1169	305	55	1379
Fire-escape	E. R. Whittier	448,101	Mar. 10	1347	344	54	1382
Fire-escape	H. Wilson	447,501	Mar. 3	392	95	54	1191
Fire-escape	A. Wood.	444,404	Jan. 6	661	{ 171 172 }	54	131
Fire-escape	W. H. Wyland	444,788	Jan. 13	1263	327	54	254
Fire-escape	R. M. Yorks	449,458	Mar. 31	3573	900	54	1829
Fire-escape and elevator	B. W. Flanders	453,044	May 26	2584	653	55	1090
Fire-escape and extension-ladder. Hydraulic	J. H. McPartland	456,382	July 21	1721	455	56	345
Fire-escape and hoist. Combined.	C. F. Ernst	461,499	Oct. 20	1559	{ 382 383 }	57	314
Fire-escape ladder	E. Eder	444,607	Jan. 13	982	255	54	203
Fire-escape or chain ladder	N. Butterfield	449,518	Mar. 31	3662	920	54	1847
Fire-escape. Portable	W. Houghton and A. Brown.	459,963	Sept. 22	2241	563	56	1520
Fire-extinguisher	J. D. Berry	449,195	Mar. 31	3113	785	54	1745
Fire-extinguisher	H. H. Butler	461,421	Oct. 20	1378	349	57	821
Fire-extinguisher	G. E. Davis	463,725	Nov. 24	2415	633	57	1042
Fire-extinguisher	G. H. Downing	465,922	Dec. 29	3059	784	57	1757
Fire-extinguisher	L. D. Fuller	465,757	Dec. 22	2792	715	57	1696
Fire-extinguisher	G. W. Hogle	455,209	June 30	3216	817	55	1790
Fire-extinguisher	H. C. Johnson	458,171	Aug. 25	2024	525	56	939
Fire-extinguisher	C. M. Radford	465,801	Dec. 22	2853	731	57	1709
Fire-extinguisher	J. Wolstencroft and W. H. Soley	461,089	Oct. 13	638	216	57	168
Fire-extinguisher. Automatic.	C. D. Harsin	465,851	Dec. 29	2942	752	57	1734
Fire-extinguisher. Automatic.	T. W. Kreitz and A. Rosenbusch	450,161	Apr. 14	758	192	55	154
Fire-extinguisher. Automatic.	R. W. Newton	449,380	Mar. 31	3438	865	54	1803
Fire-extinguisher. Automatic.	R. H. Price	460,182	Sept. 29	2580	643	56	1592
Fire-extinguisher. Automatic.	T. G. Turner	456,451	July 21	1832	486	56	366
Fire-extinguisher. Chemical	E. F. Steck	452,134	Aug. 18	1960	509	56	920
Fire-extinguisher for buildings. Electrical automatic.	W. H. Soley	461,087	Oct. 13	835	215	57	168
Fire-extinguisher for car-heaters.	S. H. Harrington	456,289	July 21	1567	414	56	316
Fire-extinguisher head. Automatic	W. F. Singer	451,250	Apr. 28	2504	632	55	522
Fire-extinguisher. Stationary automatic	W. F. Singer	456,500	July 21	1904	{ 503 504 }	56	379

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & g.	Vol.	Page.
Fire-extinguishing apparatus	H. C. Carver	447,601	Mar. 3	537	{132 133}	54	1218
Fire-extinguishing apparatus	J. E. Prnnty	447,476	Mar. 3	353	88	54	1184
Fire-extinguishing sprinkler and alarm. Automatic.	W. Mayall and T. Thomasson	454,914	June 30	2673	{684 685}	55	1685
Fire-extinguishing system. Automatic	G. Knowles, Jr., and G. W. Young	450,413	Apr. 14	1170	286	55	230
Fire-hose. Electric signal apparatus for.	J. F. Klumpp, Jr.	452,506	May 19	1726	434	55	915
Fire indicator and extinguishing system	S. Broichgaus	446,200	Feb. 10	1140	279	54	737
Fire-indicator. Electric	T. R. Douse	445,931	Feb. 3	677	165	54	644
Fire-iron stand	H. M. Pierce	459,936	Sept. 22	2211	555	56	1515
Fire-isolating apparatus	H. W. Johns, Jr.	445,372	Jan. 27	2216	{574 575}	54	459
Fire-kindler	R. Guenther	444,114	Jan. 6	213	51	54	43
Fire-kindler	M. Henry	457,993	Aug. 18	1754	460	56	879
Fire-lighter	H. Lutz	457,915	Aug. 18	1624	424	56	855
Fire-lighter. Automatic	L. Beach	463,437	Nov. 17	1941	506	57	943
Fire-lighter. Automatic	H. Perk	464,891	Dec. 8	1356	341	57	1403
Fire or burglar alarm	W. Henry	444,277	Jan. 6	469	120	54	93
Fire or other alarm	H. M. Browne	465,829	Dec. 29	2906	744	57	1728
Fire-place	J. P. O'Brien	446,363	Feb. 10	1411	{346 347}	54	792
Fire-place	G. R. Scates	453,734	June 9	873	227	55	1321
Fire-place fender	F. W. Keifel, Jr.	445,811	Feb. 3	506	122	54	610
Fire-place heater	N. A. Boynton	444,987	Jan. 20	1634	419	54	335
Fire-place heater	J. B. Oldershaw	449,692	Apr. 7	70	17	55	16
Fire-place heater	F. D. Woodruff	448,103	Mar. 10	1350	{345 346}	54	1383
Fire-place. Heating and radiating	D. Tracy	462,748	Nov. 10	830	218	57	720
Fire-place hood	L. E. Clawson	449,347	Mar. 31	3374	850	54	1791
Fire-place hood	R. Marsh	452,868	May 26	2293	575	55	1034
Fire-place hood	J. S. Wallace	462,520	Nov. 3	468	114	57	640
Fire-place lining	J. F. Hewitt	463,278	Nov. 17	1682	439	57	894
Fire-places. Sectional fire-board and damper connection for	J. Wisdom	463,208	Nov. 17	1572	410	57	873
Fire-proof and water-proof tube, roofing, wall, and lining	P. Kraus	466,246	Dec. 29	3587	917	57	1858
Fire-proof structure	F. P. Meyenberg	460,209	Sept. 29	2621	655	56	1600
Fire-proof ventilator and beater	B. Sufron	457,233	Aug. 4	471	124	56	621
Fire-protecting apparatus for buildings	W. C. Goss	465,818	Dec. 22	2881	737	57	1714
Fire-protector	W. F. Bean, F. W. Dunnell, and G. B. Noyes.	450,595	Apr. 14	1429	351	55	281
Fire-shield	G. Parker	461,983	Oct. 27	2345	581	57	471
Fire-sprinkler. Automatic	J. F. Byers	450,574	Apr. 14	1388	343	55	274
Fire-works. Machine for charging	G. W. Street	450,982	Apr. 21	2079	513	55	419
Fires. Apparatus for preventing the spread of	G. H. Fox	461,913	Oct. 27	2237	553	57	451
Fires. Extinguishing	G. Dickson and D. A. Jones	458,561	Sept. 1	21	4	56	1070
Fires. Priming-machine for kindling	M. Hett	445,261	Jan. 27	2067	533	54	427
Fireman's smoke-protector	W. Bader	456,687	July 28	2213	587	56	448
Fish alive. Apparatus for preserving	W. Adams, Jr., and J. Maret	445,131	Jan. 20	1849	479	54	377
Fish-bite alarm	E. Matzenauer	461,586	Oct. 20	1700	415	57	340
Fish-harvester	R. Yoakum	450,306	Apr. 14	989	{245 246}	55	196
Fish-hook	M. M. Cass, Jr.	446,827	Feb. 17	2138	531	54	950
Fish-hook	J. T. Eichelberger	463,032	Nov. 10	1283	332	57	809
Fish-hook	A. G. Mack	454,580	June 23	2114	545	55	1574
Fish-hook	A. G. Mack	454,581	June 23	2115	545	55	1574
Fish-hook	A. G. Mack	454,982	June 30	2816	717	55	1712
Fish-hook	F. J. Meinhardt	465,940	Dec. 29	3089	791	57	1763
Fish-hook	J. M. Munn	450,317	Apr. 14	1013	250	55	201
Fish-hook	J. T. Prior	456,776	July 28	2375	624	56	477
Fish-hook	J. Stretch	444,656	Jan. 13	1050	273	54	216
Fish-hook attachment	A. Angell	456,931	Aug. 4	4	1	56	533
Fish-line reel	J. Knudsen	465,579	Dec. 22	2527	644	57	1644
Fish-line reel	C. F. Loomis	459,511	Sept. 15	1526	381	56	1378
Fish-net sinker	C. Leiding	460,142	Sept. 29	2524	628	56	1581
Fish-plate	H. W. Libbey	461,387	Oct. 13	1324	334	57	264
Fish-plate and nut. Combined	T. Barrett and E. A. Copp	449,659	Apr. 7	9	2	55	4
Fish-preserve dam	S. McElroy	450,490	Apr. 14	1283	314	55	252
Fish-tank or aquarium	G. P. A. Gunther	460,810	Oct. 6	430	107	57	85
Fishing-bait. Artificial	M. Carswell	449,519	Mar. 31	3663	920	54	1847
Fishing-boat attachment	P. Costa	456,720	July 28	2272	602	56	459
Fishing-float	L. C. Cummins	457,510	Aug. 11	972	248	56	721
Fishing-line float	P. M. Papin	458,129	Aug. 18	1955	507	56	919
Fishing-lines. Drying-reel for	F. M. Abbott	459,669	Sept. 15	1790	450	56	1427
Fishing-net	J. Heftner and R. Stöckel	458,456	Aug. 25	2496	607	56	1027
Fishing-reel	W. H. Atkinson	463,377	Nov. 17	1846	483	57	925
Fishing-reel	A. B. Hendryx	445,403	Jan. 27	2265	588	54	468
Fishing-reel	A. B. Hendryx	459,581	Sept. 15	1639	410	56	1399
Fishing-reel	A. F. and W. Meisselbach	462,360	Nov. 3	231	57	57	594
Fishing-reel	C. H. Miller	463,319	Nov. 17	1749	458	57	906
Fishing-reel	J. B. Moserop	446,102	Feb. 10	965	238	54	707
Fishing-reel	E. B. Porter	446,467	Feb. 17	1590	391	54	841
Fishing-reel	P. H. Yawman	454,319	June 16	1704	445	55	1490
Fishing-rod	J. F. Marsters	462,822	Nov. 10	956	249	57	745
Fishing-rod	C. Oberly	461,106	Oct. 13	860	221	57	173
Fishing-rod	L. Wallace	460,272	Sept. 29	2723	{678 679}	56	1619
Fishing rod and cane	M. O. Felker	465,254	Dec. 15	1977	505	57	1530
Fishing-rod support	S. Hall	448,028	Mar. 10	1246	317	54	1362
Fishing-seine	M. E. Jones	462,258	Nov. 3	56	14	57	563
Fishing-tackle	I. Bushong	449,202	Mar. 31	3121	787	54	1747
Fishing. Tilt-up for	O. Hackett	446,596	Feb. 17	1779	440	54	878
Fistula-ligatures. Device for applying	M. M. Brown	454,327	June 16	1715	448	55	1492
Flange-and-collar coupling	J. J. Hogan	448,717	Mar. 24	2375	594	54	1596

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Flange-wrench	E. Harper and P. G. Metzler	466,332	Dec. 29	3567	913	57	1855
Flanger. Rotary	E. P. Caldwell	454,110	June 16	1393	364	55	1429
Flanging-machine	C. G. Barth and W. L. Clark	459,345	Sept. 8	1254	309	56	1317
Flash-light. Magnesium	O. Doehn	451,853	May 5	614	152	55	696
Flask: See Molder's flask. Molding-flask.							
Flat-iron and heater therefor	W. Hess, Jr.	462,131	Oct. 27	2568	638	57	514
Flax brake and scutcher	A. Morison	463,125	Nov. 10	1444	{ 373 374 }	57	840
Flax, hemp, jute, wool, and other fibers. Machine for preparing	A. T. and F. W. Lawson and S. Dear	443,999	Jan. 6	21	5, 6	54	7
Flax-scutcher	J. McGrath and G. Y. Smith	460,303	Sept. 29	2767	{ 689 690 }	56	1628
Flax-thrashing machine	T. Doolan	458,269	Aug. 25	2201	538	56	972
Flier. Automatic	G. R. Ferrario	459,747	Sept. 22	1913	482	56	1457
Fliers. Making steel fly-frame	J. A. V. Smith	453,269	June 2	140	39	55	1174
Fliers. Manufacture of centrifugal pressers for speeder	B. F. Nicholas	452,647	May 19	1945	488	53	958
Float	C. Frattini	450,408	Apr. 14	1165	284	55	229
Float	J. F. Guild	461,383	Oct. 13	1313	{ 331 332 }	57	262
Float	A. J. Wright	450,856	Apr. 21	1884	461	55	382
Float	A. J. Wright	450,857	Apr. 21	1886	461	55	382
Flood-gate	T. F. Emans	460,854	Oct. 6	488	125	57	97
Flood-gate	J. Friend	457,434	Aug. 11	845	219	56	698
Flood-gate	L. L. Gray	447,679	Mar. 3	645	160	54	1240
Flood-gate	J. Hirsch	461,114	Oct. 13	868	224	57	174
Flood-gate	R. J. Parrish	459,709	Sept. 15	1850	465	56	1439
Flood-gate	J. Shielabarger	457,623	Aug. 11	1143	292	56	755
Flood-gate. Automatic	J. C. Rodgers	451,953	May 12	787	199	55	735
Floor	H. Herrmann	445,779	Feb. 3	440	109	54	598
Floor-clamp	E. A. Schade	466,142	Dec. 29	3438	880	57	1830
Floor-covering	R. P. Flynn	460,249	Sept. 29	2674		56	1611
Floor. Fire-proof	F. Purness	444,935	Jan. 20	1552	398	54	318
Floor. Fire-proof	T. A. Lee	461,030	Oct. 13	752	194	57	154
Floor-jack	G. Bowler	454,635	June 23	2221	572	55	1592
Floor or roof. Fire-proof	T. A. Lee	461,029	Oct. 13	753	194	57	153
Floor-scrubber	V. A. Miller	464,376	Dec. 1	578	141	57	1244
Floor-set	N. B. Marston	460,790	Oct. 6	408	99	57	80
Floor-sweeper	E. K. Herr	465,930	Dec. 29	3069	787	57	1760
Floor-washing machine	L. Graham	446,445	Feb. 17	1558	383	54	834
Floors or roofs. Artificial fire-proof joist for	T. A. Lee	461,028	Oct. 13	751	194	57	153
Floors or the surface of lumber. Machine for dressing	R. L. Patterson	447,160	Feb. 24	2735	677	54	1068
Floors or walls. Construction of	P. H. Jackson	462,437	Nov. 3	352	87	57	617
Flooring	J. D. Finley	462,480	Nov. 3	410	100	57	628
Flooring-gage	J. F. Welch	465,121	Dec. 15	1779	449	57	1492
Flooring-joists. Bridging for	F. H. Moore	459,900	Sept. 22	2163	544	56	1505
Floss silk and tooth-picks and cutting attachments. Holder for	E. R. Pettit	465,677	Dec. 22	2678	683	57	1673
Flour and cereal testing case	J. W. Burk	447,661	Mar. 3	621	154	54	1235
Flour and meal safe	F. Beane	451,362	Apr. 28	2678	663	55	543
Flour bin and sifter	J. D. Field	456,806	July 25	2418	638	56	486
Flour-bolt	O. M. Morse	456,584	July 28	2043	540	56	414
Flour-bolt	O. M. Morse	457,923	Aug. 18	1640	429	56	858
Flour-bolt	O. M. Morse	458,305	Aug. 25	2258	551	56	982
Flour-bolt	C. A. Schied	446,155	Feb. 10	1060	260	54	724
Flour-bolt	L. I. Ziegler	446,503	Feb. 17	1650	403	54	852
Flour bolt and dresser	F. P. Trautwein	448,283	Mar. 17	1669	423	54	1454
Flour-bolting apparatus	V. Monnier	448,538	Mar. 17	2063	517	54	1529
Flour-bolting machine	J. M. Finch	460,915	Oct. 6	590	150	57	115
Flour cabinet and table. Combined	J. H. Billing	465,108	Dec. 15	1754	443	57	1488
Flour. Machine for scalping and bolting	J. Metherell	457,656	Aug. 11	1181	{ 303 304 }	56	762
Flour or meal bin and sifter	W. H. Hammer	444,351	Jan. 6	575	147	54	114
Flour-packer	W. D. Gray	465,473	Dec. 22	2336	{ 599 600 }	57	1609
Flour-packer	M. W. Lipe	458,327	Aug. 25	2293	560	56	989
Flour-packers. Clutch mechanism for	H. A. Barnard	462,192	Oct. 27	2663	667	57	532
Flour. Preparing	E. H. Dunn	449,794	Apr. 7	238		55	48
Flour receiver and sifter	W. H. Reynolds	448,673	Mar. 24	2297	576	54	1581
Flour-receptacle	F. Schafstall	452,192	Aug. 25	2054	532	56	945
Flower-holder	J. Martin	448,975	Mar. 24	2764	698	54	1670
Flower-holder	K. B. Tudor	451,645	May 5	309	75	55	637
Flower-holder and fly-trap. Combined	J. Rosenfeld	455,888	July 14	955	249	56	192
Flower-pot	H. H. McIlhiney	446,460	Feb. 17	1582	389	54	839
Flower-pot	A. Staley	465,219	Dec. 15	1927	490	57	1521
Flower-pot. Folding	M. H. Piper	448,143	Mar. 10	1408	360	54	1395
Flower-pot machine	C. McDonagh	444,009	Jan. 6	42	12	54	11
Flower-stand. Folding	C. A. Gifford	450,146	Apr. 14	735	184	55	149
Flue-cleaner	E. T. Bull	459,346	Sept. 8	1256	309	56	1317
Flue-cleaner	T. Burke	465,590	Dec. 22	2545	649	57	1648
Flue-cleaner	J. O. Drennen	464,738	Dec. 8	1214	302	57	1375
Flue-cleaner	J. T. Mackay	449,080	Mar. 24	2920	741	54	1701
Flue. Chimney	W. J. Fryer, Jr.	462,041	Oct. 27	2428	602	57	487
Flue-hole cutter	W. R. Craig	448,126	Mar. 10	1385	354	54	1390
Flue scraper. Boiler	G. R. Ford	458,892	Sept. 1	543	132	56	1169
Flue-stopper	Z. T. Hall	463,043	Nov. 10	1300	336	57	812
Flues or pipes. Casing for hot-air	J. A. Palmer	457,455	Aug. 11	879	227	56	704
Fluid-graduating device	W. F. Richards	445,254	Jan. 27	2055	{ 529 530 }	54	425
Fluid-meter	C. N. Dutton	460,084	Sept. 22	2425	{ 606 607 }	56	1555
Fluid-meter	O. C. Pudan	461,619	Oct. 20	1752	{ 431 432 }	57	349

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Fluid-meter.....	O. C. Puda.....	461,799	Oct. 20	2049	{ 505 506	{ 57	405
Fluid-meter.....	E. Raud.....	451,881	May 5	658	{ 166 167	{ 55	704
Fluid-meter.....	E. Raud.....	451,882	May 5	660	{ 167 168	{ 55	704
Fluid-meter.....	J. A. Tilden.....	457,294	Aug. 4	582	{ 153 154	{ 56	641
Fluid-meter. Rotary.....	H. H. Sporton and E. White.....	449,009	Mar. 24	2817	{ 713 714	{ 54	1680
Fluid-meter. Rotary.....	J. A. Tilden.....	457,295	Aug. 4	583	{ 154	{ 56	641
Fluid-motor.....	J. P. and W. A. Stevenson.....	450,981	Apr. 21	2078	{ 513	{ 55	418
Flume or conduit.....	M. H. Laybourn.....	444,496	Jan. 13	818	{ 213	{ 54	171
Flush-bolt. Corner.....	P. Forg.....	451,474	May 5	45	{ 11	{ 55	588
Flush-tank.....	S. W. Miller.....	449,083	Mar. 24	2929	{ 742	{ 54	1702
Flush-tank. Automatic.....	J. Scott.....	450,798	Apr. 21	1783	{ 433 434	{ 55	363
Flushing device.....	J. C. Spencer.....	465,567	Dec. 22	2505	{ 639	{ 57	1640
Flushing device for water-closets, &c.....	P. F. Britt.....	449,728	Apr. 7	131	{ 33	{ 55	27
Flushing siphons. Valve-operating mechanism for.....	C. Sullivan.....	449,390	Mar. 31	3453	{ 869	{ 54	1806
Flushing-tank.....	G. W. Keyser.....	460,536	Sept. 29	3137	{ 764	{ 56	1700
Flushing-tank.....	J. Totham.....	446,903	Feb. 24	2294	{ 571	{ 54	986
Flushing-tank. Pneumatic.....	J. E. Boyle.....	461,213	Oct. 13	1036	{ 263 264	{ 57	205
Flushing tanks. Siphon for.....	H. T. Bush.....	458,044	Aug. 18	1232	{ 477	{ 56	895
Flushing-tanks. Siphon for.....	H. P. Cope.....	450,557	Apr. 14	1369	{ 338	{ 55	270
Flute.....	K. F. W. Guenther.....	444,830	Jan. 20	1336	{ 347	{ 54	278
Fly-book.....	J. S. Benn.....	444,272	Jan. 6	464	{ 118	{ 54	92
Fly-book.....	H. G. Preston.....	461,921	Oct. 27	2256	{ 558	{ 57	455
Fly-brush.....	H. Miller.....	451,290	Apr. 28	2579	{ 636	{ 55	525
Fly-brush.....	J. Russell.....	444,963	Jan. 20	1601	{ 409	{ 54	328
Fly-frightener.....	J. Bosworth.....	447,755	Mar. 10	775	{ 192	{ 54	1272
Fly-net. Horse.....	W. Kootz.....	460,088	Sept. 22	2434	{ 608	{ 56	1556
Fly-paper package.....	E. F. Baker.....	459,188	Sept. 8	1010	{ 247	{ 56	1268
Fly-paper. Sticky.....	H. W. Stecher.....	447,121	Feb. 24	2638	{ 655	{ 54	1051
Fly-paper. Sticky.....	O. and W. Thum.....	466,199	Dec. 29	3517	{ 900	{ 57	1845
Fly-poison support.....	M. Mandel.....	463,636	Nov. 24	2269	{ 597	{ 57	1015
Fly-trap.....	J. Reinmann.....	456,342	July 21	1645	{ 435	{ 56	331
Flying-machine.....	B. F. Barnes.....	460,194	Sept. 29	2596	{ 647 648	{ 56	1595
Fodder-binder.....	C. W. Gillis.....	449,072	Mar. 24	2910	{ 738	{ 54	1699
Fodder-carrier.....	W. R. Harrison.....	448,857	Mar. 24	2600	{ 652 653	{ 54	1638
Fog-horn.....	W. Le Blanc.....	454,280	June 16	1644	{ 432	{ 55	1478
Fog-signal.....	H. G. Maloney.....	464,375	Dec. 1	577	{ 141	{ 57	1243
Folding box.....	J. Hownestine.....	453,479	June 2	479	{ 124	{ 55	1239
Folding box.....	S. L. Saunders.....	450,194	Apr. 14	801	{ 203	{ 55	163
Folding chair.....	C. F. Batt.....	464,670	Dec. 8	1019	{ 255	{ 57	1339
Folding chair.....	J. W. Bowen.....	445,156	Jan. 27	1903	{ 491	{ 54	396
Folding chair.....	H. Forsyth.....	451,475	May 5	46	{ 12	{ 55	588
Folding chair.....	A. F. Jones.....	457,780	Aug. 18	1392	{ 360	{ 56	812
Folding chair.....	C. C. Lockstaedt.....	454,912	June 30	2669	{ 684	{ 55	1684
Folding chair.....	H. Miller.....	444,101	Jan. 6	190	{ 47	{ 54	39
Folding chair.....	J. G. Nicolay.....	445,190	Jan. 27	1955	{ 506	{ 54	406
Folding chair.....	C. H. Orcutt.....	444,011	Jan. 6	44	{ 12	{ 54	12
Folding chair.....	C. T. Segar.....	465,500	Dec. 22	2388	{ 611	{ 57	1618
Folding cup.....	H. R. Haynes.....	446,774	Feb. 17	2054	{ 512	{ 54	932
Folding gate.....	C. Bayer and P. Scherbner.....	455,960	July 14	1064	{ 279	{ 56	211
Folding gate.....	W. R. Pitt.....	444,765	Jan. 13	1235	{ 321	{ 54	250
Folding-machine.....	C. W. Shippee.....	463,170	Nov. 17	1518	{ 394 395	{ 57	862
Folding-machine.....	T. Stebbins and J. R. McDonald.....	455,065	June 30	2975	{ 757 758	{ 55	1744
Folding-machine.....	G. L. Winship.....	458,008	Aug. 18	1782	{ 465 466	{ 56	885
Folding-machines. Circular assembling device for.....	T. Stebbins and J. R. McDonald.....	460,165	Sept. 29	2554	{ 637 638	{ 56	1587
Folding mechanism.....	L. C. Crowell.....	453,395	June 2	330	{ 87	{ 55	1209
Folding rack.....	W. W. Brinkerhoff.....	461,256	Oct. 13	1103	{ 261	{ 57	220
Folding rack.....	E. J. Tracy.....	459,847	Sept. 22	2063	{ 518 519	{ 56	1487
Folding rack. Spring.....	I. W. Heysinger.....	463,680	Nov. 24	2335	{ 613	{ 57	1027
Folding screen.....	J. W. Campbell.....	447,461	Mar. 3	314	{ 78	{ 54	1177
Folding-seat brace.....	A. B. Milliken.....	464,511	Dec. 8	781	{ 191	{ 57	1293
Folding table.....	A. Claypool.....	462,236	Nov. 3	23	{ 5	{ 57	556
Folding table.....	H. H. Cummer.....	455,681	July 7	614	{ 161	{ 56	119
Folding table.....	H. H. Wiggers.....	459,427	Sept. 15	1399	{ 349	{ 56	1354
Food and producing the same. Cereal.....	J. A. Currie.....	460,320	Sept. 29	2795	{ 696	{ 56	1634
Food compound.....	G. F. Orway.....	456,903	July 28	2575	{ 56	{ 54	514
Food-mill.....	J. D. Smith and T. H. Duhart.....	464,832	Dec. 8	1270	{ 318	{ 57	1386
Food, &c. Package for liquid.....	E. H. Bartley and W. F. Campbell.....	456,934	Aug. 4	8	{ 2	{ 56	534
Food storing and preserving apparatus.....	L. Smith.....	446,024	Feb. 10	835	{ 201	{ 54	683
Food storing and preserving apparatus.....	L. Smith.....	446,025	Feb. 10	837	{ 202	{ 54	683
Foot. Artificial.....	B. F. Ronuds.....	457,823	Aug. 18	1463	{ 381	{ 56	825
Foot. Artificial.....	J. F. Rowley.....	456,206	July 21	1424	{ 377	{ 56	290
Foot-rest.....	T. N. Derby.....	456,557	July 28	2003	{ 529	{ 56	407
Foot-warmer.....	W. M. Carr, E. B. Hahn, and J. B. Jackson.....	463,094	Nov. 10	1381	{ 357	{ 57	828
Foot-warmer.....	W. A. Randle.....	444,369	Jan. 6	460	{ 117	{ 54	91
Foot-wear.....	J. D. Chantler.....	455,303	July 7	12	{ 3	{ 56	5
Force-accumulator.....	W. Schrader.....	456,525	July 21	1953	{ 514	{ 56	3-9
Forceps-joint.....	F. A. Reichardt.....	458,254	Aug. 25	2160	{ 530	{ 56	965
Forge.....	J. and P. Delangio.....	456,232	July 21	1473	{ 392	{ 56	298
Forge.....	F. Myers.....	457,892	Aug. 18	1588	{ 413	{ 56	847

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Di'g.	Vol.	Page.
Forge. Electric	E. E. Angell	466,132	Dec. 29	3424	877	57	1827
Forge. Electric	E. E. Angell	466,133	Dec. 29	3425	877 878	57	1828
Forge-furnace	J. H. Sternbergh	452,007	May 12	874	222 223	55	752
Forged wheel and making the same	S. M. Vauclain	462,606	Nov. 3	605	150	57	667
Forging and finishing circular articles. Apparatus for	C. Fairbairn	451,470	May 5	39	10	55	586
Forging car-coupling hooks. Die for	J. Green	456,892	July 28	2563	673	56	511
Forging car-wheels. Press for	W. A. Pearson	449,824	Apr. 7	278	73.73	55	55
Forging die. Wheel	S. M. Vauclain	462,605	Nov. 3	603	149	57	667
Forging-machine	A. F. P. Malin	455,598	July 7	486	126 127	56	94
Forging machine. Nail	C. W. Emery	449,526	Mar. 31	3671	923	54	1849
Forging-machines. Electric blank-heater for	G. D. Burton and E. E. Angell	444,914	Jan. 20	1517	390 391	54	312
Forgings non-circular in cross-section. Making rolled	G. F. Simonds	446,934	Feb. 24	2338	580 581	54	994
Fork: See Agricultural fork. Loom-weft fork. Culinary fork. Manure-fork. Feed-fork. Winker-fork. Hay-fork.							
Fork	T. Häusler	456,032	July 14	1171	307	56	231
Fork and rake. Combined	E. R. McCort	453,776	June 9	946	245	55	1335
Fork-guard	S. Nowill	447,644	Mar. 3	605	149	54	1232
Fork-rolling machine	J. B. Phillips	449,058	Mar. 24	2891	734	54	1695
Forming-machine	J. H. Peters	453,657	June 9	756	195	55	1299
Foundations. Strengthening and building	F. Baumann	457,144	Aug. 4	322	83	56	595
Fountain: See Drinking-fountain.							
Fountain	L. Bellamy	463,616	Nov. 24	2327	590	57	1009
Fracture apparatus	B. H. Daggett	449,436	Mar. 31	3538	892	54	1823
Frame: See Adjustable frame. Mosquito-canopy frame. Awning-frame. Mosquito-net frame. Bag-frame. Net-frame. Belt-frame. Photographic-printing Bicycle spring-frame. frame. Box-frame. Picture-frame. Braid-frame. Picture-frame. Bucket-suspending Pocket-book frame. frame. Pool-ball frame. Canopy-frame. Post drill-frame. Canvas-stretcher Purse-frame. frame. Quilting-frame. Chair-seat frame. Roof-frame. Cloth-folding frame. Saw-frame. Display-frame. Sewing-machine quilting- Door and window frame. frame. screen frame. Slate-frame. Drawing-frame. Spectacle-frame. Drill-frame. Spinning-frame. Fabric-holding Table-frame. frame. Tedder-frame. Fabric-stretching Truck-frame. frame. Type-frame. Harrow-frame. Wig-frame. Label-holding frame. Window-frame. Mattress-frame. Window-screen frame. Wire frame.							
Freezing apparatus	J. Erny, Z. T. Snubers, and W. Hoos	446,252	Feb. 10	1243	304	54	758
Friction-joint. Spring	W. J. Elliott	458,228	Aug. 25	2123	550	56	958
Fringe-making machine	C. W. Arnold	451,440	Apr. 28	2799	692 693 694	55	567
Fringe-making machine	C. W. Arnold	451,441	Apr. 28	2805	695	55	567
Fringe-making machine	O. Arnold	451,423	Apr. 28	2769	685	55	560
Frog. Life and property saving derailing	A. G. Bodley and J. F. Beelman	444,039	Jan. 6	93	24	54	21
Fruit and vegetable assorter	H. H. Hinchins	465,856	Dec. 29	2950	754	57	1736
Fruit and vegetable cutter	C. H. Dana	446,379	Feb. 10	1435	352 353	54	797
Fruit and vegetable scoop and knife	E. O. Varell	456,784	July 28	2385	627	56	479
Fruit. Artificial	C. Hyde	463,900	Nov. 24	2678	697	57	1091
Fruit-bud protector	J. E. Bourne	461,204	Oct. 13	1023	259	57	203
Fruit-carrier	A. Edgar	462,242	Nov. 3	33	7	57	558
Fruit-cleaner	W. H. Perry	447,901	Mar. 10	1035	260	54	1321
Fruit-cleaning apparatus	G. L. Harris	455,564	July 7	429	114	56	83
Fruit-cleaning machine	R. A. Strong and G. R. Cooté	459,337	Sept. 8	1240	305	56	1314
Fruit-clipper	R. A. Stewart	457,679	Aug. 11	1924	314	56	770
Fruit-chipping shears	T. G. Maltby	459,409	Sept. 15	1369	343	56	1348
Fruit-drier	A. Conklin	448,846	Mar. 24	2574	646	54	1634
Fruit-evaporator	S. A. Latimer	462,144	Oct. 27	2588	645	57	518
Fruit-gatherer	A. B. Anderson	454,320	June 16	1705	445	55	1490
Fruit-gatherer	C. R. Banks	444,037	Jan. 6	87	23	54	20
Fruit-gatherer	J. A. Ferguson	452,493	May 19	1705	429	55	912
Fruit-gatherer	J. G. Harris	452,704	May 19	2033	509	55	976
Fruit-gatherer	J. Herring	459,467	Sept. 15	1455	366	56	1364
Fruit-gatherer	J. W. Howell	444,884	Jan. 20	1459	378	54	302
Fruit-gatherer	G. A. Marsh	457,516	Aug. 11	978	250	56	722
Fruit-gatherer	D. G. McClay	464,380	Dec. 1	581	143	57	1244
Fruit-gatherer	J. Reno and M. W. Wayne	462,386	Nov. 3	272	67	57	602
Fruit-gatherer	R. B. Vanderburg	463,178	Nov. 17	1530	399	57	864
Fruit-grading machine	J. T. Ish	458,422	Aug. 25	2447	595	56	1018
Fruit-knife	C. A. Sherman	457,376	Aug. 11	764	196	56	682

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Fruit-packer.....	W. A. Trescott.....	444,260	Jan. 6	447	{ 112 113 }	{ 54	88
Fruit-packing device.....	J. M. Davies.....	464,150	Dec. 1	214	51	57	1177
Fruit-picker.....	A. Fogeli.....	452,102	May 12	1063	269	55	783
Fruit-picker.....	O. P. Smith.....	459,660	Sept. 15	1779	447	56	1424
Fruit-picker.....	J. H. Woodward.....	460,903	Oct. 6	575	145	57	112
Fruit-pitter.....	W. C. Evans.....	453,042	May 26	2580	652	55	1090
Fruit-pitter.....	W. Stevenson.....	457,940	Aug. 18	1673	438	56	864
Fruit-pitting machine.....	J. Harps.....	464,128	Dec. 1	177	434	57	1171
Fruit-pitting machine.....	J. T. Ish.....	445,753	Feb. 3	390	{ 99 100 }	{ 54	590
Fruit seeder and clearer.....	L. C. Wing.....	453,685	June 9	801	205	55	1308
Fruit-sizing machine.....	J. Adams.....	458,963	Sept. 1	644	158	56	1191
Fruit slicer or cutter.....	J. H. Flickinger and L. F. Graham.....	453,859	June 9	1045	273	55	1355
Fruit steaming and bleaching device.....	C. Phelan and H. Eldridge.....	453,658	June 9	757	{ 195 196 }	{ 55	1299
Fruit-stoning machine.....	J. S. Briggs.....	460,740	Oct. 6	335	82	57	66
Fuel. Artificial.....	L. C. Bandman.....	446,845	Feb. 24	2173	.....	54	965
Fuel. Artificial.....	D. E. Bangs.....	450,924	Apr. 21	1977	.....	55	400
Fuel. Artificial.....	D. E. Bangs.....	451,358	Apr. 28	2674	.....	55	543
Fuel. Artificial.....	D. C. Fischel.....	455,492	July 7	303	.....	56	61
Fuel. Artificial.....	R. J. Schimper.....	447,138	Feb. 24	2698	.....	54	1060
Fuel burner. Liquid.....	E. de Beaucharnais.....	454,125	June 16	1414	{ 369 370 371 }	{ 55	1433
Fuel burner. Liquid.....	M. H. Brooksbank.....	448,407	Mar. 17	1872	{ 470 471 }	{ 54	1493
Fuel feeder and separator.....	W. F. Cosgrove.....	445,390	Jan. 27	2238	581	54	463
Fuel produced from lignite.....	A. Edelmann.....	465,249	Dec. 15	1972	.....	57	1530
Fuel-saving device.....	M. B. Dodge.....	444,976	Jan. 20	1616	413	54	331
Fulling-machine.....	J. W. Millet.....	448,535	Mar. 17	2061	515	54	1528
Fulling-machine.....	J. W. Millet.....	448,536	Mar. 17	2062	{ 515 516 517 }	{ 54	1529
Fulling-machine.....	J. W. Millet.....	448,537	Mar. 17	2063	{ 516 517 }	{ 54	1529
Fulling-mill.....	D. J. Kenary.....	452,058	May 12	977	249	55	769
Fumigating compound.....	C. F. Morris and T. Chenevert.....	450,522	Apr. 14	1330	.....	55	262
Fumigating trees and other plants.....	W. B. Wall, M. S. Jones, and A. D. Bishop.....	445,342	Jan. 27	2179	.....	54	451
Fumigator.....	S. P. Bozarth.....	464,419	Dec. 1	636	157	57	1255
Fumigator.....	E. Lestout, Jr.....	459,008	Sept. 8	719	176	56	1212
Fumigator.....	W. Martin.....	463,367	Nov. 17	1833	479	57	922
Funnel.....	A. Gersdorff.....	453,798	June 9	977	254	55	1241
Funnel. Indicating.....	A. Whelan.....	454,240	June 16	1583	417	55	1247
Fur bodies. Felting.....	H. W. Flag. (Reissue).....	11,213	Dec. 22	2896	.....	57	2718
Furnace:							
See Air-heating furnace.	Hearth-furnace.						
Assay-furnace.	Heating-furnace.						
Bagasse-furnace.	Heating, puddling, or boiler furnace.						
Blast-furnace.	Hot-air furnace.						
Boiler-furnace.	Hydrocarbon-furnace.						
Boiler or other furnace.	Liquid-fuel furnace.						
Cremation-furnace.	Melting-furnace.						
Crucible-furnace.	Muffle-furnace.						
Cupola-furnace.	Ore-roasting furnace.						
Disintegrating-furnace.	Portable furnace.						
Dry-kiln furnace.	Retort-furnace.						
Forge-furnace.	Reverberatory furnace.						
Garbage-furnace.	Roasting and smelting furnace.						
Garbage-burning furnace.	Rotary furnace.						
Gas-furnace.	Smelting-furnace.						
Gas-retort furnace.	Smoke-consuming furnace.						
Glass-furnace.	Steel-making furnace.						
Glass-finishing furnace.	Sulphur-furnace.						
Glass-melting furnace.	Tire-heating furnace.						
Glass-pot furnace.	Water-heating furnace.						
Welding-furnace.							
Furnace.....	A. Backus, Jr.....	463,023	Nov. 10	1270	329	57	806
Furnace.....	A. Bickelhaupt.....	454,937	June 30	2753	697	55	1696
Furnace.....	W. H. Bradley.....	456,134	July 21	1315	346	56	268
Furnace.....	N. Brayer.....	457,250	Aug. 4	507	133	56	628
Furnace.....	C. R. Burr.....	464,425	Dec. 1	641	158	57	1256
Furnace.....	T. E. Caddy.....	464,008	Dec. 1	10	3	57	1138
Furnace.....	W. L. Carter.....	459,675	Sept. 15	1799	452	56	1429
Furnace.....	E. C. Condit.....	464,241	Dec. 1	367	89, 90	57	1203
Furnace.....	C. M. Dake.....	462,396	Nov. 3	290	72	57	606
Furnace.....	E. F. Edgar.....	454,037	June 16	1291	{ 336 337 }	{ 55	1410
Furnace.....	D. H. Erdman.....	449,931	Apr. 7	429	107	55	84
Furnace.....	W. Fraser.....	465,367	Dec. 15	2181	{ 558 559 }	{ 57	1567
Furnace.....	J. Galt.....	460,469	Sept. 29	3014	755	56	1674
Furnace.....	J. Haggerty.....	465,646	Dec. 22	2629	671	57	1664
Furnace.....	W. A. Hatcher.....	445,249	Jan. 27	2043	525	54	422
Furnace.....	M. C. Hawley.....	447,179	Feb. 24	2763	{ 683 684 }	{ 54	1073
Furnace.....	E. Herrmann and L. P. Cohen.....	458,712	Sept. 1	252	60	56	1113
Furnace.....	J. H. Johnson and J. Moran.....	462,354	Nov. 3	219	53	57	593
Furnace.....	E. Kerr.....	462,876	Nov. 10	1047	{ 271 272 }	{ 57	762
Furnace.....	E. Kerr.....	462,877	Nov. 10	1048	272	57	753

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Furnace.....	J. J. and T. F. Meldrum.....	447,891	Mar. 10	1013	{ 255 256 }	54	1317
Furnace.....	J. Mitchell.....	461,444	Oct. 20	1414	357	57	288
Furnace.....	T. B. Moore.....	451,185	Apr. 28	2405	594	55	490
Furnace.....	J. Murphy.....	452,414	May 19	1575	391	55	889
Furnace.....	H. Petersen.....	444,671	Jan. 13	1082	280	54	222
Furnace.....	J. S. Roberts.....	446,539	Feb. 17	1702	{ 417 418 }	54	862
Furnace.....	J. N. Ruebhausen.....	464,187	Dec. 1	273	68	57	1187
Furnace.....	W. E. Selleck.....	462,804	Nov. 10	926	241	57	739
Furnace.....	J. Slimm.....	450,043	Apr. 7	584	145	55	112
Furnace.....	W. Swindell.....	463,176	Nov. 17	1527	{ 397 398 }	57	863
Furnace.....	W. Tomilson.....	458,295	Aug. 25	2240	548	56	979
Furnace.....	G. W. and A. W. Walker.....	458,245	Aug. 25	2147	526	56	962
Furnace.....	R. L. Walker.....	454,310	June 16	1691	442	55	1487
Furnace.....	R. M. Weir.....	459,892	Sept. 22	2142	538	56	1502
Furnace.....	G. W. Wood.....	458,207	Aug. 25	2081	{ 538 539 }	56	949
Furnace bosh-plate.....	J. Gayley.....	463,663	Nov. 24	2312	607	57	1023
Furnace bosh-plate.....	T. M. Pollock.....	450,636	Apr. 21	1543	371	55	317
Furnace bosh-plate.....	T. M. Pollock. (Reissue).....	11,209	Dec. 8	1449	364	57	1423
Furnace bosh-plate.....	J. Scott.....	452,618	May 19	1898	477	55	948
Furnace-doorway.....	H. Pinney.....	462,402	Nov. 3	302	74	57	608
Furnace-feeding device. Boiler.....	G. W. Wood.....	446,959	Feb. 24	2371	590	54	1000
Furnace fire-grate.....	L. Hopcraft.....	450,018	Apr. 7	548	136	55	106
Furnace for calcining ores.....	J. Douglas.....	458,102	Aug. 18	1915	498	56	912
Furnace for heating and other purposes.....	G. T. Bruckmann.....	461,313	Oct. 13	1189	303	57	237
Furnace for glass-works.....	E. Gobbe.....	463,149	Nov. 17	1478	{ 383 384 }	57	855
Furnace for the incineration and destruction of house garbage, town refuse, &c.....	E. W. Cracknell.....	464,171	Dec. 1	248	61	57	1182
Furnace for the manufacture of gas.....	J. A. Dubbs.....	464,934	Dec. 8	1411	356	57	1414
Furnace-grate.....	Z. F. Bryant.....	450,351	Apr. 14	1068	262	55	211
Furnace-grate.....	S. Fiske.....	466,050	Dec. 29	3295	841	57	1803
Furnace-grate.....	E. M. Hugentobler.....	465,527	Dec. 22	2440	{ 621 622 }	57	1628
Furnace-grate.....	J. Thurell.....	460,408	Sept. 29	2922	730	56	1657
Furnace-grate.....	G. W. Wood.....	458,208	Aug. 25	2082	539	56	950
Furnace-mouth.....	C. W. McDaniel.....	461,504	Oct. 20	1566	384	57	316
Furnace-regulator.....	E. J. Colby.....	444,691	Jan. 13	1110	287	54	227
Furnace-wall.....	J. Ross.....	457,371	Aug. 11	751	193	56	679
Furnaces. Apparatus for burning liquid fuel in.....	J. Falmestock.....	459,701	Sept. 15	1837	462	56	1437
Furnaces. Apparatus for charging.....	G. R. Ward.....	457,063	Aug. 4	209	50, 51	56	573
Furnaces. Apparatus for consuming smoke and sav- ing fuel in.....	G. Moffatt and S. Stuttford.....	448,156	Mar. 10	1427	364	54	1309
Furnaces. Apparatus for cooling the walls of blast- ings to.....	J. J. Fronheiser and S. W. Vaughen.....	460,006	Sept. 22	2303	578	56	1532
Furnaces. Apparatus for feeding sawdust and shav- ings to.....	T. T. Scott and J. J. Sheafor.....	460,729	Oct. 6	315	77	57	62
Furnaces. Apparatus for removing slag from.....	W. Hawdon.....	447,683	Mar. 3	654	162	54	1242
Furnaces. Bell and hopper for blast.....	B. F. Conner.....	460,849	Oct. 6	481	123	57	96
Furnaces. Burner for gas-consuming.....	E. C. Merrill.....	466,174	Dec. 29	3483	889	57	1839
Furnaces. Burning fuel in.....	E. F. Edgar.....	450,616	Apr. 21	1471	361	55	297
Furnaces. Fastening for the doors of.....	S. Darling.....	456,403	July 21	1748	462	56	350
Furnaces. Fuel-feeder for.....	R. Newton.....	447,544	Mar. 3	456	112	54	1203
Furnaces. Injector oil-burner for boiler.....	J. H. Jones.....	444,115	Jan. 6	214	51, 52	54	44
Furnaces. Means for promoting combustion in.....	J. H. O'Hara.....	459,017	Sept. 8	737	179	56	1216
Furnaces. Steam and air injector for.....	S. R. Earle.....	447,563	Mar. 3	482	118	54	1208
Furniture.....	F. W. Cowles.....	451,389	Apr. 28	2711	{ 673 674 }	55	550
Furniture.....	W. S. Goodwillie.....	445,777	Feb. 3	438	{ 108 109 }	54	597
Furniture and extension-bedstead. Combined.....	J. Braenel.....	446,729	Feb. 17	1989	496	54	918
Furniture-attaching device.....	J. Kadel and E. Dill.....	455,566	July 7	433	115	56	84
Furniture. Back and arm rest for.....	W. Liesenbein.....	457,125	Aug. 4	292	76	56	589
Furniture. Book-supporting attachment for.....	N. H. Whitten.....	454,553	June 23	2064	534	55	1565
Furniture. Boxing-thimble for packing.....	W. H. Ivers.....	462,257	Nov. 3	55	14	57	562
Furniture brace or stay.....	J. Berkey.....	454,705	June 23	2322	597	55	1613
Furniture-clamp.....	J. Benedict.....	462,888	Nov. 10	1065	276	57	766
Furniture. Combination.....	C. Polakoff and R. Lange.....	449,430	Mar. 31	3529	{ 888 889 }	54	1821
Furniture. Convertible.....	E. E. Sell.....	452,171	May 12	1184	{ 299 300 }	55	805
Furniture. Detachable leg for.....	E. B. Clark.....	451,755	May 5	483	120	55	670
Furniture-fastener.....	W. G. Jarvis.....	447,829	Mar. 10	912	227	54	1297
Furniture-leg and frame therefor. Detachable.....	C. A. Oveson.....	449,804	Apr. 7	248	63	55	50
Furniture. School.....	O. S. Garretson.....	444,630	Jan. 13	1011	263	54	209
Furniture. School.....	W. A. Ramsey.....	453,914	June 9	1122	293	55	1369
Furniture. School.....	J. M. Sauder.....	451,776	May 5	510	126	55	675
Furrower, hiller, and ridger combined.....	S. L. Allen.....	463,611	Nov. 24	2227	588	57	1008
Fuse and detonator.....	P. Ward and E. M. Gregory.....	459,321	Sept. 8	1207	295	56	1308
Fuse. Blasting.....	D. B. James.....	446,919	Feb. 24	2316	575	54	990
Fuse-block.....	A. P. Seymour.....	446,895	Feb. 24	2267	{ 563 564 }	54	982
Fuse-block and incandescent lamp. Combined.....	H. E. Swift.....	455,366	July 7	106	30	56	24
Fuse-block. Multiple.....	L. B. Favor.....	452,875	May 26	2303	581	55	1036
Fuse box. Electric.....	W. Edison.....	453,111	May 26	2702	681	55	1114
Fuse. Electric.....	G. F. Curtiss.....	449,209	Mar. 31	3131	789	54	1749
Fuse. Percussion.....	K. K. Malmström.....	451,598	May 5	230	55	55	623
Fuse-primer.....	L. S. Woodbury.....	457,391	Aug. 11	785	202	56	686
Fuse. Protective.....	H. V. Hayes and A. C. White.....	458,753	Sept. 1	309	76	56	1124
Fuse-tool.....	P. Stoves.....	464,088	Dec. 1	124	31	57	1161
Gag-block.....	W. Lewis.....	458,990	Sept. 1	687	{ 167 168 }	56	1200

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Gage:							
See Air-tension gage.	Micrometer depth-gage.						
Axle-gage.	Micrometer sheet-metal gage.						
Carpenter's gage.	Pressure-gage.						
Cigar-maker's gage.	Printing-press feed-gage.						
Countersink-gage.	Ring-gage.						
Coupler-gage.	Saw-table gage.						
Dress-skirt gage.	Sawing-machine gage.						
Drill-gage.	Scissors-gage.						
Flooring-gage.	Sewing-machine lap-seam gage.						
Hair-cutting gage.	Shoe-sole gage.						
Horseshoe-gage.	Surface-gage.						
Key-gage.	Thermal gage.						
Key-seating or splin-	Tire-gage.						
ing gage.	Track-gage.						
Lead or rule cutter	Wall-paper-trimming						
gage.	gage.						
Leather-sorting	Water-gage.						
gage.							
Machinist's gage.							
Micrometer-gage.							
Gage	C. C. Harris.....	464,867	Dec. 8	1320	330	57	1397
Gage	G. A. Hinds.....	456,331	July 21	1628	431	56	328
Gage	C. W. Morrill.....	452,677	May 19	1991	498	55	967
Gage	W. Ricketts.....	447,203	Feb. 24	2803	693	54	1081
Gage	M. Cridge.....	447,604	Mar. 3	544	135	54	1219
Gage for carpentry	J. T. Brayton.....	447,276	Feb. 24	2931	729	54	1108
Gage for determining the radius of curvature	J. T. Brayton.....	464,601	Dec. 8	910	223	57	1318
Gage for determining the radius of curvature	L. B. Doudna.....	450,738	Apr. 21	1683	408	55	344
Gage-knife	A. Pearson.....	459,489	Sept. 15	1489	374	56	1371
Galley-lock	A. Alfson and H. Jansen.....	463,325	Nov. 17	1758	460	57	908
Galley-stick. Side-locking	P. G. Williams.....	447,857	Mar. 10	961	241	54	1307
Galvanic apparatus for the human body	W. A. Crowdus.....	445,425	Jan. 27	2298	596	54	475
Galvanic battery	W. A. Crowdus.....	450,285	Apr. 14	958	238	55	191
Galvanic battery	W. A. Crowdus.....	463,247	Nov. 17	1635	426	57	885
Galvanic battery	W. A. Crowdus.....	463,248	Nov. 17	1635	426	57	885
Galvanic battery	J. Emmer, Jr.....	454,724	June 23	2349	603	55	1618
Galvanic battery	J. R. Hard.....	457,116	Aug. 4	279	73	56	587
Galvanic battery	P. Hathaway.....	454,598	June 23	2158	558	55	1581
Galvanic battery	P. Hieronymus.....	461,262	Oct. 13	1113	284	57	222
Galvanic battery	C. J. Hirlmann.....	448,798	Mar. 24	2498	625	54	1619
Galvanic battery	W. Macmillan.....	454,057	June 16	1316	343	55	1415
Galvanic battery	G. C. McCullough.....	451,948	May 12	779	198	55	734
Galvanic battery	S. Miller.....	466,177	Dec. 29	3487	{ 890 891 }	57	1840
Galvanic battery	M. W. Robinson.....	447,016	Feb. 24	2466	613	54	1018
Galvanic battery	H. C. Sample.....	455,693	July 7	636	168	56	123
Galvanic battery	C. N. Souther.....	461,965	Oct. 27	2317	575	57	466
Galvanic battery	H. P. Stoecker.....	449,299	Mar. 31	3277	830	54	1775
Galvanic battery	C. Wilms.....	450,840	Apr. 21	1856	452	55	375
Galvanized waste. Utilizing	R. J. Brice.....	448,600	Mar. 17	2172	.....	54	1549
Game	H. Davey.....	450,883	Apr. 21	1926	472	55	389
Game	M. A. Greene.....	445,016	Jan. 20	1673	430	54	343
Game	F. Huff.....	452,708	May 19	2039	511	55	977
Game	R. R. Scott and J. R. Hillman.....	449,140	Mar. 31	3024	765	54	1729
Game	C. W. Stebbins.....	446,481	Feb. 17	1612	395	54	845
Game and advertising device	F. Sanderson.....	451,956	May 12	790	200	55	736
Game apparatus	S. M. Barnett.....	454,161	June 16	1472	387	55	1445
Game apparatus	E. S. Boynton.....	450,395	Apr. 14	1140	279	55	224
Game apparatus	F. A. Byram.....	459,832	Sept. 22	2046	514	56	1484
Game apparatus	S. R. Clarke.....	454,596	June 23	2155	557	55	1580
Game apparatus	S. W. Clarke.....	448,878	Mar. 24	2625	659	54	1643
Game apparatus	F. Cole.....	446,552	Feb. 17	1721	422	54	866
Game apparatus	A. Cromwell.....	459,997	Sept. 22	2288	574	56	1529
Game apparatus	A. Cromwell.....	460,431	Sept. 29	2952	738	56	1063
Game apparatus	H. Decker.....	463,271	Nov. 17	1676	438	57	893
Game apparatus	J. Fichtner.....	459,929	Sept. 22	2202	553	56	1512
Game apparatus	C. M. Fisk.....	460,717	Oct. 6	299	73	57	59
Game apparatus	J. E. Geesaman.....	458,451	Aug. 25	2490	606	56	1026
Game apparatus	U. Greminger.....	445,260	Jan. 27	2067	533	54	427
Game apparatus	F. A. E. v. Guericke.....	465,739	Dec. 22	2758	704	57	1690
Game apparatus	A. W. Hadley and J. Hunt.....	450,781	Apr. 21	1754	426	55	358
Game apparatus	F. C. Hamilton.....	463,602	Nov. 17	2205	{ 581 582 }	57	994
Game apparatus	M. Howard.....	461,018	Oct. 13	738	{ 190 191 }	57	150
Game apparatus	C. N. Hoyt.....	453,480	June 2	480	124	55	1239
Game apparatus	J. D. Jackson.....	454,358	June 16	1762	458	55	1500
Game apparatus	W. F. Jones.....	447,247	Feb. 24	2881	715	54	1097
Game apparatus	E. Krebs.....	461,346	Oct. 13	1239	315	57	248
Game apparatus	L. Nance.....	464,035	Dec. 1	43	12	57	1145
Game apparatus	J. H. Nolan.....	458,405	Aug. 25	2425	591	56	1014
Game apparatus	F. H. Perry.....	450,108	Apr. 7	681	172	55	133
Game apparatus	D. M. Pickett.....	455,051	June 30	2951	751	55	1738
Game apparatus	W. A. Pike.....	455,431	July 7	216	55	56	44
Game apparatus	J. Prendergast.....	452,194	May 12	1214	307	55	811
Game apparatus	J. B. Reed.....	453,310	June 2	200	54	55	1185
Game apparatus	E. F. Rogers.....	463,454	Nov. 17	1958	511	57	947
Game apparatus	D. Walsh.....	457,018	Aug. 4	131	32	56	558
Game apparatus	F. B. Wood.....	459,952	Sept. 22	2229	560	56	1518
Game apparatus	E. Woodbury.....	464,469	Dec. 1	707	172	57	1270
Game apparatus. Puzzle	G. B. Shepard.....	449,708	Apr. 7	98	26	55	21
Game attachment	E. Barker.....	454,700	June 23	2315	595	55	1611

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. gr.	Vol.	Page.
Game-board.....	A. G. Brown and J. P. Crosby.....	446,320	Feb. 10	1351	{ 329 } 330	54	780
Game-board.....	W. G. Bullen.....	458,516	Aug. 25	2601	633	56	1047
Game-board.....	D. D. Harr.....	464,098	Dec. 1	140	31	57	1163
Game-board.....	C. D. Hazen.....	465,927	Dec. 29	3064	786	57	1759
Game-board.....	T. Hill.....	452,133	May 12	1117	284	55	792
Game-board.....	H. C. Manning.....	458,401	Aug. 25	2421	590	56	1013
Game-board.....	E. L. McConaughy.....	464,887	Dec. 8	1350	339	57	1402
Game-board.....	J. T. McKim.....	459,158	Sept. 8	966	235	56	1260
Game-board.....	D. H. McLean.....	457,618	Aug. 11	1137	290	56	754
Game-board.....	E. B. S. Mercer.....	462,870	Nov. 10	1037	269	57	760
Game-board.....	A. P. Pichereau.....	452,061	May 12	983	250	55	770
Game-board.....	G. M. Snow.....	456,069	July 14	1217	320	56	240
Game-board.....	J. W. Sutton.....	447,088	Feb. 24	2587	642	54	1041
Game-board.....	C. E. Swaney.....	456,171	July 21	1368	363	56	279
Game-board.....	H. Wachter.....	447,851	Mar. 10	950	238	54	1305
Game-board.....	W. E. Wise.....	451,354	Apr. 28	2668	661	55	542
Game-board.....	J. Wood.....	446,942	Feb. 24	2349	584	54	996
Game-board. Pneumatic.....	E. L. McConaughy.....	460,593	Oct. 6	76	21	57	17
Game-counter.....	W. H. Atkinson.....	463,378	Nov. 17	1850	483	57	926
Game-counter.....	G. Deimel.....	453,078	May 26	2648	668	55	1102
Game-counter.....	E. S. Hubbard.....	450,962	Apr. 21	2050	505	55	413
Game-counter.....	A. Vilaseca y Velasco.....	447,454	Mar. 3	303	76	54	1175
Game-counter.....	C. Zimmerling.....	446,701	Feb. 17	1944	485	54	909
Game-counter and pincushion. Combined.....	R. W. Johnson.....	459,532	Sept. 15	1559	389	56	1384
Game. Electric parlor.....	W. J. Gates.....	461,076	Oct. 13	821	211	57	165
Game or puzzle.....	J. J. Erin.....	454,147	June 16	1451	380	55	1440
Game or puzzle.....	W. Fickermann.....	462,211	Oct. 27	2698	679	57	538
Game or puzzle apparatus.....	C. P. Blinn.....	458,297	Aug. 25	2247	549	56	980
Game-puzzle.....	C. P. Harris.....	444,352	Jan. 6	576	147	54	114
Game-puzzle.....	C. P. Harris.....	452,642	May 19	1940	487	55	957
Game-table.....	J. P. W. Patillo.....	458,065	Aug. 18	1859	485	56	900
Games of chance. Appliance for playing.....	A. Harris.....	455,100	June 30	3028	770	55	1754
Games of skill. Device for playing.....	E. H. Richards.....	448,574	Mar. 17	2121	531	54	1540
Garbage. Apparatus for removing.....	P. J. Kearney.....	449,421	Mar. 31	3514	885	54	1818
Garbage-burning furnace.....	M. L. Davis.....	462,035	Oct. 27	2420	600	57	466
Garbage-furnace.....	A. Brownlee.....	448,115	Mar. 10	1364	349	54	1386
Garbage-receptacle.....	W. W. Taylor.....	464,533	Dec. 8	815	200	57	1299
Garbage-receptacle.....	B. F. Wise.....	463,019	Nov. 10	1261	327	57	805
Garment-clasp.....	J. H. Murch.....	447,736	Mar. 3	736	184	54	1257
Garment-clasp.....	C. C. Shelby.....	455,643	July 7	558	145	56	108
Garment-fastening.....	J. Leontin.....	447,076	Feb. 24	2573	638	54	1038
Garment-holder.....	E. L. O'Connor.....	452,727	May 19	2074	522	55	933
Garment-hook.....	F. E. De Long.....	462,472	Nov. 3	402	98	57	627
Garment-hook.....	F. E. De Long.....	462,473	Nov. 3	403	99	57	627
Garment-hook.....	J. M. Guilbert.....	461,332	Oct. 13	1216	309	57	243
Garment-hook.....	W. S. Whiting.....	455,080	June 30	3000	762	55	1748
Garment-hook.....	H. M. York.....	455,992	July 14	1108	292	56	219
Garment-presser.....	C. Flower.....	462,039	Oct. 27	2427	601	57	487
Garment-protector.....	O. F. Ostergron and A. K. Schaap.....	446,819	Feb. 17	2125	528	54	947
Garment sleeve or leg adjusting device.....	H. W. Henry.....	461,434	Oct. 20	1403	353	57	285
Garment-stand.....	W. Vogler.....	445,208	Jan. 27	1981	511	54	411
Garment-stay.....	C. W. Bell.....	444,809	Jan. 20	1299	337	54	271
Garment-stays. Apparatus for making.....	F. Crompton.....	461,012	Oct. 13	727	187	57	148
Garment-stretcher.....	D. Brooks, Jr.....	455,605	July 7	502	130	56	97
Garment-supporter.....	G. E. Adams.....	461,601	Oct. 20	1721	421	57	344
Garment-supporter.....	W. L. Braddock.....	466,080	Dec. 29	3351	856	57	1814
Garment-supporter.....	G. Bradshaw.....	455,302	July 7	11	3	56	5
Garment-supporter.....	S. B. Ferris.....	449,113	Mar. 31	2984	753	54	1722
Garment-supporter.....	H. Finkelstein.....	461,782	Oct. 20	2020	499	57	400
Garment-supporter.....	R. Gemmell.....	455,710	July 7	670	177	56	129
Garment-supporter.....	A. A. and G. L. Gillett.....	448,223	Mar. 17	1555	397	54	1432
Garment-supporter.....	G. C. Kilbe, Jr.....	449,817	Apr. 7	266	68	55	53
Garment-supporter.....	W. H. Plumb.....	455,411	July 7	188	48	56	39
Garment-supporter.....	S. C. Scantlebury.....	446,079	Feb. 10	928	227	54	700
Garment-supporter.....	R. P. Sholl.....	456,969	Aug. 4	71	17	56	547
Garment-supporter.....	L. A. Topp.....	461,650	Oct. 20	1804	444	57	350
Garments in position to be put on. Device for holding.....	O. Gruendler.....	462,380	Nov. 3	261	64	57	600
Garments. Manufacture of sewed.....	C. P. Borton.....	456,467	July 21	1858	491	56	371
Garments. Manufacture of sewed.....	S. Borton.....	456,468	July 21	1860	491	56	371
Garments. Suspension-frame for.....	B. F. Lamb.....	454,579	June 23	2113	545	55	1574
Garnett machines. Stop-motion for the feed-rolls of.....	J. Ingram.....	451,234	Apr. 28	2488	{ 613 } 614	55	506
Garter.....	C. Freese.....	463,985	Nov. 24	2817	730	57	1118
Garter-fastening.....	J. C. Knowles.....	462,358	Nov. 3	227	56	57	594
Gas and air mixer.....	E. Meredith.....	447,784	Mar. 10	830	{ 206 } 207	54	1282
Gas and air mixing apparatus.....	G. R. Cottrell.....	447,299	Mar. 3	23	7	54	1123
Gas and electric lights. Combination-fittings for.....	O. Strom.....	460,095	Sept. 22	2443	610	56	1558
Gas and hydrocarbon motive engine.....	E. and H. Crowe.....	450,612	Apr. 21	1464	{ 359 } 360	55	295
Gas and oil tank.....	J. N. Barker.....	454,106	June 16	1388	363	55	1428
Gas. Apparatus for and method of making fuel.....	E. P. Reichhelm and G. Machlet, Jr.....	464,779	Dec. 8	1196	297	57	1371
Gas. Apparatus for burning natural.....	C. D. Betts.....	457,245	Aug. 4	495	131	56	626
Gas. Apparatus for impregnating liquids with.....	U. Bachmann.....	452,512	May 19	1735	437	55	917
Gas. Apparatus for manufacturing.....	T. T. Prosser and C. H. Wilder.....	461,982	Oct. 27	2342	581	57	471
Gas. Apparatus for manufacturing.....	J. S. Rogers and J. H. Baker.....	465,065	Dec. 15	1707	434	57	1479
Gas. Apparatus for manufacturing.....	J. L. Stewart.....	447,916	Mar. 10	1062	266	54	1326
Gas. Apparatus for manufacturing fuel.....	W. A. Koneman.....	464,700	Dec. 8	1075	266	57	1349
Gas. Apparatus for manufacturing heating and illuminating.....	J. S. Rogers and J. H. Baker.....	465,077	Dec. 15	1688	{ 430 } 431	57	1475
Gas. Apparatus for producing.....	A. A. Fritz.....	464,963	Dec. 15	1475	371	57	1437
Gas. Apparatus for the manufacture of.....	P. E. De Mill, Jr.....	447,506	Mar. 3	397	97	54	1192

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Gas. Apparatus for the manufacture of	A. Seguin	465,146	Dec. 15	1819	461	57	1499
Gas. Apparatus for the manufacture of	L. Stevens	414,091	Jan. 6	174	41	54	37
Gas. Apparatus for the manufacture of	J. L. Stewart	454,409	June 16	1848	453	55	1516
Gas. Apparatus for the manufacture of	C. Stülwell	454,531	June 23	2040	528	55	1560
Gas. Apparatus for the manufacture of	J. H. W. Stringfellow	457,484	Aug. 11	935	237 238	56	713
Gas. Apparatus for the manufacture of	C. Tellier	449,809	Apr. 7	253	64	55	51
Gas. Apparatus for the manufacture of	G. M. S. Wilson	463,799	Nov. 24	2510	655 656	57	1060
Gas. Apparatus for the manufacture of coal	J. Elliott	456,140	July 21	1325	349 350 351	56	271
Gas. Apparatus for the manufacture of hydrogen	J. W. Tallmadge	452,246	May 12	1294	324 325	55	828
Gas. Apparatus for the manufacture of water	T. S. C. Lowe	445,450	Jan. 27	2331	606	54	481
Gas. Apparatus for the reduction of petroleum into	F. Dürr	445,982	Feb. 10	760	186	54	671
Gas-burner	L. Burt	466,091	Dec. 29	3354	856	57	1814
Gas-burner	J. M. Farmer	451,640	June 23	2226	573	55	1593
Gas-burner	C. S. Ford, Sr.	463,969	Nov. 24	2791	723	57	1114
Gas-burner	L. H. Friedburg	457,153	Aug. 4	337	86	56	598
Gas-burner	C. L. Holden	461,435	Oct. 20	1403	354	57	286
Gas-burner	L. Kahn	454,910	June 30	2668	683	55	1684
Gas-burner	J. Kennedy	455,214	June 30	3221	817 818	55	1791
Gas-burner	S. N. Prather and L. H. Bohn	451,517	May 5	107	27	55	600
Gas-burner	F. Rhind	460,054	Sept. 22	2379	595	56	1546
Gas-burner	J. Riddell and R. G. Morrison	457,750	Aug. 11	1348	349	56	797
Gas-burner attachment	P. Stephansky	449,712	Apr. 7	105	28	55	23
Gas-burner. Bunsen	T. Boyce	462,685	Nov. 10	743	193	57	702
Gas-burner. Domestic	J. W. Culmer	462,893	Nov. 10	1078	279	57	768
Gas-burner for cooking stoves or ranges	T. F. Downey	456,139	July 21	1323	348	56	270
Gas-burner. Fuel	J. F. Mains	461,886	Oct. 27	2187	539	57	442
Gas-burner. Incandescent	J. C. O. Chemin	445,725	Feb. 3	344	90	54	580
Gas-burner. Natural	H. H. Hibberd	459,783	Sept. 22	1965	495	56	1467
Gas-burner. Natural	F. M. Reed	444,850	Jan. 20	1367	354	54	284
Gas-burner. Oil	W. H. Phillips	460,657	Oct. 6	196	50	57	41
Gas-burner safety attachment	J. S. Valentine	451,785	May 5	521	129	55	677
Gas-burner. Self-closing	C. H. Keeney	452,140	May 12	1124	285	55	793
Gas-burner. Self-closing	W. Ten Eyck	445,612	Feb. 3	147	38	54	540
Gas-burner. Self-closing	W. Ten Eyck	449,338	Mar. 31	3363	848	54	1749
Gas-burner. Water-heating	W. H. Munn	450,634	Apr. 21	1541	370	55	317
Gas-burners. Device for cleaning	J. Reilley	447,905	Mar. 10	1041	261	54	1322
Gas-burners. Heating attachment for	C. E. Duryea	465,623	Dec. 22	2597	659	57	1657
Gas-burners. Heating attachment for	G. A. Williams	457,543	Aug. 11	1018	261	56	731
Gas-cocks. Machine for turning keys for	F. B. Manville	451,184	Apr. 28	2403	594	55	489
Gas-compressor	F. G. Knox	461,080	Oct. 13	826	212	57	166
Gas. Device for separating liquids from natural	C. L. Stock	447,848	Mar. 10	947	237	54	1304
Gas-distributing systems. Reservoir for	A. Wilbur	455,081	June 30	3000	763	55	1748
Gas-engine	I. F. Allman	453,071	May 26	2633	665	55	1099
Gas-engine	J. Charter	455,388	July 7	146	37	56	32
Gas-engine	B. H. Coffey	446,851	Feb. 24	2187	544 545	54	968
Gas-engine	P. T. Coffield and C. H. Paxson	456,284	July 21	1550	410 411	56	313
Gas-engine	E. W. Evans	452,568	May 19	1820	457	55	933
Gas-engine	J. Fielding	450,406	Apr. 14	1162	293	55	228
Gas-engine	M. A. Grahau	445,110	Jan. 20	1818	471	54	370
Gas-engine	O. Kosztovits	448,924	Mar. 24	2688	677 678	54	1656
Gas-engine	G. W. Lewis	451,621	May 5	271	65	55	630
Gas-engine	E. Narjot	448,989	Mar. 24	2783	704	54	1671
Gas-engine	B. C. Vanduzen	448,597	Mar. 17	2161	540 541	54	1548
Gas-engine	G. J. Weber	449,507	Mar. 31	3643	917	54	1843
Gas-engine and ignitor therefor	G. J. Weber	444,031	Jan. 6	78	20, 21	54	19
Gas-engine attachment	M. M. Barrett	452,174	May 12	1190	300	55	806
Gas-engine operating mechanism	M. M. Barrett and J. F. Daly	463,435	Nov. 17	1939	506	57	943
Gas-engine. Rotary	D. D. and J. T. Hobbs	460,070	Sept. 22	2401	601 602	56	1550
Gas-engine starter	F. W. Lanchester	459,403	Sept. 15	1357	340	56	1347
Gas-engine starter	F. W. Lanchester	459,404	Sept. 15	1360	340 341	56	1317
Gas-engine starter	F. W. Lanchester	459,405	Sept. 15	1363	341	56	1347
Gas-engines. Vaporizer for	L. G. Wolley	450,091	Apr. 7	651	164	55	127
Gas fire for heating and other purposes	O. F. Grant	457,081	Aug. 4	238	61	56	578
Gas-fired boiler	E. C. Jones	445,999	Feb. 10	805	195	54	677
Gas-furnace	J. F. Gilpin and J. Elliot	448,955	Mar. 24	2736	690	54	1665
Gas-generating apparatus	A. Richter	464,040	Dec. 1	49	14	57	1146
Gas-generating machine. Automatic	W. F. Singer	459,712	Sept. 15	1853	466	56	1440
Gas-generator	C. F. Cattell	459,925	Sept. 22	2194	551 552	56	1511
Gas-generator	A. Kitson	462,561	Nov. 3	542	139	57	654
Gas-generator. Carbonic-acid	J. F. Wittmann	465,796	Dec. 22	2844	728 729	57	1707
Gas-governor	F. Ellis	452,946	May 26	2435	614	55	1062
Gas-heater	J. Gibbons	462,920	Nov. 10	1115	290	57	775
Gas-holder	G. T. Thompson	460,898	Oct. 6	563	142	57	110
Gas in gas service-pipes. Means for equalizing the pressure of	W. A. Walker	455,913	July 14	990	258	56	198
Gas in man-holes. Means for preventing the accumulation of	C. W. Hays	457,436	Aug. 11	847	219	56	698
Gas-lighter	H. C. Goodrich	453,145	May 26	2756	694	55	1122
Gas-lighter. Automatic electric	A. Wunderlich	456,685	July 28	2211	586	56	448
Gas-lighter. Electric	H. H. Cutler	445,728	Feb. 3	349	91	54	581

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &	Vol.	Page.
Gas-lighter. Electric.....	T. W. Lane.....	444,706	Jan. 13	1127	291	54	231
Gas-lighter. Electric.....	H. A. Pinkham.....	458,486	Aug. 25	2550	621	56	1036
Gas-lighter. Electric.....	A. Wunderlich.....	456,684	July 28	2209	586	56	448
Gas-lighting apparatus. Automatic.....	G. D. Clarke.....	458,154	Aug. 25	1994	516 517	56	934
Gas-lighting apparatus. Electric.....	H. H. Cutler.....	445,727	Feb. 3	346	91	54	581
Gas. Machine for generating illuminating.....	D. S. Green.....	456,116	July 14	1282	337	56	253
Gas machines or plants. Pump for.....	A. T. Welch.....	452,116	May 12	1084	275 276	55	786
Gas-making apparatus.....	A. M. Sutherland.....	466,283	Dec. 29	3653	334	57	1871
Gas. Manufacture of.....	T. T. Prosser and C. H. Wilder.....	462,161	Oct. 27	2609	650	57	522
Gas. Manufacturing.....	J. H. Collins, Jr., and I. N. Knapp.....	463,139	Nov. 17	1463	379 380	57	853
Gas. Manufacturing.....	W. G. Wood.....	454,925	June 30	2713	692 298	55	1692
Gas-meter.....	C. N. Dutton.....	459,328	Sept. 8	1218	299 300	56	1311
Gas-meter.....	A. Ehebald.....	448,643	Mar. 24	2251	565	54	1572
Gas-meter.....	J. B. Knickerbocker.....	447,883	Mar. 10	1000	252 253	54	1314
Gas-meter.....	R. Mitchell and C. Lawson.....	447,693	Mar. 3	669	167	54	1245
Gas-meter.....	J. Seidham and J. B. Wallace.....	445,757	Feb. 3	398	101	54	591
Gas-meters. Device for recording the readings of.....	D. E. Felt.....	450,664	Apr. 21	1587	381	55	326
Gas-meters. Device for recording the readings of.....	D. E. Felt and G. W. Martin.....	450,663	Apr. 21	1584	380	55	326
Gas-meters. Value and quantity register for.....	J. L. Cloudsley.....	451,756	May 5	484	120	55	670
Gas-mixing machine.....	J. Taylor.....	446,086	Feb. 10	943	231	54	703
Gas-motor.....	J. S. Connelly.....	457,459	Aug. 11	884	228 229	56	705
Gas-motor.....	J. S. Connelly.....	457,460	Aug. 11	889	229 230	56	705
Gas-motor.....	V. Loutsky.....	460,241	Sept. 29	2663	663 664	56	1608
Gas-motor.....	P. Niel and A. Janiot.....	462,447	Nov. 3	361	89, 90	57	619
Gas-motor engine.....	F. W. Lanchester.....	465,480	Dec. 22	2351	602 603	57	1612
Gas-motor engine.....	H. Williams.....	457,020	Aug. 4	134	33	56	559
Gas or gasoline engine.....	B. C. Vanduzen.....	448,386	Mar. 17	1836	462 463	54	1486
Gas or gasoline-vapor engine.....	P. C. Sainsevain.....	461,802	Oct. 20	2055	507	57	406
Gas or hydrocarbon-vapor burner.....	G. Roberts.....	446,016	Feb. 10	823	199	54	681
Gas or oil burner.....	F. S. Durand.....	455,483	July 7	289	73	56	58
Gas or oil motor engine.....	H. Schumm.....	458,073	Aug. 18	1871	488	56	903
Gas or other motors. Apparatus for controlling the circulation of liquid through cylinder-jackets of.....	H. Lindley.....	450,771	Apr. 21	1736	420 421	55	354
Gas or petroleum motors. Igniting device for.....	E. Kaselowsky.....	463,231	Nov. 17	1603	418	57	878
Gas or vapor engine.....	G. W. Lewis.....	451,620	May 5	268	64	55	630
Gas or vapor engine.....	A. Rollason and J. H. Hamilton.....	456,505	July 21	1913	506	56	381
Gas or vapor engine.....	A. Rollason and J. H. Hamilton.....	456,853	July 28	2508	658	56	500
Gas or vapor engine.....	A. Rollason and J. H. Hamilton.....	457,332	Aug. 4	655	171	56	654
Gas or water fittings. Tool for operating on.....	S. J. Rofe.....	449,663	Apr. 7	331	85	55	66
Gas-pipe screen.....	H. S. Hallwood.....	446,218	Feb. 10	1169	286	54	743
Gas. Prepayment attachment for vending.....	R. W. Brownhill.....	456,011	July 14	1138	298 299	56	225
Gas-pressure equalizer.....	K. J. Smith.....	456,238	July 21	1486	395	56	301
Gas. Process of and apparatus for generating.....	W. H. Harris.....	463,965	Nov. 24	2778	720 721	57	1111
Gas. Process of and apparatus for manufacturing.....	J. M. Rose.....	461,394	Oct. 13	1332	336 337	57	265
Gas. Process of and apparatus for the manufacture of.....	J. F. Allen.....	453,752	June 9	902	235	55	1326
Gas. Process of and apparatus for the manufacture of.....	W. P. Elliott.....	452,697	May 19	2023	506 507	55	974
Gas-producer.....	E. Brook.....	452,256	May 12	1312	328	55	831
Gas-producer.....	C. M. Ryder.....	458,378	Aug. 25	2380	581	56	1005
Gas-producers. Poke-pole for.....	G. W. Goetz.....	444,631	Jan. 13	1012	263	54	209
Gas-purifiers. Center-seal and by-pass valve for.....	W. Morava.....	464,714	Dec. 8	1098	272 273	57	1354
Gas-purifiers. Tray for.....	J. Cabot.....	457,577	Aug. 11	1072	274	56	742
Gas-purifying agents. Revivifying.....	C. W. Jones.....	462,137	Oct. 27	2579	643	57	516
Gas. Recovering cyanides from coal.....	W. L. Rowland.....	465,600	Dec. 22	2560	.....	57	1650
Gas-regulator.....	T. Gordon.....	461,829	Oct. 27	2102	518	57	424
Gas regulator or governor.....	L. Boore.....	454,706	June 23	2323	597	55	1613
Gas-retort.....	F. Bredel.....	454,514	June 23	2009	521	55	1555
Gas-retort.....	A. M. Sutherland.....	449,142	Mar. 31	3027	765	54	1729
Gas-retort charger.....	A. Hickenlooper.....	456,569	July 28	2019	533 534	56	410
Gas-retort-discharging apparatus.....	G. A. Brander.....	447,022	Feb. 24	2480	617	54	1020
Gas-retort furnace.....	W. H. Snow.....	462,021	Oct. 27	2399	595	57	482
Gas-scrubber.....	C. W. Blodget.....	460,300	Sept. 29	2763	688	56	1627
Gas-scrubber. Rotary.....	W. Mooney.....	444,300	Jan. 6	501	130 131	54	100
Gas station-meter.....	W. McDonald.....	460,154	Sept. 29	2540	633	56	1584
Gas-supply shut-off and regulator. Automatic.....	W. C. Rossney.....	449,178	Mar. 31	3083	777	54	1740
Gas-tar or other liquid fuel. Apparatus for burning.....	W. Bliss, E. Bradbury, and A. H. Gibson.....	450,052	Apr. 7	594	147 148 149	55	115
Gases. Apparatus for testing mine.....	T. Shaw.....	460,683	Oct. 6	240	59, 60	57	49
Gases. Metallic vessel for compressed.....	W. A. Johnston and A. W. Browne.....	457,158	Aug. 4	345	88	56	599
Gases. Vessel for holding highly-compressed.....	U. K. Mayo.....	453,265	June 2	134	36	55	1173
Gases with vapors of volatile substances. Apparatus for impregnating.....	E. Blass.....	458,937	Sept. 1	608	150	56	1183
Gaseous fuel. Burner for burning.....	J. Gammon.....	460,334	Sept. 29	2818	702	56	1638
Gasoline-burner. Automatic.....	N. Newman.....	445,572	Feb. 3	81	19	54	527
Gasometer.....	P. A. Saybaton.....	452,616	May 19	1894	476	55	948

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette	
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Gate:							
See Automatic gate.	Railway-crossing gate.						
Bridge-gate.	Railway-track gate.						
Car-gate.	Registering-gate.						
Car-platform gate.	Safety-gate.						
Electric gate.	Sliding gate.						
End-gate.	Sliding and swinging gate.						
Farm-gate.	Swinging gate.						
Flood-gate.	Vertically-adjustable gate.						
Folding gate.	Wire gate.						
Molasses-gate.							
Railway-gate.							
Gate.....	C. A. Anderson.....	447,441	Mar. 3	279	70	54	1170
Gate.....	J. T. Anglin.....	461,807	Oct. 27	2064	509	57	417
Gate.....	G. H. Aylworth.....	444,325	Jan. 6	538	140	54	108
Gate.....	H. Barker.....	453,534	June 2	559	143	55	1253
Gate.....	J. R. Benson.....	453,958	June 9	1178	308	55	1381
Gate.....	W. Brayton.....	454,026	June 16	1277	332	55	1408
Gate.....	C. D. Brown.....	457,701	Aug. 11	1256	325	56	776
Gate.....	J. E. Buck.....	447,659	Mar. 3	619	154	54	1235
Gate.....	G. W. Bussey.....	461,317	Oct. 13	1195	304	57	239
Gate.....	M. G. Caldwell.....	464,170	Dec. 1	247	60	57	1182
Gate.....	J. D. Calpha.....	454,847	June 30	2553	657	55	1662
Gate.....	F. C. Cash.....	446,325	Feb. 10	1360	331	54	781
Gate.....	A. H. Cleaveland.....	461,093	Oct. 13	842	218	57	169
Gate.....	W. Cooper.....	445,343	Jan. 27	2179	564	54	451
Gate.....	G. E. Cornell.....	465,240	Dec. 15	1954	500	57	1527
Gate.....	G. H. Damon.....	456,020	July 14	1158	303	56	228
Gate.....	C. H. Fidler.....	447,042	Feb. 24	2519	695	54	1027
Gate.....	J. W. Fisher.....	445,052	Jan. 20	1731	446	54	354
Gate.....	W. E. Garthwaite.....	464,280	Dec. 1	439	105	57	1218
Gate.....	G. H. Gilmour.....	454,906	June 30	2658	681	55	1682
Gate.....	J. F. Glidden.....	457,491	Aug. 11	949	240	56	716
Gate.....	A. W. Graham.....	450,569	Apr. 14	1383	341	55	273
Gate.....	I. H. Henley.....	460,134	Sept. 29	2516	626	56	1579
Gate.....	G. Hoskins.....	460,969	Oct. 13	668	172	57	137
Gate.....	J. P. Irwin.....	456,956	Aug. 4	56	13	56	543
Gate.....	D. H. Iseminger.....	457,722	Aug. 11	1290	336	56	783
Gate.....	D. H. Iseminger.....	463,665	Nov. 24	2313	607	57	1023
Gate.....	M. D. Johnson.....	465,323	Dec. 15	2093	534	57	1552
Gate.....	W. R. Liddle.....	465,097	Dec. 15	1730	439	57	1483
Gate.....	A. H. Malone.....	464,575	Dec. 8	871	214	57	1311
Gate.....	C. S. Martindale.....	464,636	Dec. 8	963	238	57	1329
Gate.....	D. D. Mayfield.....	444,158	Jan. 6	295	71	54	60
Gate.....	J. H. Miller.....	462,985	Nov. 10	1219	318	57	795
Gate.....	J. W. Miller.....	454,802	June 23	2467	634	55	1640
Gate.....	J. F. A. Millerick.....	447,013	Feb. 24	2458	612	54	1016
Gate.....	L. T. Page.....	465,725	Dec. 22	2739	698	57	1686
Gate.....	S. L. Retan.....	463,452	Nov. 17	1956	511	57	947
Gate.....	W. A. Roberts and J. L. McGee.....	453,506	June 2	518	133	55	1245
Gate.....	T. Scheibel.....	461,986	Oct. 27	2348	582	57	472
Gate.....	G. W. Smith.....	449,091	Mar. 24	2942	745	54	1705
Gate.....	J. B. Smith.....	455,416	July 7	192	50	56	40
Gate.....	J. I. Smith.....	450,876	Apr. 21	1917	470	55	387
Gate.....	W. H. Smith.....	447,374	Mar. 3	159	44	54	1148
Gate.....	W. H. Swogger.....	447,122	Feb. 24	2640	655	54	1052
Gate.....	R. S. Taylor.....	446,302	Feb. 10	1329	323	54	775
Gate.....	C. W. Thompson.....	456,260	July 21	1518	403	56	307
Gate.....	J. E. Van Horn.....	463,798	Nov. 24	2509	655	57	1060
Gate.....	W. R. White.....	446,605	Feb. 17	1790	443	54	880
Gate.....	W. R. White.....	456,974	Aug. 4	81	20	56	549
Gate.....	W. R. White.....	463,324	Nov. 17	1757	460	57	908
Gate.....	F. Williams.....	449,456	Mar. 31	3570	899	54	1829
Gate.....	P. Wood.....	448,402	Mar. 17	1863	469	54	1491
Gate.....	M. Yakley.....	460,622	Oct. 6	123	32	57	26
Gate and gate-hinge.....	J. B. Erwin.....	453,552	June 2	586	149	55	1258
Gate-brace.....	S. P. Hodgen.....	443,996	Jan. 6	18	4	54	7
Gate opening and closing device.....	S. F. Rolston.....	460,598	Oct. 6	81	22	57	18
Gate opening and closing device. Farm.....	T. L. Mason.....	454,015	June 9	1262	328	55	1397
Gate-opening device.....	W. R. Chisham.....	462,690	Nov. 10	752	196	57	704
Gate or door fastening.....	C. Fleming, Jr.....	462,909	Nov. 10	1101	286	57	773
Gate-worker.....	S. Portis.....	463,546	Nov. 17	2110	556	57	976
Gear-cutter or milling-machine.....	U. H. E., and U. Eberhardt, Jr.....	461,952	Oct. 27	2301	570	57	463
Gear-cutting machine.....	J. Sherman.....	464,233	Dec. 1	357	86	57	1201
Gear. Driving-chain.....	H. Guthrie.....	464,154	Dec. 1	220	52	57	1178
Gear. Removable toothed.....	R. D. Nuttall.....	449,493	Mar. 31	3625	912	54	1840
Gear. Reversible friction.....	G. K. Moehle.....	463,532	Nov. 17	2074	545	57	969
Gear-wheel.....	R. C. Smith.....	458,984	Sept. 1	681	166	56	1198
Gearing.....	J. Daily.....	447,447	Mar. 3	288	73	54	1172
Gearing and the application thereof to water-meters. Differential.....	J. Thomson.....	452,490	May 19	1702	428	55	911
Gearing. Chain.....	E. G. Latta.....	456,729	July 28	2288	606	56	462
Gearing. Driving-ring for frictional.....	F. H. Underwood.....	451,985	May 12	838	214	55	745
Gearing. Forming the teeth of face.....	F. Lambert.....	452,430	May 19	1692	426	55	909
Gearing. Frictional.....	G. F. Evans.....	453,630	June 9	717	185	55	1292
Gearing. Frictional.....	G. W. Soule.....	450,302	Apr. 14	981	244	55	195
Gearing. Frictional.....	F. H. Underwood.....	451,986	May 12	840	215	55	745
Gearing. Frictional.....	F. H. Underwood.....	451,987	May 12	842	215	55	746

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Gearing. Frictional	C. C. Yates	457,100	Aug. 4	261	67	56	583
Gearing. Frictional reversing	F. H. Richards	446,927	Feb. 24	2328	578	54	992
Gearing mechanism. Back	B. G. Luther	446,233	Feb. 10	1190	{ 291 292 }	54	747
Gearing. Sprocket and chain	J. F. and R. F. A. Helms	462,255	Nov. 3	53	13	17	562
Gearing. Toothed	M. P. Campbell	456,796	July 28	2401	632	56	482
Gem-setting	C. D. Reynolds	460,161	Sept. 29	2548	635	56	1585
Gem-settings. Preparing	A. Hogg	450,618	Apr. 21	1478	362	55	298
Generator:							
See Electric generator. Heat-generator.							
Electric-current generator. Motor-generator.							
generator. Steam-generator.							
Electrical generator. Steam and hot-water gen-							
erator. Gas-generator.							
Geodetic altazimuth	T. W. Goad	459,455	Sept. 15	1437	361	56	1361
Geographical globe	A. L. Silvernail	452,291	May 12	1361	339	55	839
Geometrical figures. Device for laying off	W. B. Griffiths	462,126	Oct. 27	2564	637	57	513
Geometrical figures on spherical or curvilinear bodies.	F. H. Van Houten	460,168	Sept. 29	2559	{ 638 639 }	56	1588
Machine for forming					{ 548 549 }	57	1560
Gig-mill	W. H. Clough and H. O. Manning ..	465,345	Dec. 15	2141	549		
Gigging and shearing machine. Combined	H. S. Greene	449,620	Mar. 31	3839	961	54	1879
Gigging machine	L. Clarenbach, Jr	458,145	Aug. 18	1984	514	56	925
Gilding cards, &c. Machine for	R. M. Hunter	463,370	Nov. 17	1836	{ 480 481 }	57	923
Girth-fastener	W. T. McFarlane	449,492	Mar. 31	3624	912	54	1840
Glass. Apparatus for cutting	S. G. Monce	453,867	June 9	1058	277	55	1357
Glass. Apparatus for grinding, smoothing, and pol-	M. Malevez	449,686	Apr. 7	57	14	55	13
ishing							
Glass. Apparatus for rolling plate or sheet	J. W. Bonta	462,528	Nov. 3	481	{ 117 118 }	57	643
Glass articles. Decorating	W. Buttler	460,358	Sept. 29	2859		56	1645
Glass-beveling machine	P. Wiederer	446,196	Feb. 10	1131	277	54	735
Glass-beveling machine	P. Wiederer	458,799	Sept. 1	375	90	56	1137
Glass-blowing machine	H. Bard	453,977	June 9	1205	315	55	1386
Glass-blowing machine	C. L. Startup	453,795	June 9	973	253	55	1340
Glass-blowing tube	A. Pitman	444,160	Jan. 6	298	71	54	61
Glass bottles, &c. Manufacture of	R. S. Pease	463,646	Nov. 24	2289	601	57	1019
Glass, &c. Composition of matter for use as a sub-	F. Eckstein	458,157	Aug. 25	2001	518	56	935
stitute for							
Glass. Compound for frosting	W. H. Akester	445,528	Feb. 3	1		54	511
Glass cylinders, pipes, &c. Manufacture of	R. S. Pease	463,645	Nov. 24	2286	601	57	1018
Glass. Decorating	G. W. Martin	444,797	Jan. 13	1275	330	54	257
Glass-finishing furnace	H. C. Wood	452,205	May 12	1231	311	55	814
Glass for light-transmitting and ventilating	J. W. Mark	458,854	Sept. 1	474	114	56	1156
Glass-furnace	J. A. Weyer	452,462	May 19	1667	{ 417 418 }	55	905
Glass-furnace float	L. Houze	455,486	July 7	295	74	56	60
Glass. Machine for printing on	C. Z. F. Rott	451,978	May 12	825	211	55	742
Glass. Making flashed	F. Lannoy	451,618	May 5	265	63	55	629
Glass manufacture. Bevel-grinding machine for	E. Homan	451,303	Apr. 28	2594	640	55	527
plate							
Glass. Manufacturing	R. S. Pease	444,560	Jan. 13	916	239	54	190
Glass-melting furnace	H. Burgess	451,287	Apr. 28	2574	{ 635 636 }	55	524
Glass-melting furnace	H. Schulze-Berge	447,795	Mar. 10	864	215	54	1288
Glass. Method of and apparatus for the manufac-	R. S. Pease	463,642	Nov. 24	2276	599	57	1017
ture of plate							
Glass-mold	T. B. Atterbury	453,875	June 9	1070	279	55	1359
Glass pipes. Apparatus for the manufacture of	A. Tuerffs	459,490	Sept. 15	1490	374	56	1371
Glass plates, cylinders, &c. Manufacture of	R. S. Pease	463,644	Nov. 24	2282	{ 600 601 }	57	1018
Glass plates. Manufacture of	R. S. Pease	463,643	Nov. 24	2279	600	57	1017
Glass-polishing machine	A. de Boischevalier	460,941	Oct. 13	628	162	57	129
Glass-polishing machine	F. F. Fischer	449,816	Apr. 7	263	67, 68	55	52
Glass-polishing machine	F. Schefold	453,566	June 2	604	154	55	1262
Glass-pot furnace	A. G. Neville	451,836	May 5	593	{ 146 147 }	55	692
Glass. Rolling plate or sheet	J. W. Bonta	462,529	Nov. 3	484	{ 118 119 }	57	643
Glass-sealing apparatus. Plate	J. M. Howard	449,043	Mar. 24	2866	{ 728 729 }	54	1691
Glass soaping and polishing machine	C. Delrue	460,632	Oct. 6	160	40	57	34
Glass spheres. Manufacture of solid	J. H. Leighton	462,083	Oct. 27	2481	616	57	498
Glass-tube cutter	P. Smith	454,233	June 16	1575	415	55	1465
Glass-tube cutter	W. T. Levi	457,732	Aug. 11	1315	341	56	789
Glasses. Machine for grinding oval	R. Friedel	465,695	Dec. 22	2702	689	57	1678
Glasses. Supplemental base for	J. F. Brusio	455,094	June 30	3020	767	55	1752
Glassware	L. Schaub	452,722	May 19	2066	520	55	982
Glassware	X. Zraggen	446,590	Feb. 17	1774	435	54	877
Glassware. Apparatus for grinding or polishing	H. Schulze-Berge	447,700	Mar. 3	676	169	54	1246
Glassware. Machine for blowing	D. C. Ripley	458,190	Aug. 25	2048	531	56	944
Glassware. Machine for forming	D. C. Ripley	458,191	Aug. 25	2051	532	56	944
Glassware. Manufacture of	D. C. Ripley	458,189	Aug. 25	2047	531	56	943
Glassware. Manufacture of	C. Ullig	466,062	Dec. 29	3314	846	57	1806
Glassware. Manufacturing articles of	W. K. Elson	452,452	May 19	1637	409	55	900
Glassware. Method of and apparatus for engraving	A. Tschinkel	460,670	Oct. 6	217	55	57	45
hollow							
Glassware. Pneumatic machine for forming	D. C. Ripley	461,489	Oct. 20	1544	379	57	311
Glassware-polishing machine	H. C. Wood	445,708	Feb. 3	318	84	54	575
Glazier's diamond	O. Sandtman	464,997	Dec. 15	1558	396	57	1452
Glazier's window-lead. Machine for cutting	W. C. Minns	446,878	Feb. 24	2237	556	54	977
Globe	T. R. Johnston	465,274	Dec. 15	2018	516	67	1537
Globe-holder	J. Lynam	444,796	Jan. 13	1273	330	54	256
	H. R. Burk	448,119	Mar. 10	1369	350	54	1387

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Globe. Show.....	O. Berger and H. Eldridge.....	465,516	Dec. 22	2418	617	57	1624
Globe. Time.....	E. R. E. Cowell.....	445,393	Jan. 27	2245	583	54	464
Globe.....	J. W. Begg.....	463,290	Nov. 17	1696	443	57	897
Glove.....	S. R. Conway and J. S. White.....	460,463	Sept. 29	3001	752	56	1672
Glove.....	W. J. Fanshawe.....	461,744	Oct. 20	1949	484	57	387
Glove.....	H. L. Heath.....	458,326	Aug. 25	2291	560	56	989
Glove.....	T. Hooper and S. G. Moore.....	456,035	July 14	1174	308	56	232
Glove.....	I. W. Lamb.....	462,563	Nov. 3	546	{ 132 133 }	57	655
Glove.....	P. B. Lee.....	450,715	Apr. 21	1658	{ 399 400 }	55	339
Glove.....	R. Reach.....	450,717	Apr. 21	1660	400	55	339
Glove. Ball-catcher's.....	J. F. Draper.....	459,441	Sept. 15	1414	354	56	1357
Glove. Base-ball.....	A. Haegg.....	461,218	Oct. 13	1053	266	57	209
Glove. Catcher's.....	E. H. Decker.....	447,233	Feb. 24	2862	710	54	1093
Glove. Catcher's.....	E. H. Decker.....	450,366	Apr. 14	1102	270	55	217
Glove. Catcher's.....	H. W. Price.....	461,847	Oct. 27	2125	{ 523 524 }	57	429
Glove-fastening.....	E. Pringle.....	445,820	Feb. 3	516	124	54	612
Glove-fastening.....	M. D. Shipman.....	447,369	Mar. 3	152	41	54	1146
Glove-fastening device.....	L. A. Donillet.....	460,911	Oct. 6	586	148	57	114
Glove or mitten. Base-ball catcher's.....	J. F. Draper.....	461,819	Oct. 27	2088	515	57	421
Glove-receptacle.....	C. C. Weeks.....	457,390	Aug. 11	784	201	56	686
Glove. Swimming.....	J. G. Eisele.....	458,888	Sept. 1	537	131	56	1168
Gloves and for other uses. Traverse-warp fabric for making.....	T. W. Fletcher.....	461,015	Oct. 13	735	{ 189 190 }	57	150
Gloves. Hand-board for laying off and finishing.....	F. P. Merrill.....	460,023	Sept. 22	2326	583	56	1536
Glucose or sugar. Manufacture of.....	J. Dubiel.....	456,481	July 21	1876	495	56	374
Glue-applying machine.....	M. D. Knowlton and C. F. Pease.....	447,012	Feb. 24	2453	{ 611 612 }	54	1016
Glue. Machine for cutting and spreading.....	C. Keller and J. Conly.....	452,075	May 12	1012	255	55	774
Gluten from slaughter-house washings. Apparatus for separating.....	R. Giebertmann.....	445,054	Jan. 20	1735	447	54	355
Gluten from slaughter-house washings. Separating.....	R. Giebertmann.....	445,055	Jan. 20	1736	447	54	355
Glycerine and salt from spent soap-lyes. Recovering.....	A. Domeier and O. C. Hagemann.....	453,829	June 9	1013	.....	55	1348
Glycerine from soap-makers' waste. Obtaining.....	J. Van Ruymbeke.....	458,447	Sept. 1	156	.....	56	1096
Glycerine from spent soap-lye. Recovering.....	O. C. Hagemann.....	453,835	June 9	1021	.....	55	1350
Glycerine. Plant for treating soap-makers' waste to obtain.....	J. Van Ruymbeke.....	458,648	Sept. 1	159	37	56	1096
Glycerine. Purifying and concentrating.....	O. C. Hagemann.....	453,834	June 9	1020	266	55	1350
Gold and silver bearing ores. Machine for amalgamating.....	J. T. Penny and W. H. Richardson.....	445,300	Jan. 27	2110	{ 546 547 }	54	436
Gold and silver from ore. Apparatus for separating.....	W. D. Bohm.....	464,672	Dec. 8	1022	256	57	1340
Gold and silver from ores. Apparatus for extracting.....	L. M. Howe and L. A. Gates.....	454,538	June 23	2050	530	55	1562
Gold and silver from their ores. Apparatus for washing and separating.....	W. J. Tanner.....	460,722	Oct. 6	307	75	57	60
Gold and silver from their ores by electrical amalgamation. Apparatus for extracting.....	G. Button and W. E. Wyeth.....	455,164	June 30	3136	796	55	1774
Gold and silver ores. Apparatus for treating.....	A. B. Paul.....	462,326	Nov. 3	171	43, 44	57	583
Gold-chlorinating process.....	J. H. Pollok.....	456,844	July 28	2486	653	56	497
Gold-collecting device. Float.....	R. Elliott.....	461,743	Oct. 20	1948	484	57	386
Gold from refractory or other ores. Amalgamating and extracting.....	W. Crookes.....	462,535	Nov. 3	496	.....	57	646
Gold or other precious metal. Settling and amalgamating pan for machinery for extracting.....	W. A. Merralls.....	449,552	Mar. 31	3709	{ 931 932 }	54	1855
Gold or silver from ores. Apparatus for extracting.....	J. Cragg.....	449,813	Apr. 7	257	65, 66	55	51
Gold or silver from ores. Extracting.....	J. Cragg.....	449,815	Apr. 7	261	67	55	52
Gold or silver. Lixivation process of and apparatus for the extraction of.....	S. W. Cragg.....	449,814	Apr. 7	259	66	55	52
Gold or silver ores. Grinding and amalgamating mill for.....	G. Fraser.....	466,162	Dec. 29	3465	885	57	1836
Gold saver and concentrator.....	W. A. Woods.....	455,498	July 7	311	79, 80	56	63
Gold-saving apparatus.....	O. H. Bagley.....	450,764	Apr. 21	1723	417	55	352
Gold-saving apparatus.....	J. H. Hobart.....	462,952	Nov. 10	1171	303	57	786
Gong.....	C. Callahan.....	448,008	Mar. 10	1217	309	54	1356
Gong.....	C. H. White.....	466,129	Dec. 29	3418	875	57	1826
Gong. Alarm.....	N. J. Busby.....	447,537	Mar. 3	446	110	54	1201
Gong. Alarm.....	N. J. Busby.....	447,538	Mar. 3	448	110	54	1202
Gong. Automatic.....	F. M. Farwell.....	456,482	July 21	1877	495	56	374
Gong. Electro-mechanical.....	F. W. Cole.....	452,931	May 26	2398	606	55	1053
Gong. Electro-mechanical.....	F. W. Cole.....	452,932	May 26	2401	607	55	1054
Gong or bell.....	J. W. Grantland.....	461,241	Oct. 13	1086	275	57	217
Gong-striking machine. Electro-mechanical.....	T. F. Gaynor.....	451,121	Apr. 28	2279	{ 564 565 }	55	467
Goods forms. Adjustable stand for.....	J. M. Huffer and A. B. Buehl.....	460,640	Oct. 6	172	44	57	36
Gopher-trap.....	L. A. Syverud.....	449,011	Mar. 24	2820	714	54	1681
Governor.....	E. Courtright.....	456,981	Aug. 4	89	22	56	550
Governor.....	J. H. Dales.....	458,045	Aug. 18	1833	{ 477 478 }	56	895
Governor.....	D. S. Henrie.....	445,178	Jan. 27	1937	500	54	402
Governor.....	J. H. Hamilton.....	455,533	July 7	376	96	56	74
Governor.....	J. H. Hamilton.....	456,095	July 14	1250	329	56	246
Governor.....	J. F. Kirby.....	454,218	June 16	1555	409	55	1461
Governor and valve-movement for gas-engines.....	E. I. Nichols.....	451,246	June 2	104	29	55	1168
Governor. Centrifugal.....	H. L. Berger and E. Noël.....	459,988	Sept. 22	2276	571	56	1526
Governor. Engine.....	H. L. Freeman.....	459,545	Sept. 15	1581	395	56	1387
Governor. Engine.....	H. J. Hartig.....	451,047	Apr. 28	2180	538	55	446
Governor. Engine.....	E. Thompson.....	446,957	Feb. 24	2368	589	54	1000
Governor. Fluid-pressure.....	G. Kimball and H. S. Teal.....	449,222	Mar. 31	3148	794	54	1752
Governor for steam-engines. Shaft.....	C. B. Mohn.....	450,249	Apr. 14	912	226	55	181
Governor. Gas-engine.....	F. W. Lancaster.....	445,021	Jan. 20	1678	431	54	344
Governor. Pressure.....	J. P. Stahler.....	445,348	Jan. 27	2184	566	54	452
Governor. Steam-engine.....	F. H. Ball.....	454,511	June 23	2006	529	55	1555
Governor. Steam-engine.....	E. S. Bowen.....	447,039	Feb. 24	2514	624	54	1027
Governor. Steam-engine.....	W. A. Graham.....	461,830	Oct. 27	2104	518	57	425

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Governor. Steam-engine	J. Harrold	450,151	Apr. 14	744	189	55	151
Governor. Steam-engine	E. Jones	459,853	Sept. 22	2076	521	56	1490
Governor. Steam-engine	C. K. Longenecker	457,322	Aug. 4	636	167 168	56	651
Governor. Steam-engine	R. E. Olds	456,837	July 28	2476	650	56	495
Governor. Steam-engine	A. H. Raynal	450,917	Apr. 21	1969	483	55	398
Governor. Steam-engine	O. Rosholt	466,106	Dec. 29	3373	861	57	1818
Governor. Steam-engine	A. J. Schindler	463,873	Nov. 24	2641	688	57	1084
Governor. Steam-pump	E. C. Johnson	465,477	Dec. 22	2345	601	57	1610
Grabs. Mechanism for working self-acting	H. Davies	460,362	Sept. 29	2563	714 715	56	1646
Grader and ditcher. Road	M. E. Lasher	460,919	Oct. 6	596	151	57	116
Grader. Road	J. A. Houser	454,048	June 16	1304	340	55	1413
Grader. Road	L. Kniffen	458,234	Aug. 25	2129	552	56	959
Graders. Wheel adjustment for road	J. D. Adams	462,679	Nov. 10	733	191	57	701
Grading machine. Road	C. M. Dodson	456,986	Aug. 4	94	23	56	551
Grain and cockle separator	T. F. Gray	460,436	Sept. 29	2960	740	56	1664
Grain. Apparatus for conditioning or drying	C. Mallinson	451,306	Apr. 28	2599	641	55	528
Grain-apron	J. E. Vanhorn	446,040	Feb. 10	269	211	54	689
Grain-bin alarm	J. H. Nichols	465,488	Dec. 22	2365	606	57	1614
Grain-bins. Fumigator for	T. A. Manahan	457,652	Aug. 11	1177	302	56	761
Grain-bins. Spout-alarm for	W. G. Adams	456,667	July 28	2185	579	56	443
Grain-binder	J. P. Bullock	452,337	May 12	1452	359 360	55	856
Grain-binder	P. Hanson	452,843	May 26	2253	565 566	55	1027
Grain-binder	J. Keller	461,794	Oct. 20	2037	502 503	57	403
Grain-binder	K. C. Kunkle	463,219	Nov. 17	1588	413 414	57	876
Grain-binder	G. A. Lowry	446,784	Feb. 17	2064	514	54	934
Grain-binder	T. R. McDonald	452,980	May 26	2485	628 629 630	55	1071
Grain-binder	J. R. Severance	452,459	May 19	1653	414 415	55	903
Grain-binder	J. R. Severance	452,460	May 19	1660	416 417	55	904
Grain-binder	J. R. Severance	458,553	Aug. 25	2647	644 645	56	1057
Grain-binder	J. P. Steward	453,764	June 9	923	239 240	55	1330
Grain-binder	B. F. Stewart	464,531	Dec. 8	812	199 200	57	1299
Grain-binder	A. E. Woodhouse	450,346	Apr. 14	1063	261	55	210
Grain-binder. Automatic	T. Lenox	445,586	Feb. 3	108	26, 27	54	532
Grain-binder cord-knotter	A. Stark	445,788	Feb. 3	449	112	54	600
Grain-binder cord-knotter	A. Stark	457,169	Aug. 4	359	92	56	602
Grain-binder feeding mechanism	J. R. Severance	452,458	May 19	1651	413 414	55	902
Grain-binder knotter	O. H. Watkins	460,609	Oct. 6	95	26	57	21
Grain-binder knotter	O. H. Watkins	460,610	Oct. 6	97	27	57	22
Grain-binder knotting mechanism	J. R. Severance	452,456	May 19	1644	411 412	55	901
Grain-binder knotting mechanism	J. R. Severance	452,457	May 19	1647	412 413	55	902
Grain-binder spreader	M. Patchin	461,271	Oct. 13	1123	287	57	234
Grain-binders. Band cutter and holder for	O. H. Watkins	459,666	Sept. 15	1786	449	56	1426
Grain-binders. Bundle-carrier for	M. Kane	458,973	Sept. 1	660	161 162	56	1194
Grain-binders. Bundle-discharger for	J. R. Severance	452,461	May 19	1665	417	55	904
Grain-binders. Cord attachment for	C. A. Bauer	466,088	Dec. 29	3349	856	57	1813
Grain-binders. Cord-knotter for	A. Stark	465,436	Dec. 15	2276	584 585	57	1587
Grain-binders. Tension device for	M. Kane	462,903	Nov. 10	1091	283	57	771
Grain-binders. Tripping mechanism for	O. O. Storle	451,957	May 12	792	200 201 532 534	55	736
Grain-binding machine	S. L. McColloch	458,261	Aug. 25	2174	533 534	56	967
Grain carrier and packer	W. H. Knapp	453,647	June 9	742	191	55	1296
Grain-cleaner	F. M. Shaw	450,198	Apr. 14	812	204	55	164
Grain-cleaner	S. Stewart	449,599	Mar. 31	3786	950	54	1869
Grain cleaning and separating machine	C. Cloz	466,125	Dec. 29	3406	872 873	57	1824
Grain-cleaning device	F. F. Landis	447,834	Mar. 10	918	230 231	54	1299
Grain-cleaning machine	G. A. Lanaux	459,636	Sept. 15	1744	438	56	1418
Grain-cleaning machines, roller-mills, &c. Feed device for	W. W. Huntley	447,072	Feb. 24	2567	637	54	1037
Grain-cleaning mill	L. Bartholomew	456,077	July 14	1228	323	56	242
Grain, &c. Combined purifying and dust-collecting machine for	C. A. Barnard	460,078	Sept. 22	2414	604	56	1552
Grain-conveyer	J. B. Bartholomew	446,566	Feb. 17	1743	429	54	871
Grain-conveyer. Pneumatic	F. E. Duckham	462,539	Nov. 3	502	123	57	647
Grain-distributing spout. Double-swivel	E. D. Mayo	464,101	Dec. 1	142	35	57	1164
Grain-drier	J. V. Curlin	448,132	Mar. 10	1393	355 356 357	54	1392
Grain-drier	F. H. C. Mey	456,732	July 28	2293	607 608 609	56	463
Grain-drier floor	J. H. E. Rathmann	465,203	Dec. 15	1903	482 483	57	1516
Grain-drill	A. L. and D. L. Baughman	450,478	Apr. 14	1263	308 309	55	247
Grain-drill	A. F. Brown	455,470	July 7	270	68, 69	56	54

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Grain-drill	C. M. Clinton and G. W. Kirkpatrick	444,290	Jan. 6	490	128	54	98
Grain-drill	G. W. Gates	459,121	Sept. 8	911	218	56	1250
Grain-drill	J. Hayden	457,277	Aug. 4	554	145 146	56	635
Grain-drill	W. F. Hoyt	446,230	Feb. 10	1186	290 291	54	746
Grain-drill	G. W. Kirkpatrick and E. J. Corser	446,636	Feb. 17	1841	456	54	890
Grain-drill	D. E. McSherry	458,371	Aug. 25	2370	578	56	1003
Grain-drill	C. E. Patric	452,801	May 26	2191	549 550	55	1014
Grain-drill	O. L. Peterson	463,542	Nov. 17	2100	553 554	57	974
Grain-drill	H. J. Phelps	448,991	Mar. 24	2785	705	54	1675
Grain-drill	F. Stehke and G. Propst	465,220	Dec. 15	1923	490	57	1521
Grain-drill	D. C. and W. A. Van Brunt	461,292	Oct. 13	1156	295	57	231
Grain-drill and fertilizer-distributor. Combined	E. D. Mead	455,048	June 30	2936	747	55	1735
Grain-drill cleaner	C. H. Johnson	453,356	June 2	274	73	55	1199
Grain-drill shoe	J. M. Szarkowski	452,245	May 12	1293	324	55	828
Grain-drills. Hopper and shoe for.	W. F. Hoyt	448,861	Mar. 24	2606	654	54	1639
Grain-elevator	B. Seidel	455,432	July 7	217	55	56	44
Grain, &c. Elevator and cleaner for.	J. R. Beynon	459,570	Sept. 15	1619	406	56	1395
Grain-elevators. Power-transmission for	D. A. Robinson	460,661	Oct. 6	201	52	57	42
Grain-meter	E. N. Bachelder and F. E. Lovejoy	462,680	Nov. 10	734	191	57	701
Grain-meter	C. S. Beggs	450,213	Apr. 14	835	210	55	169
Grain-meter	C. J. Hartley	463,988	Nov. 24	2821	731 732	57	1119
Grain-meter	H. E. Hawk	461,335	Oct. 13	1220	310 311	57	244
Grain-meter	H. E. Hawk	461,336	Oct. 13	1224	311 312	57	245
Grain-meter	H. E. Hawk	461,385	Oct. 13	1315	332 333	57	262
Grain-meter	J. Henry	462,006	Oct. 27	2376	589	57	478
Grain-meter	J. B. Michener and T. L. Varns	444,709	Jan. 13	1133	292	54	232
Grain-meter	L. L. Sharp	453,068	May 26	2630	664	55	1099
Grain-meter	H. B. Stinson	466,312	Dec. 29	3698	944	57	1879
Grain-meter	J. O. Wyman	453,305	June 2	194	53	55	1184
Grain-meter. Automatic	W. A. Johnson	448,238	Mar. 17	1576	402 403	54	1436
Grain-mills. Safety device for.	P. J. Parsons	465,196	Dec. 15	1893	480	57	1513
Grain-register	J. H. Peachey	446,788	Feb. 17	2070	516	54	935
Grain register and sacker	J. Lukaszewig	457,283	Aug. 4	562	149	56	637
Grain-sampler	J. M. Stacy	460,666	Oct. 6	208	54	57	43
Grain-scourer	W. B. Anthony	454,159	June 16	1470	386	55	1444
Grain-scourer	A. C. Brantingham	452,434	May 19	1608	399 400	55	895
Grain-scourer	H. H. Ring	458,495	Aug. 25	2565	625	56	1040
Grain-scourer	C. Rippin	451,580	May 5	204	49	55	618
Grain. Scouring and fanning mill for cleaning	C. Russ	456,207	July 21	1425	377	56	290
Grain-scouring apparatus	J. Szawinsky and S. Grozea	455,132	June 30	3081	785	55	1764
Grain-scouring machine	W. Morgan	444,763	Jan. 13	1233	320	54	249
Grain-scouring machine	P. Provost	457,795	Aug. 18	1420	368 369	56	817
Grain-scouring machine	D. E. Sibley	447,370	Mar. 3	153	42	54	1147
Grain-scouring machine	D. E. Sibley	457,380	Aug. 11	768	197	56	683
Grain-separating apparatus	L. A. Simons	446,794	Feb. 17	2086	520	54	939
Grain-separating screen	C. Closz	455,998	July 14	1121	264	56	221
Grain-separator	L. G. Caldwell	453,232	June 2	78	21	55	1163
Grain-separator	C. Closz	455,997	July 14	1118	293 294	56	221
Grain-separator	R. A. Kelly	466,243	Dec. 29	3581	916	57	1857
Grain-separator	F. F. Landis	447,433	Mar. 3	263	66, 67	54	1167
Grain-separator	J. McGill and T. Ryan	460,691	Oct. 6	261	64	57	52
Grain-separator	D. Scott	447,845	Mar. 10	940	236	54	1303
Grain separator and cleaner	G. B. Howland	458,713	Sept. 1	253	60	56	1113
Grain separator and cleaner	H. H. Ring	459,552	Sept. 15	1591	398 399	56	1390
Grain-shoveling device	A. G. Mather	453,413	June 2	376	97	55	1218
Grain-silo. Floating	L. Smith	446,027	Feb. 10	845	204	54	684
Grain-spout	J. Simpson	445,645	Feb. 3	204	54	54	552
Grain-spout lining	L. R. Topp	460,489	Sept. 29	3042	762	56	1680
Grain-testing apparatus	P. Heiusdorf	454,931	June 30	2723	694	55	1694
Grain. Thrasher attachment for elevating and conveying	C. J. Hartley	464,501	Dec. 8	760	185	57	1289
Grain transfer, storage, and preservation station. Pneumatic	L. Smith	446,026	Feb. 10	839	202 203 204	54	684
Graining-roller	W. H. Landon	449,079	Mar. 24	2920	741	54	1701
Granular substances. Receptacle for	B. F. Pitezel	460,181	Sept. 29	2577	643	56	1592
Grape trimming and packing table	J. H. Edington	447,041	Feb. 24	2518	625	54	1027
Grapple	J. H. Dungan	454,335	June 16	1723	449	55	1493
Grapple	D. J. Reese	452,950	May 26	2440	615	55	1062
Grapple and grapple-operating mechanism	C. F. Walter	451,090	Apr. 28	2233	553	55	453
Grapppling-shackle	G. Reid	465,069	Dec. 15	1672	426	57	1473
Grass-cutting implement	P. Burnett	451,452	May 5	9	3	55	580
Grass-cutting machine. Hand-power	M. W. Wright	462,788	Nov. 10	898	235	57	733
Grass-receptacle	S. F. Powell	459,460	Sept. 15	1443	363	56	1362
Grate	J. Beisheim	449,029	Mar. 24	2846	724	54	1687
Grate	L. W. Clayton	448,634	Mar. 24	2238	562	54	1569
Grate	L. L. Culver	450,058	Apr. 7	603	151	55	117
Grate	J. Evans	454,464	June 23	1932	504	55	1541
Grate	E. Gibson	464,185	Dec. 1	271	67	57	1186
Grate	E. J. Gordon	465,431	Dec. 15	2270	582	57	1586
Grate	W. E. Kelly	450,315	Apr. 14	1007	247 250	55	200

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Grate	O. Pederson	456,733	July 28	2295	607	56	463
Grate	W. H. Russell	452,734	May 19	2083	524	55	985
Grate	R. H. Smith	445,575	Feb. 3	87	21	54	528
Grate	E. D. Van Stone	449,641	Mar. 31	3872	969	54	1886
Grate and flue	T. Rosser	450,040	Apr. 7	579	144	55	112
Grate attachment	G. W. Davis	464,930	Dec. 8	1405	354	57	1413
Grate attachment	O. C. Holden	446,681	Feb. 17	1917	477	54	903
Grate attachment. Center-draft.	E. O. Bartholomew	453,101	May 26	2689	678	55	1111
Grate attachment. Fire	H. A. Rowland	460,280	Sept. 29	5737	681	56	1622
Grate-bar. Movable	C. J. Dorrance	451,615	May 5	259	62, 63	55	629
Grate. Basket	J. Lewis	463,061	Nov. 10	1327	343	57	818
Grate. Boiler or stove	J. H. Waterman	445,416	Jan. 27	2281	592	54	472
Grate. Circulating water-bar	J. Reagan	464,649	Dec. 8	983	246	57	1333
Grate construction	R. A. Palmer	459,948	Sept. 22	2226	559	56	1517
Grate for burning hard-coal slack	S. J. Miles	454,490	June 23	1970	513	55	1548
Grate. Reciprocating	H. S. Williams	456,457	July 21	1839	488	56	367
Grate. Revolvable	P. L. Crowe	454,841	June 30	2543	654	55	1660
Grate shutter. Fire	W. H. Vance	453,765	June 9	925	240	55	1331
Grate-support	C. L. Beers	445,873	Feb. 3	591	145	54	628
Grate. Traveling	R. J. Shoemaker	465,295	Dec. 15	2052	524	57	1543
Grates. Shaking attachment for rocking	W. L. Morris	456,244	July 21	1494	396	56	302
Grates. Vapor-forming attachment for	M. Noble	458,328	Aug. 25	2294	560	56	989
Grater	A. Kramer and W. Eriksson	452,015	May 12	884	227	55	754
Grater	G. H. Thomas	458,041	Aug. 13	1827	476	56	894
Grater. Culinary	B. H. Cook	448,794	Mar. 24	2494	624	54	1619
Grating. Jail or other	P. J. Pauly, Jr.	450,678	Apr. 21	1606	386	55	330
Grave-annunciator	W. H. White	455,446	July 7	335	60, 61	56	48
Gravers while being ground. Holder for	A. E. Francis	449,673	Apr. 7	43	10	55	10
Grease-cup	E. H. Benners	448,471	Mar. 17	1969	495	54	1511
Grease. Process of and apparatus for purifying	G. Race	446,117	Feb. 10	987	243	54	711
Grease-trap for sinks	J. and J. F. Prendergast	454,665	June 23	2262	581	55	1599
Grease trap or interceptor	T. Griffiths	460,673	Oct. 6	222	56	57	46
Grinder	C. H. Norton	458,036	Aug. 18	1819	474	56	892
Grinder. Cutter or reamer	E. W. Bradley	444,875	Jan. 20	1444	375	54	298
Grinder. Sickle	E. D. Middlekauff	460,212	Sept. 29	2625	655	56	1601
Grinder. Sickle	A. Moxley	464,178	Dec. 1	256	63	57	1184
Grinder. Tool	E. C. Phillips	451,515	May 5	106	26	55	599
Grinding and amalgamating mill	M. Crawford. (Reissue)	11,180	July 28	2632	689	56	524
Grinding and amalgamating pan	W. Roberts	448,731	Mar. 24	2396	599	54	1600
Grinding and polishing machine	B. E. Sperry	446,170	Feb. 10	1094	268	54	729
Grinding apparatus. Sickle	D. A. Danforth	464,817	Dec. 8	1249	313	57	1382
Grinding cutlery and other articles. Means for	A. Johnston	465,376	Dec. 15	2194	562	57	1570
Grinding-drills. Indicator for	T. A. Taylor	464,290	Dec. 1	453	108	57	1221
Grinding, drying, and incorporating machine	P. C. Close	447,808	Mar. 10	880	219	54	1291
Grinding-machine	D. Ashton	451,192	Apr. 28	2422	598	55	493
Grinding-machine	W. H. Brown	461,663	Oct. 20	1825	451	57	363
Grinding-machine	A. Johnston	465,478	Dec. 22	2346	601	57	1611
Grinding-machine	A. B. Landis	444,121	Jan. 6	226	55	54	46
Grinding-machine	A. B. Landis	446,148	Feb. 10	1046	257	54	721
Grinding-machine	C. H. Norton	453,022	May 26	2548	645	55	1083
Grinding-machine	I. R. Titus	465,737	Dec. 22	2754	703	57	1689
Grinding-machine	G. W. Watrous	453,297	June 2	178	49, 50	55	1181
Grinding-machine attachment	C. T. Davis	461,567	Oct. 20	1671	409	57	335
Grinding machine. Cutlery	H. A. Axtell	451,012	Apr. 28	2136	528	55	438
Grinding machine. Knife	E. J. Wheeler	463,017	Nov. 10	1258	326	57	804
Grinding machine. Oval	R. Friedel	445,169	Jan. 27	1920	495	54	399
Grinding machine. Roll	F. O. Fry	461,828	Oct. 27	2099	517	57	424
Grinding-machine. Rotary	W. J. McGehe	452,004	May 12	870	222	55	751
Grinding machine. Sickle	A. Knobel	465,712	Dec. 22	2723	695	57	1682
Grinding machine. Tool	J. S. Bancroft	460,496	Sept. 29	3054	766	56	1682
Grinding machine. Tool	J. S. Bancroft	460,497	Sept. 29	3053	767	56	1683
Grinding machine. Tool	A. S. Vose	457,387	Aug. 11	780	200	56	685
Grinding machine. Tool	C. Wing	457,755	Aug. 11	1355	350	56	794
Grinding machine. Top-roll	J. F. Nichols	448,300	Mar. 17	1700	431	54	1460
Grinding machines. Feed mechanism for knife	C. E. Hudson	448,616	Mar. 17	2198	550	54	1554
Grinding-mill	H. A. Duc, Jr.	451,111	Apr. 28	2265	561	55	485
Grinding-mill	H. A. Duc, Jr.	451,112	Apr. 28	2268	562	55	465
Grinding-mill	L. D. Harding	450,014	Apr. 7	542	135	55	105
Grinding-mill	J. and A. J. Jones	446,219	Feb. 10	1171	287	54	743
Grinding-mill	A. Malsch	445,227	Jan. 27	2013	518	54	417
Grinding-mill	J. D. Mawhood	453,981	June 9	1213	316	55	1388
Grinding-mill	J. M. Nichols	449,229	Mar. 31	3157	796	54	1754
Grinding-mill	V. L. Rice	445,821	Feb. 3	518	124	54	612
Grinding-mill	C. Willard	450,689	Apr. 21	1623	389	55	333
Grinding-mill	J. C. Woodcock	447,596	Mar. 3	530	130	54	1217
Grinding-mill. Roller	W. D. Gray	444,348	Jan. 6	571	146	54	113
Grinding-mill. Roller	W. D. Gray	444,349	Jan. 6	573	146	54	114
Grinding-mill. Roller	W. D. Gray	444,350	Jan. 6	574	146	54	114
Grinding-mill. Roller	C. G. W. Kapler	447,951	Mar. 10	1115	280	54	1336

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Grinding-mill roller-mounting	H. A. Duc, Jr	451,392	Apr. 28	2717	675	55	551
Grinding mower-knives. Machine for	R. Dutton	457,079	Aug. 4	233	59, 60	56	578
Grinding or polishing. Machinery or apparatus for	R. J. and A. Edwards	465,170	Dec. 15	1855	{ 470 471 }	57	1506
Grinding or polishing wheel stand	C. H. Norton	461,587	Oct. 20	1700	416	57	340
Grinding-pan	W. G. Stevenson	462,336	Nov. 3	183	47	57	585
Grinding-ring dress	H. C. Staver	464,592	Dec. 8	896	220	57	1316
Grinding-rolls. Adjusting	R. A. Murray	453,376	June 2	303	79	55	1204
Grinding the edges of hand-saw blanks and other metallic strips. Machine for	J. Wallwork	448,099	Mar. 10	1345	344	54	1382
Grindstone	J. B. Kibler	446,920	Feb. 24	2317	576	54	991
Grindstone attachment	J. C. Rainey	455,113	June 30	3055	776	55	1759
Grindstone attachment	M. Raymond	450,191	Apr. 14	795	{ 201 202 }	55	161
Grindstone-dresser	J. M. Housel	456,954	Aug. 4	53	12, 13	56	542
Grip device. Intermittent	H. L. Chapman	449,732	Apr. 7	138	34	55	28
Grip-testing machine	T. E. J. Schaibly	459,022	Sept. 8	746	{ 181 182 }	56	1218
Gripper-finger	E. L. Megill	448,753	Mar. 24	2435	609	54	1607
Gripping device	H. C. Buddenberg	458,614	Sept. 1	102	23	56	1086
Grooving-machine	H. S. Grannis	462,840	Nov. 10	989	256	57	751
Grooving-machine	C. E. Thurlow	460,803	Oct. 6	420	104	57	83
Grooving-machine attachment	G. A. Kennedy	450,463	Apr. 14	1241	303	55	243
Ground. Support for articles while being	A. J. Sweeney and T. A. Myers	455,418	July 7	194	50	56	40
Grubbing-machine	C. H. Mohland and L. Kerber	444,843	Jan. 20	1358	352	54	282
Guano-distributor and seed-planter	H. Vickery	465,149	Dec. 15	1824	462	57	1500
Guano-distributor and seed-planter	C. W. Wood	465,081	Dec. 15	1699	432	57	1478
Guard:							
See Berth-guard. Pocket-guard.							
Car-guard. Railway cattle-guard.							
Car safety-guard. Railway stock-guard.							
Cat-guard. Railway surface cattle-guard.							
Cattle-guard. Railway-track foot-guard.							
Door-guard. Railway trolley-guard.							
Elevator-guard. Razor-guard.							
Fermenting-vat guard. Rein-guard.							
Finger-guard. Saw-guard.							
Fork-guard. Sewing-machine thread-guard.							
Insect-guard. Shutter-fastener guard.							
Key-hole guard. Snow-guard.							
Knife-guard. Temple-guard.							
Lamp-guard. Torpedo-guard.							
Life-guard. Vehicle-wheel guard.							
Loom shuttle-guard. Vehicle-wheel guard.							
Mill-carriage-wheel guard.							
Guiding and gaging implement for masons	J. I. Kelley	458,464	Aug. 25	2508	{ 609 610 }	56	1029
Guitar	C. F. Geiger	454,905	June 30	2657	681	55	1682
Guitar arm-rest	J. Arencibias	446,806	Feb. 17	2106	524	54	943
Guitars, &c. Bridge for	C. E. Mendenhall and F. E. Pugh	462,869	Nov. 10	1036	268	57	760
Guitars. Capodastro for	A. L. Gassett	449,216	Mar. 31	3140	792	54	1750
Guitars. Combined bridge and tail-piece for	A. H. Hines	462,554	Nov. 3	531	129	57	632
Guitars, &c. Stringing	H. Lindemann	458,789	Sept. 1	361	88	56	1135
Guitars. Tail-piece for	M. Kersten	463,631	Nov. 24	2263	596	57	1014
Gumming-machine	W. J. Anderson	451,011	Apr. 28	2135	528	55	437
Gun	H. A. Harvey	460,261	Sept. 29	2693	.....	56	1615
Gun	T. Nordenfelt	454,374	June 16	1791	{ 466 467 468 }	55	1505
Gun. Air	R. Aldrich	459,732	Sept. 22	1889	477	56	1453
Gun. Air	C. J. Hamilton	455,942	July 14	1031	270	56	205
Gun. Air	M. F. Stanley	461,224	Oct. 13	1060	268	57	211
Gun. Automatic	H. S. Maxim	447,524	Mar. 3	425	{ 104 105 }	54	1198
Gun. Automatic	H. S. Maxim	447,525	Mar. 3	429	106	54	1198
Gun. Automatic	H. S. Maxim	447,836	Mar. 10	923	{ 231 232 }	54	1300
Gun. Automatic	H. S. Maxim	459,828	Sept. 22	2038	{ 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000	56	1482
Gun. Automatic breech-loading	H. S. Maxim	453,702	June 9	831	{ 211 212 213 214 215 216 }	55	1313
Gun. Automatic machine	H. S. Maxim	447,837	Mar. 10	927	{ 232 233 }	54	1300
Gun-barrel	P. Manser	451,768	May 5	501	124	55	673
Gun-barrel-drilling machine	C. W. Sponsel	447,713	Mar. 3	695	{ 174 175 }	54	1249
Gun-barrel. Rifled	J. W. Carver	460,102	Sept. 22	2453	613	56	1560
Gun-barrels. Fastening device for	G. W. Cilley	450,448	Apr. 14	1322	299	55	239
Gun-barrels. Fountain-swab for	L. Bagger	464,843	Dec. 8	1285	322	57	1390
Gun. Breakdown	G. Henry	461,679	Oct. 20	1849	458	57	368
Gun. Breech-loading	P. Blachon and E. Mimard	444,574	Jan. 13	941	244	54	195
Gun. Breech-loading	W. R. Finch	452,699	May 19	2027	{ 507 508 }	55	974
Gun. Breech-loading	I. Larsen	452,704	Sept. 1	240	57, 58	56	1111
Gun. Breech-loading	R. T. Torkelson	452,126	May 12	1103	281	55	790
Gun. Breech-loading	J. Waruant-Creton	445,880	Feb. 3	603	{ 148 149 }	54	630
Gun. Breech-loading	H. W. Whitelaw	449,988	Apr. 7	508	127	55	99

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Gun. Breech-loading shot.....	G. S. Bartlett.....	464,060	Dec. 1	76	20, 21	57	1151
Gun-carriage.....	J. B. G. A. Canet.....	455,166	June 30	3138	797	55	1774
Gun-carriage. Pneumatically-operated.....	H. A. Spiller.....	463,463	Nov. 17	1974	514	57	951
Gun-carriages. Friction-brake for.....	C. Röstell.....	466,261	Dec. 29	3617	925	57	1864
Gun-carriages. Pneumatic recoil-check for.....	H. A. Spiller.....	463,462	Nov. 17	1971	514	57	951
Gun-carriages. Recoil-check for.....	G. G. Greenough.....	462,484	Nov. 3	416	101	57	629
Gun-carriages. Recoil-check for disappearing.....	J. B. G. A. Canet.....	447,227	Feb. 24	2847	706	54	1090
Gun-carriages. Self-acting brake for.....	A. T. Resow.....	458,491	Aug. 25	2558	624	56	1038
Gun-cleaner.....	A. P. Odell and W. H. Ferris.....	460,986	Oct. 13	695	179	57	142
Gun-cotton. Making.....	H. S. Maxim.....	454,281	June 16	1646	432	55	1478
Gnn. Gas repeating.....	P. Giffard.....	452,882	May 26	2321	586	55	1039
Gun-loading attachment.....	H. A. Spiller.....	457,293	Aug. 4	578	153	56	640
Gun-lock.....	J. Conner.....	464,215	Dec. 1	329	80	57	1196
Gun-lock.....	Z. W. Shields.....	456,166	July 21	1362	362	56	278
Gun. Machine.....	R. H. Armit.....	446,807	Feb. 17	2106	524	54	943
Gun. Machine.....	T. R. Cook.....	458,268	Aug. 25	2198	536	56	971
Gun. Magazine.....	J. M. and M. S. Browning.....	465,339	Dec. 15	2126	537	57	1557
Gun. Magazine.....	L. M. R. Daudeteau.....	458,824	Sept. 1	428	546	56	1147
Gun. Magazine.....	K. R. Milovanovitch-Koka.....	453,303	June 2	185	103	55	1182
Gun. Magazine.....	H. A. Pitcher.....	452,192	May 12	1210	104	55	810
Gun. Magazine.....	C. J. Wahlquist.....	450,900	Apr. 21	1945	306	55	393
Gun-mounting.....	L. Raskazoff and J. E. Compton- Bracebridge.....	463,075	Nov. 10	1355	477	57	823
Gun-mounting.....	J. Vavasaur.....	450,829	Apr. 21	1839	350	55	373
Gnn. Pneumatic.....	H. Eichbaum.....	450,693	Apr. 21	1627	447	55	334
Gnn. Pnenmatic.....	H. Eichbaum.....	453,692	June 9	811	448	55	1310
Gnn. Pneumatic.....	H. Eichbaum.....	463,623	Nov. 24	2247	591	57	1011
Gnn. Pneumatic.....	J. R. N. Owens.....	458,329	Aug. 25	2295	592	56	990
Gun. Quick-firing.....	E. von Skoda.....	448,841	Mar. 24	2560	642	54	1631
Gnn. Quick-firing.....	J. Vavasaur.....	451,864	May 5	631	643	55	699
Gun. Recoil-operated machine.....	A. Odcolek.....	454,403	June 16	1827	156	55	1512
Gun. Recoil-operated magazine.....	R. M. Catlin.....	454,993	June 30	2841	478	55	1717
Gun. Repeating breech-loading.....	W. H. Ostrander.....	450,773	Apr. 21	1740	479	55	355
Gun. Repeating spring air.....	A. B. Ireland.....	458,834	Sept. 1	443	107	56	1150
Gun-sight.....	J. W. Carver.....	453,828	June 9	1012	264	55	1348
Gun-sight.....	W. Lyman.....	447,886	Mar. 10	1006	254	54	1315
Gun-sight.....	W. L. Marble.....	450,469	Apr. 14	1249	305	55	244
Gun-sight. Adjustable.....	W. L. Marble.....	450,468	Apr. 14	1248	305	55	244
Gun-sight. Telescopic.....	Y. Patchen.....	465,088	Dec. 15	1713	436	57	1481
Gun-sling attachment.....	R. T. Forbes.....	450,785	Apr. 21	1760	427	55	358
Gun. Spring.....	C. C. Cotten.....	457,812	Aug. 18	1445	376	56	822
Gun. Spring-air.....	H. H. Passage.....	446,711	Feb. 17	1959	488	54	912
Gun. Spring air.....	M. F. Stanly.....	454,081	June 16	1358	354	55	1422
Gun-tool.....	C. and C. E. Tomlinson.....	450,323	Apr. 14	1022	252	55	203
Gun with pneumatically-operated magazines. Mag- azine.....	R. Dinsmore.....	444,666	Jan. 13	1066	277	54	218
Guns. Breech mechanism for.....	A. Welln.....	451,865	May 5	634	158	55	699
Guns. Safety-catch for hammerless.....	W. E. Jenkins.....	465,764	Dec. 22	2804	718	57	1698
Guns. Cartridge-crimp for magazine.....	K. Krnka.....	449,287	Mar. 31	3256	825	54	1772
Guns. Cartridge-feed case for magazine.....	K. R. Milovanovitch-Koka.....	447,577	Mar. 3	502	123	54	1211
Guns. Cartridge-stop for magazine.....	P. Mauser.....	455,514	July 7	338	87	56	67
Guns. Hand-held for.....	F. Nye, R. F. Denham, and O. Knudson.....	445,192	Jan. 27	1958	506	54	406
Guns. Hydropneumatic operating mechanism for.....	H. A. Spiller.....	458,345	Aug. 25	2323	567	56	995
Guns. Mechanism for extracting and inserting breech-plugs of heavy.....	H. A. Spiller.....	458,508	Aug. 25	2586	630	56	1044
Guns. Mounting for rapid-fire.....	F. F. Fletcher.....	457,641	Aug. 11	1166	298	56	759
Guns. Reservoir for pneumatic.....	H. Eichbaum.....	456,617	July 28	2107	557	56	427
Guns. Safety device for breech-loading.....	F. A. Hollenbeck.....	446,166	Feb. 10	1088	267	54	728
Guns. Safety-lock for breech-boits of.....	P. Mauser.....	449,352	Mar. 31	3382	852	54	1792
Gunner's arm-rest.....	R. B. Sproul.....	454,300	June 16	1674	439	55	1484
Gymnastic apparatus.....	C. H. Dickelman.....	447,811	Mar. 10	884	220	54	1292
Gymnastic apparatus.....	T. Peterson.....	451,411	Apr. 28	2750	680	55	557
Gymnastic live ball.....	T. Peterson.....	450,185	Apr. 14	788	199	55	160
Gypsum. Treatment and preparation of.....	F. G. H. Rothe.....	455,580	July 7	461	157	56	89
Gyroscope.....	G. E. Sire.....	462,512	Nov. 3	455	112	57	637
Gyroscope or revolving toy.....	J. H. Wilson.....	461,948	Oct. 27	2292	568	57	462
Hackle for drawing and roving. Gill.....	J. McGrath.....	460,649	Oct. 6	183	47	57	38
Hair and composition for use in the same. Making ornaments, &c., from.....	M. I. Waldron.....	449,750	Apr. 7	164	55	33	
Hair and preparing the same. Moth-proofed.....	J. and J. Ruch, Jr.....	459,897	Sept. 22	2151	56	1504	
Hair-clipper.....	W. R. Bonham.....	458,940	Sept. 1	611	150	56	1184
Hair-curler.....	I. E. Hervey.....	456,819	July 28	2441	643	56	490
Hair-curler.....	W. H. Sweeney.....	451,984	May 12	837	214	55	745
Hair-cutting gage.....	A. Marsh.....	459,012	Sept. 8	721	177	56	1214
Hair, feathers, &c. Apparatus for washing and drying.....	F. G. Wiselogle.....	465,306	Dec. 15	2067	528	57	1547

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Hair. Manufacturing curled.	P. Woll, Jr.	458,721	Sept. 1	266		56	1116
Hair-picker.	O. K. Collins	462,034	Oct. 27	2419	600	57	486
Hair-pin.	W. F. Young	452,055	May 12	974	248	55	768
Hair-pin exhibitor.	L. D. Nessler	460,445	Sept. 29	2970	743	56	1666
Hair-pin machine.	F. E. Edgerly and C. E. Gould	452,778	May 26	2156	540	55	1007
Hair scenery and ornaments. Producing human.	A. E. Jarvis	452,522	May 19	1754	441	55	921
Hair-tonic.	S. T. Fraser, W. E. Gilliland, and D. J. Wilson.	454,401	June 16	1825		55	1511
Hair-tonic.	M. McGillivroy	451,508	May 5	98		55	598
Hair-tonic.	L. C. Peters	451,838	May 5	595		55	693
Hair-working machine.	G. A. Williams	465,741	Dec. 22	2765	{ 706 707 }	57	1691
Halter.	R. Bruce	459,541	Sept. 15	1576	394	56	1386
Halter.	H. J. Hush	464,283	Dec. 1	443	106	57	1219
Halter.	L. E. Shippy	444,993	Jan. 20	1642	421	54	337
Halter.	H. W. Sisson	462,743	Nov. 10	824	215	57	719
Halters. Casting for rope.	G. C. Edwards and B. V. Batlington	465,777	Dec. 22	2822	723	57	1702
Halyard-clamp.	W. H. Phillips	452,387	May 19	1528	378	55	880
Ham-cover.	W. Wohltmann	465,742	Dec. 22	2773	707	57	1693
Ham-stuffing machine. Boneless.	G. N. De Loria	454,112	June 16	1395	365	55	1429
Hame.	L. Anderson	463,223	Nov. 17	1594	416	57	877
Hame.	J. J. Baskfield	458,355	Aug. 25	2340	571	56	998
Hame.	A. M. Brown and D. S. King	451,366	Apr. 28	2681	664	55	544
Hame.	W. S. Carr	445,584	Feb. 3	104	25	54	531
Hame.	A. V. Cronk	453,464	June 2	458	117	55	1235
Hame.	W. Easterbrook	452,600	May 19	1872	471	55	944
Hame.	C. E. Johnson	454,682	June 23	2287	586	55	1605
Hame.	R. E. Krumm	447,466	Mar. 3	337	83	54	1181
Hame.	W. H. Simmons	461,852	Oct. 27	2130	525	57	430
Hame.	C. H. Van Ortwick	461,003	Oct. 13	716	184	57	146
Hame.	F. Van Patten	458,604	Sept. 1	85	19	56	1082
Hame and horse-collar. Combined.	N. B. Riley	456,850	July 28	2502	657	56	499
Hame attachment.	W. B. Abrams	450,550	Apr. 14	1362	336	55	269
Hame-fastener.	L. Anderson	463,222	Nov. 17	1594	415	57	877
Hame-fastener.	J. C. Covert	458,415	Aug. 25	2438	594	56	1016
Hame-fastener.	C. S. Ellis	454,400	June 16	1824	478	55	1511
Hame-fastener.	A. J. Sonner	463,050	Nov. 10	1362	352	57	825
Hame-fastener.	C. H. Smith	447,587	Mar. 3	520	127	54	1215
Hame-fastener.	J. G. Wood	451,098	Apr. 28	2244	556	55	461
Hame-hook.	W. J. Dankworth	444,664	Jan. 13	1065	277	54	218
Hammer.	J. W. Carver	463,417	Nov. 17	1915	500	57	938
Hammer.	H. B. Hackett	450,011	Apr. 7	537	134	55	105
Hammer.	W. Montgomery	459,643	Sept. 15	1755	441	56	1420
Hammer.	J. C. Richardson	464,894	Dec. 8	1360	342	57	1404
Hammer.	A. F. Street	455,776	July 14	775	204	56	158
Hammer. Automatic.	E. Thomson	455,905	July 14	980	256	56	106
Hammer. Drop.	R. L. Barclay	459,607	Sept. 15	1681	420	56	1407
Hammer. Drop.	J. Bass	459,131	Sept. 8	924	222	56	1253
Hammer. Drop.	E. Hammesfahr	463,574	Nov. 17	2155	569	57	985
Hammer for driving.	A. Wilzin	447,093	Feb. 24	2593	643	54	1043
Hammer. Glazier's.	W. Jacoby	464,217	Dec. 1	331	51	57	1196
Hammer-head.	T. C. Grimshaw	465,176	Dec. 15	1864	473	57	1508
Hammer.	R. Neilson	453,720	June 9	858	221	55	1318
Hammer. Power.	A. Beaudry	461,917	Oct. 27	2243	{ 554 555 }	57	452
Hammer. Power.	C. M. Collins	456,616	July 28	2106	556	56	427
Hammer. Power.	W. Jones	454,824	June 23	2513	647	55	1647
Hammer. Power.	C. A. Vaughn	459,092	Sept. 8	852	206	56	1237
Hammer sharpener. Bush.	L. Mayer	464,577	Dec. 8	873	215	57	1311
Hammer. Steam.	G. Guild	456,988	Aug. 4	97	24	56	552
Hammer. Steam.	J. A. Henckels	447,824	Mar. 10	903	225	54	1296
Hammock.	A. Beals	458,668	Sept. 1	221	52	56	1108
Hammock.	J. J. Dicks	445,049	Jan. 20	1728	445	54	353
Hammock.	C. Knoernschild	459,043	Sept. 8	782	190	56	1225
Hammock.	J. B. Patterson	451,186	Apr. 28	2407	595	55	490
Hammock-chair.	J. C. Bach	454,248	June 16	1595	420	55	1469
Hammock-chair.	R. Billeaux	445,492	Jan. 27	2389	621	54	492
Hammock-holder.	J. I. McCarthy	448,584	Mar. 17	2134	535	54	1543
Hammock-stretcher.	A. J. Adams	451,009	Apr. 28	2131	527	55	437
Hammock-support and canopy-holder.	F. Welling	460,804	Oct. 6	422	105	57	84
Hammock. Woven-wire.	H. Stiles	466,013	Dec. 29	3233	824	57	1789
Hammocks, chairs, swings, &c. Support for.	W. F. Parmelee	466,010	Dec. 29	3228	{ 822 823 }	57	1788
Hand-bag. Extension.	C. W. Brewer	465,449	Dec. 22	2300	590	57	1602
Hand-drill.	J. F. Steward	448,689	Mar. 24	2325	583	54	1587
Hand or foot warmer.	J. T. Ellis	444,395	Jan. 6	646	168	54	127
Hand-rake.	O. M. Knox	453,011	May 26	2535	641	55	1081
Hand-rake.	D. L. Pinkham	464,802	Dec. 8	1234	307	57	1379
Handle:							
See Anger-handle.	Detachable handle.						
Bag-handle.	File-handle.						
Bicycle-handle.	Lock and latch handle.						
Bowl-handle.	Mower-handle.						
Brake-handle.	Pendent handle.						
Brush-handle.	Saw-handle.						
Carriage-handle.	Tool-handle.						
Casket-handle.	Trowel-handle.						
Chisel-handle.	Valve-handle.						
Coffee-pot handle.	Velocipede-handle.						
Coffin-handle.	Wash-boiler handle.						
Handle.	G. H. Bradshaw	455,652	July 7	573	149	56	111
Handle.	L. M. Devore	448,477	Mar. 17	1981	497	54	1513
Handle.	C. R. Marvin	465,939	Dec. 29	3088	791	57	1763
Handle and brush. Combined.	T. Russell	450,041	Apr. 7	579	144	55	112
Handle attachment.	M. Zabel	462,918	Nov. 10	1111	289	57	775

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Handle-extension	J. Shilling, Jr	457,797	Aug. 18	1424	369	56	818
Handle-fastening	L. Frank	452,218	May 12	1251	316	55	818
Hanger:							
See Car-door hanger.	Leather-hanger.						
Car-house hanger.	Pantaloons-hanger.						
Car-step hanger.	Picture-hanger.						
Chandelier-display	Picture or mirror frame						
hanger.	hanger.						
Clothes-hanger.	Pipe-hanger.						
Clothes-line hanger.	Shaft-hanger.						
Coat-hanger.	Smoke-bell hanger.						
Curtain-hanger.	Tobacco-hanger.						
Door-hanger.	Trolley-wire hanger.						
Eaves-trough hanger.	Type-bar hanger.						
Electric-light hanger.	Vehicle-spring hanger.						
Harness-hanger.	Wire-hanger.						
Hat-hanger.	Wringing-machine						
Lamp-hanger.	hanger.						
Harmouica	M. Doerfel	449,755	Apr. 7	174	43	55	36
Harmonium	R. Essig	462,307	Nov. 3	147	37	57	578
Harness	B. B. Bower	448,292	Mar. 17	1688	427	54	1458
Harness	J. H. Bradshaw	450,134	Apr. 14	722	181	55	147
Harness	G. O. Brewer	449,201	Mar. 31	3120	787	54	1747
Harness	H. G. Cox	459,887	Sept. 22	2137	537	56	1501
Harness	N. H. Fetherman	448,832	Mar. 24	2547	639	54	1628
Harness	J. E. Foster	445,428	Jan. 27	2302	597	54	476
Harness	L. W. Hampton	451,821	May 5	574	141	55	688
Harness	J. J. Hardy	455,203	June 30	3208	814	55	1788
Harness	J. Hutchinson	451,381	Apr. 28	2701	670	55	547
Harness	T. W. Moore	457,591	Aug. 18	1586	413	56	847
Harness	J. R. Phelps	457,935	Aug. 18	1666	436	56	863
Harness	A. Russ	445,840	Feb. 3	543	132	54	617
Harness	A. T. Rutter	464,589	Dec. 8	894	220	57	1315
Harness	H. B. Sears and J. E. Tuttle	458,430	Aug. 25	2459	598	56	1020
					599		
Harness	D. B. Smith	444,401	Jan. 6	655	169	54	129
					170		
Harness	E. Walrath	455,991	July 14	1107	291	56	219
Harness	J. H. Whitaker	461,210	Oct. 13	1031	261	57	204
Harness	J. H. Whitaker	466,109	Dec. 29	3376	862	57	1818
Harness attachment	G. A. Harris	448,763	Mar. 24	2449	612	54	1610
Harness attachment	H. F. Wood and J. F. Young	458,881	Sept. 1	528	130	56	1166
Harness. Back-band for	W. M. Dunston	452,100	May 12	1061	268	55	782
Harness. Clip for attaching fly-nets to	L. Rosenberger	460,447	Sept. 29	2972	743	56	1667
Harness. Device for fastening pad-screws in	E. E. Reed	444,711	Jan. 13	1135	293	54	233
Harness. Electric device for	A. B. Holson	452,571	May 19	1825	458	55	934
					459		
Harness-hanger	J. Pearse and E. L. Keehn	464,266	Dec. 1	421	99	57	1214
					100		
Harness. Horse-training	J. H. Whitaker	444,032	Jan. 6	81	21	54	19
Harness-loop press	A. C. Woolman	446,804	Feb. 17	2104	523	54	943
Harness. Martingale attachment for	S. E. Mathews	444,648	Jan. 13	1041	270	54	214
Harness-pad	F. M. Boring	449,198	Mar. 31	3116	786	54	1746
Harness-pad	C. F. G. Stender	453,249	June 2	109	30	55	1169
Harness-pad cap	E. L. McClain	454,656	June 23	2250	578	55	1597
Harness-rosette	E. F. Pfeuger	444,370	Jan. 6	607	156	54	120
Harness. Spring appliance for	C. A. Hill	457,156	Aug. 4	343	88	56	599
Harness-support	N. B. Johnson	459,583	Sept. 15	1642	411	56	1399
Harness-tree. Adjustable	W. O. Miller	444,762	Jan. 13	1232	320	54	249
Harp	W. V. Batchelder, Jr.	456,977	Aug. 4	85	20	56	549
Harp	J. C. St. John	463,368	Nov. 17	1834	440	57	923
Harrow	W. P. Bettendorf	458,820	Sept. 1	421	100	56	1146
Harrow	H. Breiding	456,329	July 21	1625	430	56	328
Harrow	O. J. Childs	463,594	Nov. 17	2193	578	57	992
Harrow	S. M. Cole	464,726	Dec. 8	1120	277	57	1357
Harrow	J. W. Day	448,506	Mar. 17	2023	506	54	1521
Harrow	A. G. Dewey	450,060	Apr. 7	605	152	55	117
Harrow	J. J. Doughty	455,181	June 30	3175	804	55	1781
Harrow	A. C. Downey and A. H. Green	446,251	Feb. 10	1243	304	54	758
Harrow	G. W. French and W. P. Bettendorf	445,444	Jan. 27	2319	602	54	479
Harrow	J. H. Hanson	463,718	Nov. 24	2404	630	57	1040
Harrow	W. Hetrick	454,352	June 16	1749	455	55	1498
Harrow	C. J. Kirk	454,825	June 23	2514	647	55	1647
Harrow	C. La Dow	450,964	Apr. 21	2053	506	55	413
Harrow	C. La Dow	451,422	Apr. 28	2767	684	55	560
Harrow	C. La Dow	455,261	June 30	3288	833	55	1803
Harrow	C. La Dow	455,262	June 30	3289	833	55	1803
Harrow	W. F. Ludwick	455,256	June 30	3281	831	55	1802
Harrow	G. H. Mackey	448,446	Mar. 17	1936	488	54	1505
Harrow	J. Macphail	445,567	Feb. 3	110	27	54	532
Harrow	E. Merrill	456,153	July 21	1342	356	56	274
Harrow	G. Moore	460,149	Sept. 29	2531	630	56	1582
Harrow	J. H. Moore	447,472	Mar. 3	348	86	54	1123
Harrow	W. D. Napier	453,020	May 26	2546	644	55	1083
Harrow	A. J. Nellis	456,426	July 21	1796	475	56	359
Harrow	J. Pehrson	462,059	Oct. 27	2452	607	57	492
Harrow	J. Pehrson	462,060	Oct. 27	2453	607	57	492
Harrow	S. G. Randall	465,497	Dec. 22	2378	608	57	1617
					609		
Harrow	H. R. Roden	458,114	Aug. 18	1928	501	56	915
Harrow	J. A. Rube	457,218	Aug. 4	450	118	56	617
Harrow	J. A. Rube	464,522	Dec. 8	800	196	57	1297
Harrow	C. S. Ruef	450,088	Apr. 7	647	163	55	127
Harrow	M. Sattley	447,260	Feb. 24	2899	720	54	1101
Harrow	S. Schreckengost	449,592	Mar. 31	3774	947	54	1867

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.	
				Spec.	Dis.	Vol.	Page.
Harrow	D. B. Smith	446,820	Feb. 17	2125	528	54	947
Harrow	D. B. Smith	449,649	Mar. 31	3882	971	54	1887
Harrow	D. B. Smith	453,672	June 9	776	200	55	1303
Harrow	W. Strait	457,095	Aug. 4	255	66	56	582
Harrow	M. J. Todd	445,842	Feb. 3	546	133	54	618
Harrow	M. J. Todd	446,105	Feb. 10	968	238	54	707
Harrow	O. Tower	455,497	July 7	310	79	56	63
Harrow	A. D. Wallen	455,647	July 7	566	146	56	110
Harrow	E. E. Whipple	452,724	May 19	2068	520	55	982
Harrow	E. E. Whipple	464,345	Dec. 1	534	130	57	1235
Harrow	E. E. Whipple	464,346	Dec. 1	537	131	57	1236
Harrow	J. T. Yerby	462,346	Nov. 3	211	50	57	591
Harrow and cultivator	M. B. Gooing	452,641	May 19	1939	486	55	957
Harrow and cultivator	R. Lyons	446,624	Feb. 17	1822	450	54	885
Harrow and cultivator	A. E. McClendon	465,193	Dec. 15	1889	479	57	1513
Harrow and pulverizer. Sulky	C. D. Roberts	446,408	Feb. 10	1495	368	54	808
Harrow and roller	F. B. Harvey	461,334	Oct. 13	1218	310	57	243
Harrow and roller. Combined	E. T. Coombs	447,763	Mar. 10	793	197	54	1275
Harrow and roller. Combined	G. M. West	454,098	June 16	1360	360	55	1426
Harrow and sod-cutter. Combined	J. B. Okey	445,507	Jan. 27	2414	630	54	496
Harrow and weeder	W. A. Small	464,396	Dec. 1	603	149	57	1248
Harrow attachment	A. J. Halstead	452,784	May 26	2168	543	55	1010
Harrow. Cultivator	W. H. Wilson	460,418	Sept. 29	2938	734	56	1660
Harrow, cultivator, and pulverizer. Combined	S. L. Allen	463,609	Nov. 24	2223	587	57	1007
Harrow. Disk	G. M. Clark	444,662	Jan. 13	1058	275	54	217
Harrow. Disk	G. G. Crowley	449,871	Apr. 7	342	87.88	55	68
Harrow. Disk	R. W. Hardie	453,284	June 2	160	46	55	1178
Harrow. Disk	A. G. Hill	464,317	Dec. 1	494	118	57	1228
Harrow. Disk	C. La Dow	451,421	Apr. 28	2764	683	55	559
Harrow. Disk	J. F. Packer	449,132	Mar. 31	3014	762	54	1727
Harrow. Disk	C. S. Ruef	445,787	Feb. 3	447	112	54	599
Harrow. Disk	G. Wilkening	448,396	Mar. 17	1856	467	54	1489
Harrow. Disk	C. Williams	462,289	Nov. 3	111	27	57	572
Harrow-frame	F. J. Henry and F. A. Taylor	454,474	June 23	1946	507	55	1543
Harrow. Hand	H. D. McConn	462,726	Nov. 10	802	209	57	714
Harrow leveling attachment	L. D. Corser	448,502	Mar. 17	2015	504	54	1519
Harrow or cultivator	P. Blaker	454,324	June 16	1711	446	55	1491
Harrow or cultivator. Side	J. C. Thompson and S. A. Parker	449,835	Apr. 7	297	78	55	58
Harrow or cultivator. Spring-tooth	P. Blaker	453,058	May 26	2610	660	55	1095
Harrow. Revolving	S. Sheets	454,188	June 16	1511	397	55	1452
Harrow. Rotary	I. E. Stump	449,833	Apr. 7	295	77	55	58
Harrow, seeder, and mower. Combined	H. V. Conway	445,543	Feb. 3	22	6	54	515
Harrow spring-tooth	W. M. Brinkerhoff	447,936	Mar. 10	1094	274	54	1332
Harrow. Spring-tooth	C. La Dow	455,260	June 30	3286	832	55	1803
Harrow. Spring-tooth	H. V. Miller	444,248	Jan. 6	431	108	54	85
Harrow. Spring-tooth	F. Van Patten	445,324	Jan. 27	2149	556	54	445
Harrow-teeth holder. Spring	A. B. Farquhar and H. W. Eisenhart	465,173	Dec. 15	1861	472	57	1507
Harrow. Wheel	J. R. Braden and C. H. Elliott	454,843	June 30	2546	655	55	1661
Harrow. Wheel	B. A. Wash	456,261	July 21	1519	403	56	307
Harrow. Pulverizer attachment for	J. P. L'Homedieu	462,960	Nov. 10	1211	316	57	794
Harvester	N. L. Darling	458,335	Aug. 25	2307	563	56	992
Harvester	A. F. Hart	451,669	May 5	345	85	55	644
Harvester	J. Hornsby, J. Innocent, and J. H. Smith	460,139	Sept. 29	2521	627	56	1580
Harvester	J. Macphail	451,943	May 12	773	195	55	732
Harvester	J. and W. Paterson	454,225	June 16	1563	411	55	1462
Harvester	J. F. Steward	446,541	Feb. 17	1705	418	54	863
Harvester and chopper. Ensilage	W. J. Conroy	465,127	Dec. 15	1790	451	57	1494
Harvester and husker. Corn	J. P. Dunn	448,417	Mar. 17	1888	474	54	1496
Harvester and weed-cutter. Bean	W. Carver	447,602	Mar. 3	540	133	54	1219
Harvester attachment	J. K. Beehler	450,443	Apr. 14	1216	397	55	238
Harvester. Bean	F. W. Miller	452,440	May 19	1618	401	55	897
Harvester-binder	L. M. Jones and J. Wedlake	450,024	Apr. 7	557	138	55	108
Harvester-conveyer-belts. Machine for manufacturing	J. F. Kingwill	452,972	May 26	2471	625	55	1068
Harvester conveyer. Grain	W. R. Mercer	457,827	Aug. 18	1467	382	56	826
Harvester. Corn	N. C. Bader	462,230	Nov. 3	6	2	57	554
Harvester. Corn	J. Bardill	459,987	Sept. 22	2275	571	56	1526
Harvester. Corn	D. W. Blaine	444,723	Jan. 13	1151	297	54	235
Harvester. Corn	S. Brooke	447,296	Mar. 3	18	6	54	1122
Harvester. Corn	M. Burns	457,252	Aug. 4	510	134	56	628
Harvester. Corn	A. W. Butt	445,367	Jan. 27	2210	573	54	457
Harvester. Corn	C. Christian	460,197	Sept. 29	2600	649	56	1596
Harvester. Corn	J. Dain, Jr	458,709	Sept. 1	249	59	56	1113
Harvester. Corn	J. C. Entekin, T. Boggs, and J. P. Gartner	460,855	Oct. 6	489	125	57	97
Harvester. Corn	N. Fink	463,033	Nov. 10	1284	333	57	809
Harvester. Corn	D. S. Fisher	456,511	July 21	1923	508	56	383
Harvester. Corn	I. T. Grabam	451,378	Apr. 28	2696	669	55	547
Harvester. Corn	W. W. Hall	444,157	Jan. 6	294	71	54	60
Harvester. Corn	W. W. Harvey	458,365	Aug. 25	2356	575	56	1001
Harvester. Corn	B. Hudson	457,424	Aug. 11	830	215	56	695
Harvester. Corn	T. B. Jones	453,907	June 9	1110	290	55	1367

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Harvester. Corn.....	S. C. Kenaga.....	447,465	Mar. 3	324	{ 81 82 83	54	1179
Harvester. Corn.....	J. Keys.....	449,652	Mar. 31	3886	972	54	1888
Harvester. Corn.....	O. King, T. Leach, and J. Larson.....	452,104	May 12	1065	{ 269 270	55	783
Harvester. Corn.....	A. V. Kiser.....	459,006	Sept. 8	711	{ 174 175	56	1212
Harvester. Corn.....	M. K. Lewis.....	464,573	Dec. 8	867	{ 213 214	57	1309
Harvester. Corn.....	A. A. Lundy.....	450,371	Apr. 14	1107	271	55	218
Harvester. Corn.....	A. S. McClure and C. E. Fri.....	456,657	July 28	2171	575	56	440
Harvester. Corn.....	G. Meader.....	461,246	Oct. 13	1092	{ 277 278	57	218
Harvester. Corn.....	M. Moore.....	466,018	Dec. 29	3240	826	57	1791
Harvester. Corn.....	W. Orcutt.....	456,055	July 14	1199	315	56	236
Harvester. Corn.....	C. Schryver.....	452,805	May 26	2197	{ 551 552	55	1016
Harvester. Corn.....	B. Slusser.....	449,969	Apr. 7	479	120	55	93
Harvester. Corn.....	F. J. Stinchcomb.....	460,836	Oct. 6	463	117	57	92
Harvester. Corn.....	T. C. St. John.....	447,624	Mar. 3	577	{ 142 143	54	1226
Harvester. Corn.....	T. C. St. John.....	460,315	Sept. 29	2786	694	56	1632
Harvester. Corn.....	W. E. Treadwell and C. W. Black.....	448,697	Mar. 24	2337	586	54	1589
Harvester. Corn.....	J. D. Van Buren.....	463,975	Nov. 24	2799	725	57	1115
Harvester. Corn.....	A. Wickey.....	461,539	Oct. 20	1631	398	57	327
Harvester. Corn.....	E. M. Wilcox.....	456,229	July 21	1468	{ 390 391	56	297
Harvester. Corn.....	J. Wise.....	454,102	June 16	1383	362	55	1427
Harvester. Corn.....	E. E. Witter.....	458,085	Aug. 18	1886	{ 491 492 493	56	906
Harvester. Corn.....	G. F. S. Zimmerman.....	459,517	Sept. 15	1533	383	56	1379
Harvester. Cornstalk.....	A. Harold and J. J. Mails.....	452,786	May 26	2172	543	55	1011
Harvester. Cornstalk.....	P. S. Lundgren.....	448,058	Mar. 10	1291	330	54	1370
Harvester. Cotton.....	J. A. House.....	450,584	Apr. 14	1405	{ 346 347	55	277
Harvester. Cotton.....	J. A. House.....	464,742	Dec. 8	1143	{ 233 234	57	1361
Harvester. Cotton.....	G. N. Todd.....	453,351	June 2	268	71, 72	55	1198
Harvester. Cotton.....	G. N. Todd.....	457,329	Aug. 4	648	{ 169 170	56	653
Harvester. Cotton.....	F. Van Dorn.....	444,801	Jan. 13	1281	{ 331 332	54	258
Harvester cutter-bar.....	J. L. Riely.....	453,705	June 9	840	217	55	1314
Harvester cutting apparatus.....	M. Wilson.....	448,567	Mar. 17	2111	529	54	1538
Harvester. Grain-binding.....	L. Miller.....	451,975	May 12	818	{ 208 209	55	741
Harvester. Low-binding.....	J. C. and G. A. Cunningham.....	453,077	May 26	2646	{ 667 668	55	1102
Harvester. Pea.....	D. L. Barnes.....	451,359	Apr. 28	2674	662	55	543
Harvester pitman-connection.....	J. Baum.....	447,930	Mar. 10	1082	271	54	1330
Harvester. Potato.....	J. N. Cocker.....	463,098	Nov. 10	1386	358	57	829
Harvester. Potato.....	D. and J. Newberry.....	455,599	July 7	489	{ 127 128	56	94
Harvester raising and lowering device.....	C. A. A. Rand.....	461,249	Oct. 13	1096	279	57	219
Harvester-reel.....	W. Fonger.....	452,369	May 19	1500	{ 371 372	55	875
Harvester-reel.....	C. D. Towne.....	447,481	Mar. 3	358	89	54	1185
Harvester-reel driver.....	J. W. Cahow.....	461,813	Oct. 27	2076	512	57	419
Harvester. Self-binding grain.....	R. H. Dixon and J. F. Steward.....	452,836	May 26	2240	{ 562 563	55	1024
Harvester. Stalk-fodder.....	H. F. Longworth.....	450,244	Apr. 14	904	224	55	180
Harvester. Straw-binding.....	C. E. Donnellan.....	462,306	Nov. 3	141	{ 35 36 37	57	577
Harvester. Traveling.....	G. W. Haines.....	444,936	Jan. 20	1553	399	54	318
Harvester-wheel.....	G. H. Carver.....	463,739	Nov. 24	2429	637	57	1045
Harvester-wheel.....	G. G. Hunt.....	462,709	Nov. 10	774	202	57	709
Harvesters and mechanism for operating the same. Picker-stem for cotton.....	G. N. Todd.....	456,173	July 21	1369	364	56	279
Harvesters. Automatic cord-gripper for self-binding.....	A. B. Lang.....	458,467	Aug. 25	2513	611	56	1030
Harvesters. Carrying-belt for.....	G. J. Dryden.....	463,110	Nov. 10	1417	366	57	836
Harvesters. Chain-tightener for.....	J. F. Steward.....	459,114	Sept. 8	898	215	56	1248
Harvesters. Cutting apparatus for.....	J. Skinner.....	464,526	Dec. 8	806	197	57	1298
Harvesters. Finger-beam attachment for.....	H. P. Galligan.....	460,724	Oct. 6	310	76	57	61
Harvesters. Frictional clutch for.....	H. C. Stone.....	463,752	Nov. 24	2448	641	57	1049
Harvesters. Sheaf carrier and dumper for.....	G. H. Howe.....	456,825	July 28	2449	645	56	491
Harvesters. Sheaf-carrier for self-binding.....	A. Stevens.....	452,856	May 26	2274	{ 570 571	55	1030
Harvesters. Swathing attachment for.....	F. Childs.....	451,678	May 5	358	88	55	647
Harvesters. Swathing attachment for.....	W. H. Sharpsteen.....	449,919	Apr. 7	413	103	55	81
Harvesters. Tension device for self-binding.....	M. S. Brown.....	450,555	Apr. 14	1366	337	55	269
Harvesting and husking corn. Machine for.....	C. L. Brown and E. S. Stafford.....	465,571	Dec. 22	2510	641	57	1641
Harvesting-machine.....	A. Goodyear.....	453,471	June 2	466	120	55	1256
Harvesting-machine.....	A. Rank, Sr.....	446,292	Feb. 10	1305	{ 319 320 321	54	770
Harvesting machine. Corn.....	C. K. Cordrey.....	457,760	Aug. 11	1362	352	56	800
Harvesting machine. Cotton.....	E. L. Baker.....	459,621	Sept. 15	1707	427	56	1410
Harvesting machine. Cotton.....	E. L. Baker.....	459,623	Sept. 15	1715	{ 430 431	56	1412
Harvesting machine. Cotton.....	E. L. Baker and R. Emerson.....	459,622	Sept. 15	1710	{ 428 429	56	1411

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr & C	Vol.	Page.
Harvesting machinery. Cotton.....	S. B. Patteson	465,879	Dec. 29	2995	{ 764 765 }	57	1744
Hash. Making	C. O. Newton	464,517	Dec. 8	790	.....	57	1295
Hasp and staple	C. Hancock	446,173	Feb. 10	1098	269	54	730
Hasp-lock	J. R. Ayres	455,149	June 30	3117	791	55	1770
Hasp-lock	C. B. Lampkin	464,373	Dec. 1	574	140	57	1243
Hasp-lock	W. R. Morse	446,187	Feb. 10	1119	274	54	733
Hasp-lock	W. H. Pickett	459,978	Sept. 22	3264	568	56	1524
Hasp-lock	W. W. Pursell	447,698	Mar. 3	674	168	54	1246
Hasp-lock. Seal	A. Clark	447,664	Mar. 3	624	155	54	1236
Hat and clothes rack. Folding	G. F. Barnes	444,933	Jan. 20	1549	397	54	318
Hat and coat hook	C. H. Thurston	454,305	June 16	1681	449	55	1486
Hat-band. Magnetized	F. H. Brown	459,942	Sept. 22	2216	557	56	1516
Hat-blocking and brim-pressing machine	W. H. Pittilla	462,585	Nov. 3	576	{ 140 141 }	57	662
Hat-blocking machine	J. Marshall	453,198	June 2	27	8, 9	55	1154
Hat-blocking machine	W. H. Pittilla	450,422	Apr. 14	1188	289	55	233
Hat-bodies. Cone for forming	B. J. Brown, Jr.	464,421	Dec. 1	638	157	57	1255
Hat-bodies. Cone for forming	B. J. Brown, Jr.	464,422	Dec. 1	638	157	57	1256
Hat-box indicator	A. B. Brunell	464,006	Dec. 1	7	2	57	1138
Hat-brims. Apparatus for heating	J. Moores	450,889	Apr. 21	1933	474	55	390
Hat-brims. Machine for trimming the curled edges of	J. Fitz, G., J. G., and M. O. Rehffuss	454,565	June 23	2085	538	55	1569
Hat conformator and stretcher	A. Donzer	456,266	July 21	1559	412	56	315
Hat conformator and stretcher. Combined	H. Lyons	447,751	Mar. 3	760	189	54	1262
Hat-dipping apparatus	S. T. Newman	456,706	July 28	2248	{ 595 596 }	56	454
Hat-fastener	W. H. Thompson	450,538	Apr. 14	1344	330	55	265
Hat-hanger	W. V. Bléha	458,783	Sept. 1	354	86	56	1133
Hat holder	G. N. Cooper	447,278	Feb. 24	2934	729	54	1108
Hat holder	L. C. Godwin	459,281	Sept. 8	1154	281	56	1297
Hat hook or rest	T. Murrin	451,568	May 5	185	45	55	615
Hat-making machines. Expansible cone for	F. M. Starr	446,366	Feb. 10	1464	360	54	893
Hat or cap	P. Goldmann	464,706	Dec. 8	1226	305	57	1377
Hat-packing ring	F. P. Ferry	444,343	Jan. 6	563	145	54	112
Hat-pin. Lady's	L. Barnes	454,702	June 23	2317	595	55	1612
Hat-pouncing machine	S. T. Newman and E. C. Oakley	447,787	Mar. 10	835	209	54	1283
Hat-pressing machine	M. Mellitzer	460,395	Sept. 29	2908	726	56	1654
Hat-rack. Wall	H. W. Matthies	457,163	Aug. 4	352	90	56	600
Hat-rounding machine	S. T. Newman	457,057	Aug. 4	183	{ 45 46 47 }	56	568
Hat-sizing machine	W. Simmonds and C. Linegar	463,339	Nov. 17	1781	467	57	912
Hat-stiffening machine	F. J. Murphy	465,721	Dec. 22	2732	697	57	1684
Hat sweat-band	T. Webb	456,785	July 28	2286	628	56	179
Hat-trimming machine	W. H. Barnum and E. C. Oakley	450,986	Apr. 21	2085	{ 514 515 }	55	420
Hat-trimming machine	S. T. Newman	449,911	Apr. 7	402	{ 100 101 }	55	78
Hats. Device for displaying	R. R. Ferry	461,827	Oct. 27	2098	517	57	423
Hats. Machine for pressing the brims and shaping the crowns of	F. D. Fry	465,129	Dec. 15	1793	{ 453 454 }	57	1495
Hats. Machine for punching holes in	J. Eaton	464,117	Dec. 1	164	41	57	1168
Hats. &c. Safety locking-guard for	W. H. Thompson	452,682	May 19	1996	500	55	968
Hatch-door	J. J. McBride	451,947	May 12	777	197	55	733
Hatch-door	J. J. McBride	462,269	Nov. 3	76	18	57	566
Hatch-doors, &c. Fusible support for	C. C. Hine	449,414	Mar. 31	3502	881	54	1817
Hatchway-door	K. Gold	457,026	Aug. 4	142	35	56	561
Hatchway-door-operating device	D. Fraser	464,721	Dec. 8	1113	276	57	1356
Hatchway-door-operating device	R. Hallenstein	460,638	Oct. 6	170	43	57	35
Hatchway-doors. Device for operating	R. Hallenstein	464,564	Dec. 8	857	211	57	1308
Hatchway-doors. Device for operating	C. K. Rogers	456,063	July 14	1210	{ 318 319 }	56	238
Hatchway-doors in case of fire. Means for releasing	L. C. Tufts	461,857	Oct. 27	2136	527	57	431
Hatchway. Elevator	J. J. McBride	447,196	Feb. 24	2793	690	54	1079
Hatchway-operating mechanism. Elevator	D. B. Clem	449,361	Mar. 31	3405	856	54	1796
Hatchways. Device for operating doors to	R. Hallenstein	465,850	Dec. 29	2941	752	57	1734
Haulage-grip. Endless cable	T. J. Waters	459,065	Sept. 8	843	204	56	1235
Haulage-machine. Gravity	F. A. Sell and W. O'Connor	445,088	Jan. 20	1780	459	54	363
Hawser-guide	F. Meinzer	458,855	Sept. 1	475	114	56	1156
Hay-cap	D. S. Satterlee and H. Kemmerer	463,077	Nov. 10	1358	351	57	824
Hay-carrier	W. E. Fullmer	454,860	June 30	2569	661	55	1655
Hay-carrier	J. G. Stowe	463,876	Nov. 24	2646	{ 689 690 }	57	1085
Hay-carrier track	H. L. Ferris	460,959	Oct. 13	651	168	57	134
Hay-carrier track	P. A. Myers	465,945	Dec. 29	3096	793	57	1764
Hay-elevator	J. and V. L. Ney	465,195	Dec. 15	1892	479	57	1513
Hay elevator and carrier	B. R. Sockman	457,856	Aug. 18	1521	396	56	837
Hay-fork	J. Anderson	459,263	Sept. 8	1121	273	56	1291
Hay-fork	N. Isackson	464,363	Dec. 1	561	{ 137 138 }	57	1241
Hay-fork	H. H. Wright	454,103	June 16	1385	362	55	1427
Hay-fork. Horse	W. Loudon	465,380	Dec. 15	2199	563	57	1571
Hay fork or grapple	C. Lardner	456,624	July 28	2118	560	56	429
Hay gatherer and stacker	A. Ryan	453,665	June 9	767	198	55	1301
Hay-knife	E. Biro	463,806	Nov. 24	2524	658	57	1063
Hay-loader	M. K. Barron	465,052	Dec. 15	1649	420	57	1468
Hay-loader	M. Beck	448,006	Mar. 10	1211	{ 308 309 }	54	1355
Hay-loader	F. Earnheart	451,467	May 5	24	9	55	585
Hay-loader	J. W. Hunter and T. N. Lakin	461,168	Oct. 13	947	{ 244 245 }	57	188
Hay-loader	C. C. Jewett	461,340	Oct. 13	1231	313	57	246
Hay-loader	A. and A. Lasack	453,492	June 2	498	128	55	1242
Hay-loader	A. Puntney and E. C. Sooy	456,237	July 21	1482	{ 394 395 }	56	300

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Hay-press.....	G. W. Arnold.....	465,772	Dec. 22	2813	722	57	1700
Hay-press.....	B. G. Cox.....	457,705	Aug. 11	1262	326	56	778
Hay-press.....	F. Donald.....	444,667	Jan. 13	1074	278	54	220
Hay-press.....	J. B. Foresman.....	445,986	Feb. 10	782	190	54	675
Hay-press.....	J. H. Gardner.....	463,662	Nov. 24	2310	606		
Hay-press.....	R. A. Grant.....	452,604	May 19	1876	472	55	945
Hay-press.....	C. D. McNeill.....	456,633	July 28	2129	563	56	431
Hay-press.....	O. B. Pancost.....	461,768	Oct. 20	1992	492	57	395
Hay-press.....	E. M. Turner.....	462,180	Oct. 27	2641	660	57	528
Hay-rack.....	E. P. Dicken.....	464,632	Dec. 8	957	236	57	1328
Hay-rack.....	G. A. Gibbs.....	457,876	Aug. 18	1557	404	56	843
Hay-rack.....	S. H. Petro and M. Darnell.....	450,977	Apr. 21	2074	512	55	418
Hay-rack.....	J. C. Sellers.....	450,109	Apr. 7	682	173	55	133
Hay-rack.....	M. Whiles.....	461,947	Oct. 27	2291	567	57	462
Hay-rack.....	C. Zengler.....	455,895	July 14	963	252	56	193
Hay-rack. Folding.....	E. White.....	461,227	Oct. 13	1064	269	57	212
Hay-rake.....	N. H. Miller.....	461,765	Oct. 20	1989	491	57	395
Hay-rake.....	D. F. Oliver.....	455,004	June 30	2863	728	55	1721
Hay-rake.....	J. M. Paronto.....	448,926	Mar. 24	2690	678	54	1656
Hay-rake.....	W. B. Sharp.....	448,145	Mar. 10	1411	361	54	1395
Hay-rake.....	A. L. Slager and G. E. Linn.....	446,157	Feb. 10	1062	261	54	725
Hay-rake.....	J. H. Soehren.....	463,461	Nov. 17	1969	514	57	950
Hay rake and loader.....	V. Cole and C. W. Neikirk.....	449,462	Mar. 31	3582	902	54	1831
Hay rake and loader.....	A. B. Livingston.....	449,483	Mar. 31	3614	910	54	1837
Hay rake and loader. Combined.....	D. C. Chaddock, C. E. Sutton, and A. C. McCullough.....	445,541	Feb. 3	19	5	54	514
Hay rake and tedder.....	F. M. Quick.....	456,845	July 28	2488	654	56	497
Hay rake and tedder. Combined.....	M. Rew.....	452,319	May 12	1413	350	55	849
Hay-rake. Horse.....	D. G. Auchey.....	463,299	Nov. 17	1714	417		
Hay-rake. Horse.....	A. H. Colby. (Reissue).....	11,182	July 23	2636	690	56	525
Hay-rake. Horse.....	F. Fowler.....	453,694	June 9	816	208		
Hay-rake. Horse.....	D. D. Funk and J. P. White.....	448,332	Mar. 17	1756	444	54	1471
Hay-rake. Horse.....	T. Miltenberger.....	457,091	Aug. 4	249	64, 65	56	581
Hay-rake. Horse.....	G. W. Staples.....	453,949	June 9	1166	304	55	1379
Hay-rake. Horse.....	T. J. Thorp.....	446,608	Feb. 17	1940	484		
Hay-rake. Horse.....	H. G. Walker.....	459,617	Sept. 15	1698	426	56	1409
Hay-rake. Horse.....	G. Wiard.....	457,485	Aug. 11	936	238	56	714
Hay-rake. Horse.....	G. Wiard.....	460,612	Oct. 6	102	28	57	22
Hay rake, loader, unloader, and stacker. Combined.....	H. A. Burgess.....	463,937	Nov. 24	2743	711	57	1104
Hay raking and elevating machine.....	M. M. Sornborger.....	461,374	Oct. 13	1300	328	57	259
Hay-ricker.....	C. W. Ham.....	451,045	Apr. 28	2178	538		
Hay shield and manger. Adjustable.....	J. W. Coffin and W. Shoemaker.....	445,162	Jan. 27	1910	493	54	397
Hay-sling.....	J. Law.....	464,975	Dec. 15	1497	376	57	1441
Hay-sling.....	W. Loudon.....	444,546	Jan. 13	892	232	54	186
Hay-stacker.....	P. Bernard.....	455,936	July 14	1026	268	56	204
Hay-stacker.....	O. H. Buck.....	465,157	Dec. 15	1834	466	57	1502
Hay-stacker.....	J. Holman.....	455,252	June 30	3277	830	55	1801
Hay-stacker.....	J. H. Junkins.....	449,540	Mar. 31	3693	928	54	1852
Hay-stacker.....	W. Klinker.....	451,766	May 5	498	123	55	673
Hay-stacker.....	M. Machin.....	447,250	Feb. 24	2886	716	54	1098
Hay-stacker.....	H. C. Selle.....	457,134	Aug. 4	304	80	56	591
Hay-tedder.....	C. H. Bowman.....	446,728	Feb. 17	1927	496	54	918
Hay-tedder.....	G. Crews.....	444,423	Jan. 13	696	181	54	145
Hay-tedder.....	E. D. and O. B. Reynolds.....	449,948	Apr. 7	450	113	55	88
Head-covering.....	S. Tuch.....	446,762	Feb. 17	2039	508	51	929
Head-coverings. Note-plate for.....	H. Schneider.....	448,266	Mar. 17	1624	414	54	1445
Head-gate lock.....	L. Roberts.....	453,706	June 9	842	217	55	1314
Head-rest for chairs.....	I. D. Crispell.....	444,989	Jan. 20	1637	420	54	335
Headed bolt or screw.....	C. D. Rogers.....	461,621	Oct. 20	1758	433	57	350
Heading-dressing machine.....	W. H. Curnayn.....	445,619	Feb. 3	158	42	54	542
Hearth. Adjustable.....	J. H. Bennett.....	454,703	June 23	2318	596	55	1612
Hearth, ash-pan, and fender. Combined.....	E. C. Stewart.....	460,042	Sept. 22	2361	590	56	1542
Hearth-cabinet.....	S. G. Smith.....	444,076	Jan. 6	153	38	54	33
Hearth-furnace for treating zinc ores.....	W. West.....	445,124	Jan. 20	1837	476	54	374
Heat-engine. Internal combustion.....	J. Atkinson.....	454,936	June 30	2730	696	55	1695
Heat-generator. Portable.....	A. White.....	463,559	Nov. 17	2128	562		
Heat into mechanical energy. Transforming.....	H. Mehner.....	456,831	July 28	2456	647	56	493
Heat-regulating apparatus.....	G. L. Shorey.....	446,212	Feb. 10	1161	284		
Heat-regulating apparatus.....	G. L. Shorey.....	460,996	Oct. 13	706	182	57	144
Heat-regulating systems. Switch-board for.....	C. W. Brieder.....	445,970	Feb. 10	743	182		
Heater:							
See Buggy-heater.	Hydrocarbon-oil heater.						
Car-heater.	Milk-heater.						
Curling-iron heater.	Sad-iron heater.						
Electric heater.	Sand and gravel heater.						
Electric-current heater.	Steam and hot-air heater.						
Electrical heater.	Steam or hot-water heater.						
Feed-water heater.	Submerged heater.						
Fire-place heater.	Tire-heater.						
Gas-heater.	Vault-heater.						
Hot-air, steam, and hot-water heater.	Water-heater.						
Hot-water heater.	Well-heater.						
Hot-water and steam heater.	Wheat-heater.						
Heater.....	J. K. Brown.....	445,010	Jan. 20	1667	428	54	342

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Heater	J. G. Coryell	463,827	Nov. 24	2554	{ 665 666 }	57	1069
Heater	G. M. Edwards	466,092	Dec. 29	3356	857	57	1814
Heater	W. S. Essick	458,385	Aug. 25	2391	583	56	1007
Heater	T. Farmer, Jr.	446,673	Feb. 17	1900	471	54	901
Heater	C. L. Haight. (Reissue)	11,190	Sept. 15	1885	{ 474 475 }	56	1445
Heater	G. W. Harris	461,017	Oct. 13	737	190	57	150
Heater	H. Hyde	451,245	Apr. 28	2505	618	55	510
Heater	F. C. Peteler	446,008	Feb. 10	816	197	54	679
Heater	W. H. Randall	460,659	Oct. 6	197	51	57	41
Heater	J. Shackleton	456,004	July 14	1129	296	56	223
Heater or radiator	A. J. Thompson	462,337	Nov. 3	184	47	57	586
Heaters. Feeder for	W. Jones	463,902	Nov. 24	2680	698	57	1092
Heating and cooking apparatus. Portable safety	J. House	454,537	June 23	2049	530	55	1562
Heating and lighting device	L. T. Wilcox	458,669	Sept. 1	192	45	56	1102
Heating and lighting system	R. M. Hunter	462,926	Nov. 10	1140	{ 294 295 }	57	779
Heating and ventilating apparatus and system	J. A. Skilton	445,762	Feb. 3	405	103	54	593
Heating and ventilating apparatus and system	J. A. Skilton	445,763	Feb. 3	409	703	54	593
Heating and ventilating apparatus and system	J. A. Skilton	460,684	Oct. 6	242	60, 61	57	49
Heating and ventilating buildings	D. Andrews	445,486	Jan. 27	2382	{ 619 620 }	54	490
Heating and ventilating rooms. Apparatus for	W. Tarp	464,698	Dec. 8	1073	266	57	1348
Heating and ventilating the walls of buildings	W. Benner	446,848	Feb. 24	2178	512	54	966
Heating apparatus	N. E. Austin	449,277	Mar. 31	3240	{ 819 820 }	54	1769
Heating apparatus	W. P. Brown	452,831	May 26	2234	561	55	1023
Heating apparatus	H. H. Daw	463,186	Nov. 17	1539	402	57	866
Heating apparatus	C. W. Emerson	455,542	July 7	395	103	56	77
Heating apparatus	C. A. Sawin	465,210	Dec. 15	1912	{ 485 486 }	57	1517
Heating apparatus	J. W. Smith	458,197	Aug. 25	2061	534	56	946
Heating apparatus. Burner for	E. H. Allam	452,352	May 19	1479	367	55	871
Heating apparatus. Device for automatically regulating combustion in hot-water and hot-air	J. C. F. Atsatt. (Reissue)	11,139	Jan. 13	1293	335	54	261
Heating apparatus. Electric	M. W. Dewey	448,879	Mar. 24	2626	660	54	1643
Heating apparatus. Electric	M. W. Dewey	449,404	Mar. 31	3479	876	54	1811
Heating apparatus. Electric	M. W. Dewey	464,247	Dec. 1	381	92	57	1506
Heating apparatus. Electro	C. E. Carpenter	447,023	Feb. 24	2462	618	54	1021
Heating apparatus. Hot-water	J. M. Thayer	456,328	July 21	1624	430	56	327
Heating apparatus. Steam	B. Cavanagh	448,932	Mar. 24	2698	680	54	1658
Heating apparatus. Steam	C. Edgerton	445,396	Jan. 27	2251	584	54	465
Heating apparatus. Steam	E. H. Hall	451,929	May 12	753	190	55	728
Heating apparatus. Steam	W. E. Hall	454,964	June 30	2772	707	55	1703
Heating apparatus. Steam	R. W. King	447,330	Mar. 3	77	21	54	1132
Heating apparatus. Steam	J. F. McElroy	454,285	June 16	1653	{ 433 434 }	55	1480
Heating-boiler	L. Pardee	460,158	Sept. 29	2545	634	56	1585
Heating buildings. System for	C. D. Howard	463,789	Nov. 24	2496	651	57	1057
Heating by electricity. Apparatus for	R. Kennedy	457,561	Aug. 11	1045	268	56	737
Heating by electricity. Apparatus for	C. Zipernowsky	452,056	May 12	975	248	55	769
Heating by gas. Apparatus for	W. Ponis	449,757	Apr. 7	176	44	55	36
Heating by gas or combustible vapor. Device for	A. Seigle-Gonjon	448,460	Mar. 17	1951	491	54	1508
Heating, cooling, and ventilating apparatus	T. R. Timby	465,298	Dec. 15	2056	525	57	1544
Heating device	H. Ingersoll	447,115	Feb. 24	2631	653	54	1050
Heating devices. Vacuum-core for electrical	H. R. Butterfield	447,127	Feb. 24	2645	656	54	1053
Heating-furnace	J. Gibbons	458,324	Aug. 25	2285	559	56	987
Heating-furnace	J. N. Hersh	460,811	Oct. 6	431	108	57	86
Heating. Method of and apparatus for producing } from coal smokeless flame for	W. A. Koneman	461,343	Oct. 13	1235	{ 314 315 }	57	247
Heating, puddling, or boiler furnace	J. James	454,359	June 16	1764	{ 458 459 }	55	1500
Heating purposes. Hot-water circulation apparatus for	R. Bottsford	452,504	May 19	1723	434	55	914
Heating system. Air	C. S. and E. Hood	465,562	Dec. 22	2498	638	57	1639
Heating. System of steam	W. P. Skiffington	464,946	Dec. 8	1437	{ 361 362 }	57	1420
Heating system. Steam	W. E. Hall	454,965	June 30	2774	707	55	1703
Heating-tool. Electric	G. W. Blanchard	466,266	Dec. 29	3624	927	57	1865
Heating with fluid fuel. Apparatus for	W. A. Koneman	464,695	Dec. 8	1065	265	57	1347
Hedge	I. L. Landis	448,527	Mar. 17	2051	513	54	1527
Hedge-trimmer	R. H. Elliott	454,337	June 16	1729	450	55	1494
Heel-attaching machine	N. W. Bingham	460,175	Sept. 29	2570	641	56	1590
Heel-blank	F. F. Raymond, 2d.	465,029	Dec. 15	1615	411	57	1463
Heel-blanks. Machine for assorting	W. E. Cummings	461,924	Oct. 27	2259	559	57	455
Heel-burnisher	A. L. F. Mitchell	452,032	May 12	919	{ 234 235 }	55	759
Heel-burnishing machine	A. B. Fowler and G. E. Warren	452,345	May 12	1462	362	55	858
Heel-burnishing machine	A. L. F. Mitchell	452,033	May 12	922	236	55	760
Heel-burnishing machine	E. P. Richardson	455,871	July 14	927	243	56	187
Heel-burnishing machine	E. P. Richardson	466,258	Dec. 29	3612	924	57	1863
Heel-burnishing machine	W. F. Sampson	444,021	Jan. 6	56	16	54	14
Heel-burnishing machine	W. F. Sampson	444,388	Jan. 6	631	{ 164 165 }	54	124
Heel-burnishing machine	W. F. Sampson	456,066	July 14	1213	319	56	239
Heel-cutting machine	W. E. Cummings	451,917	May 12	737	185	55	725
Heel-lifts. Machine for skiving	J. R. Scott	462,594	Nov. 3	588	145	57	664
Heel-machine	J. A. Hall	447,317	Mar. 3	56	15	54	1128
Heel-making machine	W. J. Fahnley and E. H. Taylor	446,334	Feb. 10	1375	{ 335 336 }	54	785
Heel nailing and trimming machine	C. W. Glidden and A. D. Elliott	457,462	Aug. 11	891	230	56	706
Heel-nailing machine	G. H. Cogswell	460,560	Oct. 6	25	6	57	7
Heel-nailing machine	W. J. Fahuley	454,726	June 23	2351	604	55	1619

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Heel-nailing machine.....	J. H. Pope.....	446,885	Feb. 24	2246	{ 559 560	54	978
Heel-nailing machine.....	F. F. Raymond, 2d.....	461,448	Oct. 20	1421	{ 358 359	57	289
Heel-nailing machine.....	F. F. Raymond, 2d.....	464,255	Dec. 1	395	{ 94 388 389 390	57	1209
Heel-nailing machine.....	F. F. Raymond, 2d.....	464,991	Dec. 15	1541	{ 391 392 393 394	57	1449
Heel plate and brace.....	E. Siegrist.....	452,853	May 26	2270	569	55	1030
Heel-protector.....	E. F. Ayres and T. H. Foster.....	457,394	Aug. 11	789	202	56	687
Heel-seat-beating machine.....	W. Wolfe.....	460,737	Oct. 6	327	80	57	65
Heel-seat-forming and edge-setting machine.....	M. L. Wright.....	446,399	Feb. 10	1469	361	54	804
Heel-seat trimmer.....	A. McDowell.....	455,884	July 14	950	248	56	191
Heel shaping or compressing machine.....	C. W. Glidden.....	454,428	June 16	1880	491	55	1522
Heel. Spring.....	J. W. Beach.....	458,010	Aug. 18	1784	466	56	885
Heel-stiffener machine.....	L. Coté.....	447,944	Mar. 10	1103	277	54	1334
Heel-stiffener machine.....	A. H. Thompson.....	457,412	Aug. 11	814	209	56	692
Heel-trimming machine.....	C. E. Phillips.....	445,233	Jan. 27	2018	520	54	418
Heel-trimming machine.....	S. Pope.....	465,290	Dec. 15	2042	522	57	1542
Heel-trimming machine.....	H. W. Winter.....	447,744	Mar. 3	750	188	54	1280
Heel-trimming machine.....	H. W. Winter.....	448,310	Mar. 17	1714	{ 434 435	54	1463
Heel-trimming machines. Rest for.....	T. Pierce.....	458,594	Sept. 1	71	16	56	1080
Heel-trimming tool.....	O. L. Noble.....	445,229	Jan. 27	2015	519	54	417
Heels, &c. Device for burnishing or finishing.....	W. F. Sampson.....	462,951	Nov. 10	1170	303	57	785
Heeling-machine.....	C. W. Glidden and A. D. Elliott.....	446,383	Feb. 10	1439	{ 354 355 413 414	54	798
Heeling-machine.....	H. C. Hart.....	450,755	Apr. 21	1708	{ 413 414	55	349
Hemp-brake.....	A. Angell.....	448,493	Mar. 17	2006	502	54	1518
Hemp-brake.....	J. J. Hawkins.....	465,433	Dec. 15	2273	583	57	1587
Hemp brake and cleaner.....	J. D. and J. H. Shely.....	451,438	Apr. 28	2794	691	55	566
Hemp breaking and cleaning machine.....	J. Heaney.....	458,318	Aug. 25	2274	556	56	985
Hemp-cleaner.....	O. Sheehan.....	453,945	June 9	1162	303	55	1378
Hemp-cleaning machine.....	W. H. Muggoridge.....	464,890	Dec. 8	1232	306	57	1379
Hermetically-sealed dual receptacle.....	J. B. Pfeiffer, Jr., and G. H. Knittel.....	455,516	July 7	341	88	56	68
Hides. Bating.....	N. Wilson.....	444,771	Jan. 13	1243	.....	54	251
Hides or skins. Machine for treating.....	W. Evans.....	462,838	Nov. 10	986	255	57	751
Hides. Removing lime from.....	C. W. Cooper.....	461,010	Oct. 13	725	187	57	148
Hides. Removing lime from.....	W. Dieterle.....	450,930	Apr. 21	1983	.....	55	401
Hides. Treating.....	G. C. Walter.....	455,674	July 7	604	.....	56	117
High and low water alarm.....	C. A. Hatch.....	458,787	Sept. 1	359	87	56	1134
Hinge.....	J. K. Clark.....	462,204	Oct. 27	2684	675	57	536
Hinge.....	J. K. Clark.....	466,267	Dec. 29	3625	927	57	1866
Hinge.....	H. E. Curtis.....	457,824	Aug. 18	1464	381	56	825
Hinge.....	J. D. Davis.....	458,100	Aug. 18	1912	497	56	912
Hinge.....	F. A. H. Faulhaber and C. F. Koch.....	453,803	June 9	982	{ 255 256	55	1342
Hinge.....	C. A. Forsberg.....	459,702	Sept. 15	1839	463	56	1437
Hinge.....	S. P. Gibson.....	454,343	June 16	1736	452	55	1496
Hinge.....	F. W. Hoefer.....	457,721	Aug. 11	1289	335	56	783
Hinge.....	F. Hurst.....	453,481	June 2	481	124	55	1239
Hinge.....	J. G. Kearsing.....	465,112	Dec. 15	1761	445	57	1489
Hinge.....	H. Kirk.....	460,141	Sept. 29	2523	628	56	1580
Hinge.....	C. Kleifgen.....	453,700	June 9	827	210	55	1312
Hinge.....	G. E. Krause and A. Kramer.....	444,445	Jan. 13	723	189	54	151
Hinge.....	F. W. Lowe.....	460,589	Oct. 6	72	20	57	16
Hinge.....	G. W. Niedringhaus and C. Geiss.....	449,628	Mar. 31	3853	965	54	1882
Hinge.....	G. R. Oliver.....	448,301	Mar. 17	1701	431	54	1460
Hinge.....	L. Porter.....	447,971	Mar. 10	1158	294	54	1343
Hinge.....	A. Sonnemann.....	464,269	Dec. 1	425	101	57	1215
Hinge. Adjustable.....	W. McCarthy.....	444,455	Jan. 13	741	193	54	155
Hinge and adjustable clamp. Combined.....	F. G. Draper.....	453,627	June 9	712	184	55	1291
Hinge-butts. Concealed.....	B. F. Bennett.....	465,445	Dec. 22	2296	589	57	1160
Hinge for school-desk seats.....	F. E. Drury and O. C. Clark.....	463,622	Nov. 24	2245	591	57	1011
Hinge for tables, desks, &c. Flush.....	J. Batcheller.....	445,532	Feb. 3	5	1	54	511
Hinge. Gate.....	E. A. Guy.....	455,665	July 7	595	156	56	116
Hinge. Gate.....	F. Ruge.....	448,456	Mar. 17	1947	490	54	1507
Hinge. Gate.....	J. J. Wright.....	445,387	Jan. 27	2236	580	54	462
Hinge-lock.....	T. Corscaden.....	460,678	Oct. 6	229	58	57	47
Hinge. Lock.....	T. Corscaden.....	451,969	May 12	812	207	55	740
Hinge. Lock.....	J. A. Hunter and F. H. Knight.....	452,478	May 19	1689	425	55	908
Hinge. Lock.....	R. G. Pike, Jr.....	457,556	Aug. 11	1039	267	56	736
Hinge. Lock.....	C. C. Ware.....	447,986	Mar. 10	1182	299	54	1348
Hinge. Piano.....	J. Shields.....	457,894	Aug. 18	1590	413	56	848
Hinge-sinker.....	W. H. Gutzman.....	453,045	May 26	2585	654	55	1091
Hinge. Spring.....	G. W. Amos.....	446,617	Feb. 17	1809	{ 447 448	54	883
Hinge. Spring.....	C. Eidänder.....	466,031	Dec. 29	3265	832	57	1796
Hinge. Spring.....	F. W. Hoefer.....	457,720	Aug. 11	1288	335	56	783
Hinge. Spring.....	F. N. Kelsey.....	449,366	Mar. 31	3418	859	54	1799
Hinge. Spring.....	D. Nickel and C. Zattan.....	456,497	July 21	1900	502	56	379
Hinge. Spring.....	M. Redlinger.....	447,844	Mar. 10	939	235	54	1303
Hinge. Spring.....	H. A. J. Rieckert.....	453,503	June 2	514	132	55	1245
Hinge. Spring.....	G. W. Warner.....	448,390	Mar. 17	1849	465	54	1488
Hinge. Spring.....	W. R. Webster.....	452,685	May 19	2001	500	55	969
Hinge. Spring.....	R. H. Wiles.....	464,406	Dec. 1	619	153	57	1251
Hinge. Spring.....	J. Wolf.....	461,908	Oct. 27	2229	551	57	450
Hinge. Spring.....	J. Wolf.....	461,909	Oct. 27	2230	551	57	450
Hinge. Stop.....	J. F. McKibben.....	458,727	Sept. 1	274	66	56	1118

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Hinges. Manufacture of	T. Corseaden	462,238	Nov. 3	26	6	57	556
Hinges. Means for operating lock	L. Abbott	465,810	Dec. 22	2869	734	57	1711
Hitching-box	I. Brooke	447,937	Mar. 10	1095	275	54	1332
Hitching device	F. S. G. Bonneau	455,031	June 30	2908	739	55	1730
Hitching device	G. B. Coombs	461,998	Oct. 27	2365	586	57	476
Hitching device	F. Sweetland	450,382	Apr. 14	1124	275	55	221
Hitching device	L. Weishan, F. Jaster, and H. P. Bohmann.	463,398	Nov. 17	1891	492	57	933
Hitching device for animals	A. Dauphinais	453,830	June 9	1014	264	55	1349
Hitching-post	R. C. Bloomfield	458,938	Sept. 1	609	150	56	1183
Hitching-post	A. E. Fehleisen	444,177	Jan. 6	326	79, 60	54	66
Hitching-post	L. B. Hopkins	458,052	Aug. 18	1842	480	56	897
Hitching-post	H. N. Koddling	465,479	Dec. 22	2350	602	57	1611
Hitching-post	J. Massey	458,737	Sept. 1	286	70	56	1120
Hitching-post. Portable	R. B. Stewart	460,094	Sept. 22	2442	610	56	1558
Hitching-strap	J. C. Young and F. C. Marauville	456,210	July 21	1430	379	56	290
Hitching-weight	I. Motter	450,633	Apr. 21	1540	370	55	317
Hitching-weight	A. Stoltz and C. A. Cannon	453,219	June 2	59	16	55	1160
Hobby-horse	H. Koepf	453,243	June 2	101	27	55	1167
Hod-elevator	G. W. Brown	458,558	Sept. 1	15	3	56	1068
Hod. Mortar	C. Carlson	456,504	July 21	1911	506	56	361
Hoe	F. M. Belden and M. F. Christenson.	464,489	Dec. 8	743	181	57	1285
Hoe	H. M. Brown	452,746	May 19	2109	530	55	969
Hoe	L. Denny	444,393	Jan. 6	644	167	54	126
Hoe	J. H. Garner	456,142	July 21	1328	352	56	271
Hoe and rake handle combined	J. Delvaile	463,108	Nov. 10	1415	365	57	835
Hoe and scraper. Combined horse	L. G. Adsit	463,713	Nov. 24	2397	628	57	1039
Hoe. Cotton	W. B. Smith	461,133	Oct. 13	892	231	57	179
Hoe, pick, and shovel. Combined	J. W. Hurst	465,763	Dec. 22	2803	718	57	1698
Hog-trap	N. C. Bader	446,215	Feb. 10	1165	286	54	742
Hog trap and crate. Combined	J. W. Wade	444,117	Jan. 6	219	53	54	45
Hog-trough	G. L. Kelso	458,031	Aug. 18	1814	473	56	891
Hogs. Apparatus for catching and elevating	T. H. Curtis	458,018	Aug. 18	1792	468	56	866
Hogs' snouts. Device for holding	H. H. Silsby	460,222	Sept. 29	2637	658	56	1604
Hoist	J. N. T. Cawhern	464,929	Dec. 8	1403	354	57	1412
Hoist	F. E. Young	447,483	Mar. 3	361	90	54	1186
Hoist and conveying machinery. Combined	G. H. Hulett	448,297	Mar. 17	1695	428 } 429 }	54	1459
Hoist. Beef	J. R. Luking and C. Thompson	455,408	July 7	181	47	56	38
Hoist-ropes. Device for doubling up the purchase of	A. E. Brown	463,318	Dec. 15	2086	532	57	1550
Hoist-ropes. Doubling up the purchase of	A. E. Brown	466,090	Dec. 29	3352	856	57	1814
Hoist-ropes. Mechanism for doubling up the purchase of	A. E. Brown	465,775	Dec. 22	2818	723	57	1701
Hoist. Traveling	S. A. Hill	456,326	July 21	1619	429	56	326
Hoisting and conveying apparatus	T. S. Miller	447,892	Mar. 10	1015	256	54	1317
Hoisting and conveying apparatus	C. W. Nason	448,823	Mar. 24	2531	634 } 635 }	54	1626
Hoisting and conveying apparatus	C. L. Saunders	456,640	July 28	2141	566	56	434
Hoisting apparatus	W. I. Babcock	459,434	Sept. 15	1406	351	56	1355
Hoisting apparatus	P. Ditchy	458,892	Sept. 1	381	91	56	1138
Hoisting apparatus	W. J. C. Doyle	460,000	Sept. 22	2294	575	56	1530
Hoisting apparatus	J. Gibbins	456,763	July 28	2358	621	56	474
Hoisting apparatus	R. P. Henry	443,993	Jan. 6	7	2, 3	54	4
Hoisting apparatus	A. L. Hitchcock	456,332	July 21	1629	431	56	328
Hoisting apparatus	S. Kaye	462,438	Nov. 3	353	87	57	617
Hoisting apparatus	J. Leach	462,145	Oct. 27	2591	645	57	518
Hoisting apparatus	M. J. Paul	465,114	Dec. 15	1766	446 } 447 }	57	1490
Hoisting apparatus	L. E. Pinkham	461,142	Oct. 13	904	254	57	181
Hoisting apparatus	D. S. White	461,005	Oct. 13	717	185	57	146
Hoisting apparatus. Portable	W. C. Barr	458,993	Sept. 8	695	171	56	1209
Hoisting apparatus. Reversing and brake mechanism for	C. A. Case	448,909	Mar. 24	2668	670	54	1651
Hoisting block and tackle	T. W. R. McCabe	462,501	Nov. 3	438	107 } 108 }	57	634
Hoisting-bucket	O. Johnson	455,544	July 7	397	103 } 104 }	56	77
Hoisting-bucket	C. H. Souther and J. E. Chapman	460,708	Oct. 6	288	70	57	57
Hoisting device	C. W. Maclean	465,869	Dec. 29	2969	758	57	1739
Hoisting device	I. C. Welter	451,716	May 5	413	101	55	657
Hoisting-drums. Brake for	W. C. Davis	466,158	Dec. 29	3460	884	57	1835
Hoisting-machine	J. Allenson	460,491	Sept. 29	3044	763	56	1681
Hoisting-machine	J. Arthur	459,966	Sept. 22	2274	571	56	1526
Hoisting-machine	M. C. Bullock	462,299	Nov. 3	129	32, 33	57	575
Hoisting-machine	O. Crosby	465,982	Dec. 29	3163	811	57	1777
Hoisting-machine	J. L. Dean	450,143	Apr. 14	732	184	55	149
Hoisting-machine	W. Hart	463,719	Nov. 24	2405	630 } 631 }	57	1040
Hoisting-machine	O. F. Smith	464,190	Dec. 1	280	69	57	1188
Hoisting-machine. Electric	G. H. Reynolds	456,908	July 28	2594	682	56	517
Hoisting-machine. Electrical	W. Baxter, Jr	449,661	Apr. 7	14	3, 4	55	5
Hoisting-machine. Portable	E. Burns	460,425	Sept. 29	2945	736	56	1661
Hoisting-machines. Differential mechanism for	G. F. Clemons	449,900	Apr. 7	387	98	55	76
Hoisting-machines. Drum-shifter for	J. U. Elwood	460,853	Oct. 6	487	124	57	97
Hoisting machinery	B. W. Grist	444,592	Jan. 13	962	249 } 250 }	54	199
Hoisting machinery	A. J. Shaw	452,619	May 19	1899	477 } 478 }	55	949
Hoisting mechanism	O. Bates	464,786	Dec. 8	1212	302	57	1375
Hoisting mechanism	J. V. Ericson	452,914	May 26	2371	600	55	1048
Hoisting mechanism. Automatic stop device for	H. Lechtenberg	457,730	Aug. 11	1312	340	56	729
Hoisting mechanism. Self	G. Biddall	459,247	Sept. 8	1101	269	56	1286
Holdback. Carriage	S. A. Prescott	465,201	Dec. 15	1899	482	57	1515
Holdback for vehicle-poles	H. W. Roberts	444,305	Jan. 6	508	132	54	101

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Holdback-iron	A. Kerry	457,725	Aug. 11	1293	337	56	784
Holdback-iron	A. Kerry	466,079	Dec. 29	3332	850	57	1810
Holdback. Vehicle.....	O. Cunniskey	462,377	Nov. 3	256	63	57	600
Holdback. Vehicle.....	S. McDonald	451,160	Apr. 28	2352	584	55	482
Holdback. Vehicle.....	D. Warner	465,224	Dec. 15	1933	491	57	1522
Holder:							
See Air-brake-hose	Lath-holder.						
holder.	Lathe-tool holder.						
Bag-holder.	Lead or crayon holder.						
Basket or tray hold-	Leaf-holder.						
er.	Leggin-holder.						
Bedclothes and baby	Line and trace holder.						
holder.	Line or rope holder.						
Bicycle oil-cup hold-	Map-holder.						
er.	Map or chart holder.						
Bit-holder.	Match-box holder.						
Blanket-holder.	Meat-holder.						
Bolt-holder.	Mop-holder.						
Book-holder.	Mop or brush holder.						
Book and paper	Mucilage-holder.						
holder.	Music-holder.						
Book-leaf holder.	Music-book holder.						
Book or copy holder.	Music-score holder.						
Book or music holder.	Music sheet or book hold-						
Bottle-holder.	er.						
Bottle and drinking-	Newspaper-holder.						
glass holder.	Nipple-holder.						
Broom-holder.	Opera-glass holder.						
Brush-holder.	Order-holder.						
Bouquet-holder.	Paper-holder.						
Boutonnière-holder.	Paper-bag holder.						
Camera-roll holder.	Paper-roll holder.						
Can-cover holder.	Pen-holder.						
Candle-holder.	Pencil-holder.						
Car-label holder.	Pencil and crayon holder.						
Card-holder.	Pencil and sponge holder.						
Carriage-apron hold-	Perfume-holder.						
er.	Photographic-plate hold-						
Carriage-canopy	er.						
holder.	Photographic roll-holder.						
Cartridge-holder.	Picture-holder.						
Chalk-holder.	Pillow-sham holder.						
Chalk-line holder.	Pipe-holder.						
Chart-holder.	Pipe or cigar holder.						
Checkrein-holder.	Plow-bolt holder.						
Cheese-holder.	Punching machine work-						
Cigar-holder.	holder.						
Cigar and cigarette	Rein-holder.						
holder.	Rope-holder.						
Cigar and pipe hold-	Sack-holder.						
er.	Sash-holder.						
Clapboard-holder.	Saw-bit holder.						
Clothes-line holder.	Sewing-machine attach-						
Coat-holder.	ment-holder.						
Coin-holder.	Sewing-machine bobbin-						
Collar and necktie	case holder.						
holder.	Shade-holder.						
Collar and tie holder.	Shade or globe holder.						
Commutator-brush	Shaft-holder.						
holder.	Shoe-holder.						
Copy-holder.	Sleeve-holder.						
Cow tail holder.	Soap-holder.						
Cuff-holder.	Soap-powder holder.						
Cup-holder.	Splasher-holder.						
Curtain-holder.	Spool-holder.						
Cuttle-fish holder.	Stereotype-plate holder.						
Disinfectant-holder.	Stove-pipe holder.						
Egg-holder.	Stub-holder.						
Electric-cable holder.	Surgical-needle holder.						
Envelope-holder.	Telephone-receiver hold-						
Erasive-rubber hold-	er.						
er.	Thill-holder.						
Eyeglass-holder.	Ticket-holder.						
Flower-holder.	Tidy-holder.						
Garment-holder.	Tool-holder.						
Gas-holder.	Tool and work holder.						
Globe-holder.	Towel-holder.						
Hammock-holder.	Train-order holder.						
Harrow-teeth holder.	Trolley-wire holder.						
Hat-holder.	Tug-holder.						
Horse-mane holder.	Twine-holder.						
Horse-tail holder.	Type-holder.						
Hose-holder.	Type-writer copy-holder.						
Ink or color holder.	Umbrella-holder.						
Insulator-holder.	Umbrella or shade hold-						
Jar-holder.	er.						
Key-holder.	Veil-holder.						
Label-holder.	Velocipede brake-holder.						
Lamp-holder.	Watch-jewel holder.						
Lamp-globe holder.	Watch-mainspring holder.						
Lamp-shade holder.	Work-holder.						
Holder.....	W. E. Blodgett	446,545	Feb. 17	1710	419	54	864
Hollow bar	E. L. Clark	456,646	July 28	2152	570	56	437
Hominy-flakes or corn-flakes. Means for manufac-	J. H. Little	446,759	Feb. 17	2036	507	54	928
turing							

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Hominy-mill attachment	H. Y. Batson	450,606	Apr. 21	1453	357	55	293
Hone-stand. Adjustable	R. F. Walter	465,401	Dec. 15	2230	572	57	1577
Honey-extractor. Centrifugal	A. J. Lawson	456,043	July 14	1185	312	56	234
Hoof-expander	G. T. Chapman	446,838	Feb. 17	2139	531	54	950
Hoof-expander	G. T. Chapman	456,082	July 14	1236	324	56	243
Hoof-expander	M. Heagerty	445,778	Feb. 3	439	100	54	598
Hoof-expander and frog-developer. Horse.	D. Roberge, Jr.	446,471	Feb. 17	1506	392	54	842
Hoof-pad	J. T. Duck	445,050	Jan. 20	1729	445	54	354
Hoof-pad	J. Kress	449,368	Mar. 31	3420	860	54	1799
Hoof-pad. Sanitary and protecting	G. R. Meitzler and J. H. Foote	461,160	Oct. 13	934	242	57	186
Hook:							
See Bench-hook.	Monsing-hook.						
Check-hook.	Plumber's shaving-hook.						
Checkrein-hook.	Rope-hook.						
Coat-hook.	Snap-hook.						
Coat and hat hook.	Suspender-hook						
Fish-hook.	Swivel-hook.						
Garment-hook.	Trolley-hook.						
Hame-hook.	Trolling-hook.						
Hat-hook.	Tug-hook.						
Hat and coat hook.	Wardrobe-hook.						
Ice-hook.	Whiffletree-hook.						
Key-hook.	Wire hook.						
Lacing-hook.	Wire suspension-hook.						
Lock-hook.							
Hook	C. P. Bonfoey	453,877	June 9	1072	280	55	1359
Hook	J. L. Bucknam	457,524	Aug. 11	987	252	56	724
Hook	E. Dederick	464,473	Dec. 1	714	174	57	1271
Hook	R. and J. Ingal	446,946	Feb. 24	2353	585	54	997
Hook	J. Killinger	445,895	Feb. 3	624	153	54	634
Hook	R. L. Kirby	465,530	Dec. 22	2446	623	57	1629
Hook	H. W. Matthies	458,590	Sept. 1	67	15	56	1079
Hook	H. H. McLean	450,181	Apr. 14	783	198	55	159
Hook	A. E. Monroe	462,721	Nov. 10	792	207	57	712
Hook	A. W. Parmelee and W. O. Bement.	453,747	June 9	895	233	55	1325
Hook	H. P. Richards	463,974	Nov. 24	2798	725	57	1115
Hook	F. Splittstoser	460,367	Sept. 29	2872	716	56	1648
Hook	W. S. Whiting	456,786	July 28	2387	638	56	479
Hook and molding for hanging clothes or pictures.	A. H. G. Elten	451,270	Apr. 28	2551	629	55	519
Combined							
Hook for wearing-apparel, window-curtains, &c	H. Hutchinson and F. Madgin.	445,893	Feb. 3	620	152	54	634
Hook-making machine. Wardrobe	P. Miles	452,715	May 19	2052	515 516 517 518	55	980
Hooks. Manufacture of wardrobe	C. Glover	453,424	June 2	398	103	55	1222
Hoop:							
See Barrel-hoop.							
Hoop	G. T. Chester	464,554	Dec. 8	841	207	57	1304
Hoop. Child's	H. Doublier	464,151	Dec. 1	216	51	57	1177
Hoop-flaring machine	V. Aucouin	451,439	Apr. 28	2798	691	55	566
Hoop for barrels, &c. Corrugated	G. Souther.	449,597	Mar. 31	3785	950	54	1869
Hoop locks. Machine for cutting wooden	M. Rosenow	453,916	June 9	1124	294	55	1370
Hoop or band rolling mill	T. V. Allis	463,266	Nov. 17	1667	435	57	891
Hoop-riveting machine	W. H. Potter	462,775	Nov. 10	878	230	57	729
Hoop-sawing machine. Barrel	J. C. Ballew	455,980	July 14	1090	286 287	56	216
Hoopng wooden vessels	T. K. Parrish	448,990	Mar. 24	2784	704	54	1674
Hopple	H. Twist	450,650	Apr. 21	1565	376	55	322
Hops. Apparatus for disintegrating spent	E. Davies	450,059	Apr. 7	604	151 152	55	117
Hops. Apparatus for extracting	J. Schneider	450,534	Apr. 14	1339	329	55	264
Horn and producing the same. Artificial	W. Harvey	460,086	Sept. 22	2429	607	56	1556
Horn. Campaign	W. Sellers	455,671	July 7	601	158	56	117
Horns. Escutcheon for exhibiting animals'	F. Kaempfer	453,008	May 26	2529	640	55	1080
Horse-arrester	J. Siebel	463,000	Nov. 10	1236	322	57	799
Horse-attaching device	F. J. Shephard	457,568	Aug. 11	1060	271	56	739
Horse-blanket	O. B. Fales	463,381	Nov. 17	1854	485	57	926
Horse-blanket	J. S. Grant	457,196	Aug. 4	408	106	56	610
Horse-blanket	A. H. Kinder	448,151	Mar. 10	1420	363	54	1398
Horse-blanket	A. F. Ransom	447,793	Mar. 10	858	213	54	1287
Horse-blanket	H. W. Sisson	448,376	Mar. 17	1820	459	54	1483
Horse-blanket fastening	M. T. Martin	461,958	Oct. 27	2310	573	57	465
Horse-blinder	G. J. Kannmacher	461,957	Oct. 27	2309	522	57	465
Horse-boot	M. Barnes	456,688	July 28	2245	587	56	448
Horse-checking device	S. Freeman	456,235	July 21	1479	393	56	299
Horse-checking device	D. C. Knowles	459,293	Sept. 8	1170	284	56	1301
Horse-checking device	O. N. Wardwell and C. A. White.	446,126	Feb. 10	1007	248	54	716
Horse-cleaner	W. W. Cole	463,942	Nov. 24	2750	713	57	1105
Horse-detacher	F. T. Brown, Jr.	451,451	May 5	2	55	580	
Horse-detacher	P. A. Dixon	455,179	June 30	3172	803	55	1781
Horse-detacher	J. H. Garner	457,346	Aug. 11	708	181	56	670
Horse-detacher	J. M. Harden	446,866	Feb. 24	2213	550	54	973
Horse-detacher	E. Hays	456,816	July 28	2435	642	56	488
Horse-detacher	J. McMorries	451,131	Apr. 28	2303	570	55	471
Horse-detacher	R. P. Moran	445,025	Jan. 20	1683	433	54	345
Horse-detacher	P. F. Rachal	465,388	Dec. 15	2211	567	57	1574
Horse-detacher	F. J. Shephard	446,649	Feb. 17	1866	463	54	895
Horse-detacher	D. F. Sloan	448,272	Mar. 17	1641	418	54	1449
Horse-detacher	J. Stern	455,241	June 30	3260	827	55	1798
Horse-detacher and brake	A. H. Chilton	456,613	July 28	2102	555 556	56	426
Horse-driver	O. M. Bryan	456,013	July 14	1146	300	56	226
Horse-heel expander	G. T. Chapman	445,463	Jan. 27	2346	610	54	484

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Horse-heel-expander	G. T. Chapman	449,573	Mar. 31	3736	{ 939 940 }	54	1860
Horse-hitching device	C. See	448,270	Mar. 17	1632	416	54	1447
Horse-mane holder	W. Ambruster	445,485	Jan. 27	2381	619	54	490
Horse-power	J. Ambrose and J. W. Haddick	457,627	Aug. 11	1148	293	56	756
Horse-power	A. F. Clement	451,152	Apr. 28	2337	{ 580 581 }	55	478
Horse-power	E. O., W. O., and H. S. Long	453,195	June 2	24	7	55	1153
Horse-power	E. W. Ross	458,596	Sept. 1	73	16, 17	56	1080
Horse-power press	W. B. Willis	461,463	Oct. 20	1449	365	57	294
Horse-protector	S. P. Hodgen	449,532	Mar. 31	3677	924	54	1850
Horse-rake teeth. Guard for	J. A. Boyer	456,214	July 21	1435	380	56	291
Horse-shield	M. Halfpenny	459,383	Sept. 8	1319	330	56	1330
Horse-stopping device	J. Barthels	451,360	Apr. 28	2676	663	55	543
Horse-tail holder	A. Diebold	461,496	Oct. 20	1555	382	57	313
Horse-tail holder and rein-guard	J. W. Lindsay	451,608	May 5	245	58	55	626
Horse-tracking device for vehicles	P. W. Cashion	445,540	Feb. 3	18	4, 5	54	514
Horse-training blind	B. A. Long	449,485	Mar. 31	3616	910	54	1838
Horse-training device	P. W. Cashion	464,113	Dec. 1	158	39	57	1167
Horses. Adjustable shoe-weight for	G. Tompkins	457,235	Aug. 4	473	124	56	622
Horses. Anti-crib-biting device for	A. Lynch	453,932	June 9	1146	299	55	1374
Horses. Anti-interfering device for	J. Mickel	460,396	Sept. 29	2909	727	56	1655
Horses. Apparatus for treating and taming	H. Sample	453,727	June 9	864	224	55	1319
Horses. Controlling-gear for draft	R. S. Klueck	446,067	Feb. 10	912	223	54	697
Horses. Device for controlling	E. J. Fraser	448,330	Mar. 17	1754	444	54	1471
Horses. Device for driving	H. E. Ware	465,504	Dec. 22	2395	613	57	1619
Horses. Device for holding	J. J. Harris	444,387	Jan. 6	630	163	54	124
Horses. Foot-rasp for	G. Tompkins	450,436	Apr. 14	1207	294	55	236
Horses from cribbing. Apparatus for preventing	J. Christesen	464,554	Dec. 8	1301	326	57	1393
Horses from slipping. Means for preventing	J. H. Borrett	460,459	Sept. 29	2096	750	56	1671
Horses' hoofs. Weight for	G. R. King	460,017	Sept. 22	2320	581	56	1535
Horses. Independent check for	C. R. Taylor	444,677	Jan. 13	1090	282	54	1223
Horses. Interfering-boot for	E. W. Somerlad	459,661	Sept. 15	1720	447	56	1445
Horses. Leg-spreader for	W. Smith and T. E. Hills	454,885	June 30	2626	673	55	1675
Horses. Spreader for gaiting	J. R. Phelps	444,570	Jan. 13	936	243	54	193
Horses. Sunshade for	J. Steiner	456,168	July 21	1365	363	56	279
Horses. Wearing-pad for	J. E. Hayward	460,822	Oct. 6	449	113	57	90
Horseshoe	J. Benfield	463,474	Nov. 17	1995	522	57	954
Horseshoe	H. S. Briscoe	445,000	Jan. 20	1655	424	54	339
Horseshoe	J. Broonett	461,733	Oct. 20	1934	479	57	383
Horseshoe	G. T. Chapman	454,851	June 30	2558	658	55	1663
Horseshoe	W. S. Hitch	458,051	Aug. 18	1840	480	56	897
Horseshoe	E. F. Jones	462,408	Nov. 3	310	77	57	610
Horseshoe	C. J. Jutson and F. A. Poupard	450,622	Apr. 21	1443	364	55	299
Horseshoe	G. D. Lynch	451,332	Apr. 28	2637	652	55	536
Horseshoe	E. Mathis	458,181	Aug. 25	2036	528	56	941
Horseshoe	J. Miller	465,674	Dec. 22	2673	682	57	1672
Horseshoe	W. Somerville, Sr	447,416	Mar. 3	236	60	54	1162
Horseshoe	T. L. Tipton	445,481	Jan. 27	2375	618	54	489
Horseshoe-bars. Manufacture of	C. H. Perkins	449,051	Mar. 24	2872	{ 731 732 }	54	1693
Horseshoe-blank and blank-bar	C. H. Perkins	449,053	Mar. 24	2885	733	54	1694
Horseshoe-blank and blank-bar	C. H. Perkins	449,056	Mar. 24	2888	733	54	1695
Horseshoe-blank bar	C. H. Perkins	419,054	Mar. 24	2886	733	54	1694
Horseshoe-blank bar	C. H. Perkins	449,055	Mar. 24	2887	733	54	1694
Horseshoe-blank bars. Die-roll for making	C. H. Perkins	449,052	Mar. 24	2883	732	54	1693
Horseshoe-blanks. Machine for forming	W. J. Kent	446,066	Feb. 10	911	222	54	697
Horseshoe-blanks. Manufacture of creased bars for	W. Eynon and W. Seaman	446,735	Feb. 17	2000	498	54	920
Horseshoe-calk	G. W. Wemple	465,620	Dec. 22	2593	658	57	1656
Horseshoe-calk. Expansible	J. C. Higgins	464,871	Dec. 8	1329	333	57	1398
Horseshoe-fastening	E. T. Covell	459,394	Sept. 15	1341	336	56	1343
Horseshoe-gage	W. C. Price	448,366	Mar. 17	1805	455	54	1480
Horseshoe. Hoof-spreading	W. Tory	448,736	Mar. 24	2409	602	54	1602
Horseshoe-machine	J. E. Bucklin	450,597	Apr. 14	1432	352	55	281
Horseshoe-machine	C. T. Starbuck	461,598	Oct. 20	1717	420	57	343
Horseshoe-making machine	Z. V. Purdy	450,375	Apr. 14	1116	273	55	219
Horseshoe. Marsh	J. D. Dodge	464,558	Dec. 8	847	209	57	1305
Horseshoe-nail clincher	W. D. Misener	462,268	Nov. 3	76	18	57	566
Horseshoe. Nailless	A. Grainger	456,487	July 21	1889	499	56	377
Horseshoe-stand	A. Fox	457,345	Aug. 11	707	181	56	670
Horseshoe. Supplemental	H. S. Pullman	455,690	July 7	631	167	56	122
Horseshoes. Attaching toe-weights to	G. W. Wemple	451,647	May 5	311	76	55	638
Horseshoes. Device for attaching	R. Barclay	448,312	Mar. 17	1718	435	54	1464
Horseshoes. Manufacture of	J. Vernon	464,209	Dec. 1	319	77, 78	57	1194
Horseshoes. Removable attachment for	T. De Lyons	457,260	Aug. 4	527	138	56	630
Horseshoeing-rack	S. M. Martin	448,060	Mar. 10	1293	330	54	1371
Hose	B. L. Stowe	460,925	Oct. 6	603	153	57	117
Hose-band tightener	C. L. Halstead	451,272	Apr. 28	2551	629	55	520
Hose-bridge	B. E. Henriksen	455,619	July 7	519	134	56	100
Hose-bridge. Portable	P. Swanson	455,566	July 7	469	122	56	91
Hose-carriage. Electric	M. W. Dewey	464,245	Dec. 1	376	91	57	1205
Hose. Carrier-clamp for fire-engine	T. H. Saunders	448,458	Mar. 17	1949	491	54	1508
Hose-clamp	J. H. Crisp	464,338	Dec. 1	521	127	57	1233
Hose-clamp	H. Gerstung, Jr	447,818	Mar. 10	893	223	54	1294
Hose-clamp	J. D. McRae	453,359	June 2	277	74	55	1200
Hose-coupling	J. Balmore and E. E. Gold	462,464	Nov. 3	392	96	57	625
Hose-coupling	C. L. Bastian	456,756	July 28	2350	619	56	473
Hose-coupling	N. J. Byrne	455,606	July 7	503	131	56	97
Hose-coupling	H. C. Doman	455,180	June 30	3172	804	55	1781
Hose-coupling	T. Fricker	455,249	June 30	3271	829	55	1800
Hose-coupling	T. D. Greene	458,349	Aug. 25	2330	569	56	996
Hose-coupling	J. G. Hallas	454,649	June 23	2241	575	55	1595
Hose-coupling	W. L. Johnson	457,724	Aug. 11	1291	336	56	784
Hose-coupling	J. F. McElroy	454,387	June 16	1657	435	55	1480

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Hose-coupling	C. F. Meilink and E. H. Wadsworth.	458,636	Sept. 1	134	30	56	1092
Hose-coupling	L. Ott	450,373	Apr. 14	1111	272	55	219
Hose-coupling	W. D. Patterson	464,386	Dec. 1	589	145	57	1246
Hose-coupling	R. Reid and J. P. Browne	464,893	Dec. 8	1358	341	57	1403
Hose-coupling	L. J. Rice	458,038	Aug. 18	1822	475	56	893
Hose-coupling	J. C. Shull	444,676	Jan. 13	1089	282	54	223
Hose-coupling	G. W. Tinsley	448,693	Mar. 24	2330	584	54	1587
Hose-coupling	B. F. Warner	459,951	Sept. 22	2229	559	56	1517
Hose-coupling	F. W. Wright	449,789	Apr. 7	223	57, 58	55	45
Hose-coupling. Air-brake	A. W. Jackson. (Reissue)	11,141	Jan. 27	2446	637	54	502
Hose-coupling. Electric	J. B. Strauss	454,669	June 23	2268	582	55	1601
Hose-coupling for street-washers	G. W. Tinsley	448,694	Mar. 24	2331	584	54	1588
Hose-coupling for street-washers	G. W. Tinsley	449,838	Apr. 7	301	78	55	59
Hose-couplings. Manufacture of	J. G. Hallas	454,647	June 23	2238	575	55	1595
Hose. Fire	B. L. Stowe	460,924	Oct. 6	602	152	57	117
Hose. Flexible metallic	J. C. Bayles	445,153	Jan. 27	1898	490	54	395
Hose-holder	J. and R. H. Moore	463,068	Nov. 10	1345	348	57	821
Hose. Manufacturing	C. F. Simon	459,536	Sept. 15	1563	390	56	1385
Hose-nozzle	D. Roach	444,712	Jan. 13	1136	293	54	233
Hose-nozzle	N. P. Stevens	463,081	Nov. 10	1363	352	57	825
Hose-nozzle	G. E. Whittaker	457,874	Aug. 18	1554	404	56	842
Hose nozzle and coupling. Reversible	A. B. Foans	450,452	Apr. 14	1226	300	55	240
Hose on the spindles of couplings. Device for fast- ening	J. Young	453,791	June 9	969	252	55	1340
Hose or other pipes. Device for stopping leakage in	J. Lawrence	454,279	June 16	1643	432	55	1478
Hose or pipe coupling	F. W. Wright	464,146	Dec. 1	208	50	57	1176
Hose-pipe. Self-closing	B. F. Perkins	450,679	Apr. 21	1607	386	55	330
Hose-pipes. Clamping-collar for	W. M. Lusk and W. H. Hinkle	455,967	July 14	1075	281	56	213
Hose-reel	W. T. Y. Schenck	446,745	Feb. 17	2012	502	54	923
Hose-reel. Swinging	W. F. Bowers	449,033	Mar. 24	2852	726	54	1688
Hose-strap	D. T. Ellis	461,407	Oct. 13	1357	342	57	271
Hose-supporter	C. C. Shelly	448,768	Mar. 24	2456	614	54	1611
Hose to couplings. Tool for fastening	C. E. Hudson	445,834	Feb. 3	536	130	54	616
Hose-washing machine	A. B. Cosby	447,634	Mar. 3	588	145	54	1228
Hot-air bridge-wall	E. W. Tucker	455,135	June 30	3085	785 } 786	55	1765
Hot-air engine	H. Robinson	445,904	Feb. 3	635	156	54	637
Hot-air furnace	A. C. Barler	463,209	Nov. 17	1573	410	57	873
Hot-air furnace	F. M. Campbell	458,969	Sept. 1	655	160	56	1193
Hot-air furnace	J. W. Connery	458,519	Aug. 25	2606	634 } 635	56	1048
Hot-air furnace	J. Evans	454,264	June 16	1619	425	55	1473
Hot-air furnace	P. C. Hoyt	446,222	Feb. 10	1174	287 } 288	54	744
Hot-air furnace	F. Kernan, Jr., and W. H. Landers	448,783	Mar. 24	2479	620	54	1616
Hot-air furnace	M. Koehler	454,482	June 23	1957	510	55	1546
Hot-air furnace	D. McCowatt	458,477	Aug. 25	2536	617	56	1034
Hot-air furnace	D. J. Murmane and L. J. Treacy	457,003	Aug. 4	112	28	56	555
Hot-air furnace	J. B. Oldershaw	449,693	Apr. 7	72	17, 18	55	16
Hot-air furnace	G. W. Walker	451,962	May 12	800	202 } 203	55	738
Hot-air furnace	G. A. Wells	453,454	June 2	445	114	55	1232
Hot-air motor. Closed high-pressure	A. J. Vautzki	459,501	Sept. 15	1506	377	56	1374
Hot-air motor-engine	L. Genty	461,930	Oct. 27	2269	561 } 562	57	458
Hot-air register	P. J. Miller	458,403	Aug. 25	2123	590	56	1013
Hot-air register	J. Northern	448,141	Mar. 10	1405	359	54	1395
Hot-air register	J. H. Reese	456,520	July 21	1945	512	56	387
Hot-air register	T. G. Wanless	454,096	June 16	1378	360	55	1426
Hot-air register and ventilator	J. Geddes	465,993	Dec. 29	3202	816 } 817	57	1783
Hot-air-register attachment	J. Segal	450,322	Apr. 14	1021	252	55	232
Hot-air, steam, and hot-water heater. Combined	W. H. Denslow	446,163	Feb. 10	1083	266	54	727
Hot-bed covering	A. Smith	444,400	Jan. 6	654	169	54	129
Hot-water and steam heater	E. D. Van Stone	444,802	Jan. 13	1283	333 } 334	54	259
Hot-water boiler	J. H. Wynne	465,420	Dec. 15	2254	578	57	1582
Hot-water circulation. System of	R. Bottsford	452,505	May 19	1794	434	55	915
Hot water for consumption and heating purposes. Method of and apparatus for electrically supplying	M. W. Dewey	451,240	Apr. 28	2497	615	55	508
Hot water for consumption and heating purposes. System for electrically supplying	M. W. Dewey	451,239	Apr. 28	2494	615	55	507
Hot-water heater	F. J. Furman	452,637	May 19	1935	485	55	956
Hot-water heater	C. R. Nelson	462,772	Nov. 10	872	229	57	728
Hot-water heater	J. B. Watson	448,391	Mar. 17	1851	465	54	1488
Hot-water heater or boiler	E. D. Weston	456,747	July 23	2329	614	56	469
Hot-water or steam boiler	C. H. Ross	457,522	Aug. 11	984	251 } 252	56	724
Hotel-indicator	F. B. Wood	454,924	June 30	2708	692	55	1691
House: See Bee-house. Toy fire-engine house. Portable house.							
Houses. Means for securing the inside finishings of	J. Goodin	465,472	Dec. 22	2335	599	57	1608
Household article	A. J. McDonald	461,842	Oct. 27	2119	522	57	427
Household-machine. Universal	A. B. Adams	461,697	Oct. 20	1886	466	57	374
Hub	W. H. Barlow	459,130	Sept. 8	923	222	56	1253
Hub	B. S. Kennett	464,366	Dec. 1	565	139	57	1242
Hub	A. F. Shuler	444,105	Jan. 6	197	48	54	41
Hub and axle	W. W. Flewelling	463,272	Nov. 17	1677	438	57	893
Hub and axle. Vehicle	I. M. Warner	450,438	Apr. 14	1209	295	55	237
Hub. Anti-friction	C. J. Applequist	446,409	Feb. 10	1496	369	54	809
Hub-attacher and lubricator. Combined	L. Faris	455,188	June 30	3121	806	55	1783
Hub-attaching device	W. Brooks and H. Koch	457,042	Aug. 4	163	40	56	564
Hub-attaching device	H. B. Brown	464,849	Dec. 8	1295	324	57	1392

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Hub-attaching device	L. Paris	453,968	June 9	1192	311	55	1384
Hub-attaching device	T. C. Hargrave	457,815	Aug. 18	1448	377	56	823
Hub-attaching device	M. Logsdon and G. Brauns, Jr	464,977	Dec. 15	1500	376	57	1441
Hub-blocks, spokes, &c. Seasoning	H. L. Du Bois	461,329	Oct. 13	1212	{ 308 309 }	57	242
Hub-borer	A. O. Abbott	451,794	May 5	535	132	55	680
Hub-boring machine	A. Bonner	444,810	Jan. 20	1300	338	54	272
Hub-boring machine	T. Paquette and F. R. Child	449,494	Mar. 31	3626	{ 912 913 }	54	1840
Hub-box attachment	N. Harris	452,904	May 26	2356	596	55	1046
Hub for vehicles. Metallic	W. H. Allen	458,992	Sept. 8	695	171	56	1209
Hub. Metal wheel	G. W. Hartley	464,729	Dec. 8	1123	278	57	1358
Hub. Vehicle	J. T. Hart	446,347	Feb. 10	1393	340	54	788
Hub. Vehicle-wheel	A. A. Minor	461,633	Oct. 13	760	195	57	154
Hub. Wheel	M. W. Ford, Jr.	449,264	Mar. 31	3215	811	54	1765
Hub. Wheel	G. H. Smith	454,688	June 23	2296	588	55	1607
Hub. Wheel	A. P. Taylor	453,569	June 2	611	156	55	1263
Hubs. Machine for boring spoke-holes in	W. Hillman	457,719	Aug. 11	1286	{ 333 334 335 }	56	783
Huller: See Clover-huller. Seed-huller. Pea-huller.							
Husking-pin	J. R. Satterthwaite	444,857	Jan. 20	1417	368	54	293
Hydrant	T. W. Brooks	444,329	Jan. 6	542	141	54	108
Hydrant	W. Errington	462,478	Nov. 3	407	100	57	628
Hydrant	J. A. Gregg	462,003	Oct. 27	2372	588	57	477
Hydrant	P. A. Hardwick	458,575	Sept. 1	43	9	56	1074
Hydrant	G. J. Mellin and W. H. Hendrick	461,359	Oct. 13	1268	322	57	253
Hydrant	L. Mertens	453,816	June 9	1000	261	55	1345
Hydrant	S. H. Orwig	448,727	Mar. 24	2392	599	54	1599
Hydrant	W. C. Rathbun	451,518	May 5	108	27	55	600
Hydrant	J. Redican	451,772	May 5	506	125	55	674
Hydrant	W. R. Thropp	448,096	Mar. 10	1340	343	54	1381
Hydrant	A. J. Tyler	462,885	Nov. 10	1059	{ 274 275 }	57	765
Hydrant	G. P. Vincent	463,015	Nov. 10	1254	326	57	803
Hydrant	P. White	455,782	July 14	792	208	56	161
Hydrant. Gate	T. and J. Galvin	458,733	Sept. 1	281	68, 69	56	1120
Hydrant. Irrigating	W. Lacy, Jr.	449,161	Mar. 31	3051	771	54	1734
Hydrant-valve	J. E. Callahan	444,047	Jan. 6	101	26	54	23
Hydraulic cylinder	W. R. Hinsdale	458,300	Aug. 25	2250	{ 549 550 }	56	981
Hydraulic elevator	R. T. Crane	458,223	Aug. 25	2110	548	56	955
Hydraulic elevator	T. W. Eaton	446,620	Feb. 17	1815	449	54	884
Hydraulic elevator	O. Krell	454,872	June 30	2594	666	55	1670
Hydraulic elevator	A. J. McAdam	462,955	Nov. 10	1177	305	57	787
Hydraulic elevator	J. G. Stamp	459,209	Sept. 8	1046	254	56	1275
Hydraulic motor	J. W. Garrett, Jr.	459,280	Sept. 8	1150	281	56	1297
Hydraulic motor	P. O. Gosselin	463,040	Nov. 10	1296	335	57	811
Hydraulic motor	J. B. Hurd and H. H. McLane	461,938	Oct. 27	2281	565	57	400
Hydraulic motor	W. H. Maddock	461,082	Oct. 13	830	{ 213 214 }	57	167
Hydraulic pipe	A. H. McIlvain	459,227	Sept. 8	1069	260	56	1279
Hydraulic power. Apparatus for regulating	R. H. Thorpe	446,799	Feb. 17	2093	{ 521 522 523 }	54	940
Hydraulic press	L. J. Miller	459,816	Sept. 22	2021	{ 506 507 }	56	1478
Hydraulic press	L. Miller	466,175	Dec. 29	3484	890	57	1839
Hydraulic press	L. and L. J. Miller	466,176	Dec. 29	3486	890	57	1839
Hydrocarbon-burner	W. H. Ames	465,746	Dec. 22	2778	709	57	1693
Hydrocarbon-burner	A. C. Banning	454,676	June 23	2478	584	55	1602
Hydrocarbon-burner	I. E. Blake and H. Rauchfuss	452,944	May 26	2432	614	55	1061
Hydrocarbon-burner	I. E. Blake and H. Rauchfuss	453,335	June 2	246	65	55	1195
Hydrocarbon-burner	E. S. Blasdel and J. R. Morse	456,583	July 28	2041	539	56	414
Hydrocarbon-burner	J. Burns	464,850	Dec. 8	1296	324	57	1392
Hydrocarbon-burner	C. E. Cookerly	454,332	June 16	1719	449	55	1493
Hydrocarbon-burner	B. G. Devoe	445,692	Feb. 3	291	77	54	570
Hydrocarbon-burner	B. H. Elwood	449,315	Mar. 31	3319	837	54	1781
Hydrocarbon-burner	W. R. Jeavons	463,629	Nov. 24	2260	595	57	1014
Hydrocarbon-burner	J. McHale and V. C. Dillmann	448,064	Mar. 10	1298	332	54	1372
Hydrocarbon-burner	F. B. Meyers	455,634	July 7	543	142	56	105
Hydrocarbon-burner	E. R. Morse	465,624	Dec. 22	2597	660	57	1657
Hydrocarbon-burner	E. G. Mummery	465,944	Dec. 29	3095	792	57	1764
Hydrocarbon-burner	J. Nichols	451,161	Apr. 28	2352	584	55	482
Hydrocarbon-burner	W. F. Otis	460,653	Oct. 6	190	49	57	40
Hydrocarbon-burner	H. Ruppel	464,717	Dec. 8	1106	274	57	1355
Hydrocarbon-burner attachment	J. W. Coone	452,664	May 19	1970	494	55	963
Hydrocarbon-burners. Governor for	J. C. Shea	461,053	Oct. 13	789	201	57	159
Hydrocarbon-engine	O. Lindner	453,446	June 2	431	111	55	1230
Hydrocarbon-furnace	C. M. Gearing	458,390	Aug. 25	2399	584	56	1009
Hydrocarbon-injector. Automatic	C. D. Javinal	461,500	Oct. 20	1561	383	57	314
Hydrocarbon-oil heater	G. L. Swett	462,175	Oct. 27	2630	656	57	526
Hydrocarbon product	F. Salathé	452,764	May 19	2136	536	55	995
Hydrocarbon to furnaces. Apparatus for feeding	J. Burns	453,142	May 26	2752	693	55	1122
Hydrocarbons. Apparatus for burning	J. H. Bullard	463,853	Nov. 24	2602	677	57	1078
Hydrocarbons. Apparatus for burning	J. H. Bullard	463,854	Nov. 24	2603	677	57	1078
Hydrocarbons. Refining	E. D. Kendall	451,660	May 5	332	.....	55	642
Hydrocarbons. Solidifying liquid	J. H. W. Stringfellow	454,777	June 23	2426	.....	55	1633
Hydrochloric acid from sulpho-chlorides. Removing free	A. Sommer	463,875	Nov. 24	2645	689	57	1065
Hydropneumatic engine	L. Kessler	451,824	May 5	578	{ 142 143 }	55	689
Hygroscope	A. Hagström	447,726	Mar. 3	720	180	54	1254

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Ice and refrigerating machine.....	D. L. Holden.....	444,532	Jan. 13	869	226	54	181
Ice-breaker and electric-current transmitter.....	C. Smith.....	463,257	Nov. 17	1650	429	57	888
Ice breaker or cracker.....	J. E. Richard.....	464,039	Dec. 1	48	13, 14	57	1146
Ice-cream freezer.....	J. Baker.....	459,539	Sept. 15	1567	{ 391 392 393 }	56	1385
Ice-cream freezer.....	T. H. Besse.....	449,434	Mar. 31	3533	890	54	1822
Ice-cream freezer.....	T. H. Besse.....	464,169	Dec. 1	244	60	57	1182
Ice-cream freezer.....	W. T. Bessonette and C. R. King.....	444,790	Jan. 13	1265	328	54	255
Ice-cream freezer.....	J. A. Buffer.....	447,747	Mar. 3	755	188	54	1261
Ice-cream freezer.....	D. C. Camp.....	449,665	Apr. 7	31	6	55	8
Ice-cream freezer.....	F. B. Cochran.....	448,935	Mar. 24	2703	682	54	1659
Ice-cream freezer.....	F. B. Cochran.....	458,097	Aug. 18	1907	496	56	911
Ice-cream freezer.....	E. L. Drake.....	458,543	Aug. 25	2636	642	56	1055
Ice-cream freezer.....	T. B. Garretson and W. R. Thatcher.....	462,696	Nov. 10	757	{ 197 198 }	57	705
Ice-cream freezer.....	J. H. Harris.....	463,709	Nov. 24	2388	626	57	1037
Ice-cream freezer.....	E. D. Middlekauff.....	458,119	Aug. 18	1939	504	56	916
Ice-cream freezer.....	J. M. O'Neill.....	445,072	Jan. 20	1761	454	54	360
Ice-cream freezer.....	T. G. Palmer.....	452,315	May 12	1393	346	55	845
Ice-cream freezer.....	J. A. Rubie and H. Bartholomew.....	456,910	July 28	2598	683	56	518
Ice-cream freezer.....	H. S Chapel.....	459,553	Sept. 15	1595	{ 399 400 }	56	1390
Ice-cream freezer.....	W. J. Shepard.....	448,375	Mar. 17	1819	458	54	1483
Ice-cream freezer.....	R. W. Whitelust.....	461,397	Oct. 13	1340	338	57	267
Ice-cream or other articles. Apparatus for dispensing.....	C. F. Sautter.....	460,220	Sept. 29	2635	658	56	1603
Ice-creeper.....	R. A. Camp.....	450,503	Apr. 14	1301	319	55	257
Ice-creeper.....	W. Kratz.....	462,502	Nov. 3	545	132	57	655
Ice-creeper.....	L. Lamborn.....	456,515	July 21	1935	510	56	386
Ice-creeper.....	M. E. Reilly.....	456,060	July 14	1206	317	56	237
Ice-cutter.....	D. Williamson.....	464,542	Dec. 8	826	203	57	1301
Ice cutter or plow.....	H. Bodenstein.....	449,516	Mar. 31	3661	{ 919 920 }	54	1847
Ice-cutting machine.....	F. J. Gutmann, G. and C. P. Johnson.....	455,323	July 7	36	10	56	10
Ice-cutting machine.....	T. F. Lynch.....	460,440	Sept. 29	2965	741	56	1665
Ice-elevator.....	C. Isbell and S. M. Gillett.....	445,525	Jan. 27	2441	636	54	500
Ice-elevator.....	J. J. Stein.....	464,259	Dec. 1	402	96	57	1210
Ice-freezing machine.....	C. C. Smith.....	450,199	Apr. 14	815	205	55	165
Ice from overhead wires. Device for removing.....	G. Hipwood.....	462,707	Nov. 10	771	201	57	708
Ice-harvesting machine.....	F. E. Kinsman.....	445,896	Feb. 3	625	{ 153 154 }	54	634
Ice hook and pick.....	A. Sanford.....	457,219	Aug. 4	453	118	56	618
Ice-machine.....	T. H. Butler.....	461,233	Oct. 13	1075	372	57	214
Ice-machine.....	O. H. Castle.....	462,689	Nov. 10	750	{ 195 196 197 }	57	704
Ice-machine.....	F. L. Fonda, R. C. Roach, and W. H. Underwood.....	464,862	Dec. 8	1311	{ 328 329 330 }	57	1395
Ice-machine.....	E. J. Hardy.....	446,205	Feb. 10	1146	281	54	738
Ice-machine.....	T. J. Lemon.....	453,084	May 26	2636	670	55	1104
Ice-machine.....	B. Thoenes and A. Gerdes.....	463,958	Nov. 24	2769	718	57	1110
Ice-machine pump.....	F. X. Kuhn.....	465,276	Dec. 15	2022	517	57	1538
Ice-making and refrigerating.....	T. Rose.....	446,076	Feb. 10	923	226	54	700
Ice-making and refrigerating apparatus.....	F. B. Hill.....	462,551	Nov. 3	521	127	57	651
Ice-making and refrigerating machine.....	W. H. Appleton.....	458,440	Aug. 25	2475	603	56	1023
Ice-making and refrigerating machine.....	E. T. Winkler.....	452,536	May 19	1773	{ 447 448 449 }	55	924
Ice-making apparatus. Oiling and cooling appliance for the piston-rods of pumps for.....	E. T. Winkler.....	452,534	May 19	1770	{ 445 446 }	55	924
Ice-making, cooling, and refrigerating apparatus.....	F. B. Hill.....	464,434	Dec. 1	652	161	57	1259
Ice-making machines. Compression-pump for.....	E. T. Winkler.....	452,537	May 19	1775	447	55	924
Ice-making machines. Condenser-coil for.....	E. T. Winkler.....	452,535	May 19	1771	446	55	924
Ice. Manufacture of.....	E. A. Quisenberry.....	460,029	Sept. 22	2333	585	56	1338
Ice. Method of and apparatus for manufacturing.....	E. A. Quisenberry.....	460,028	Sept. 22	2331	584	56	1337
Ice-pick.....	F. P. Pieghear.....	452,555	May 19	1804	454	55	930
Ice pick, shaver, and scoop. Combined.....	F. K. Kaiser.....	458,463	Aug. 25	2506	609	56	1029
Ice-plane.....	C. Bew.....	447,655	Mar. 3	616	152	54	1234
Ice planing and corrugating apparatus.....	G. A. Birch.....	447,000	Feb. 24	2434	{ 605 606 }	54	1012
Ice-plow cutter.....	H. Bodenstein.....	449,517	Mar. 31	3662	920	54	1847
Ice-runway chutes. Switch for.....	E. Littlefield.....	459,478	Sept. 15	1470	370	56	1367
Ice-shaving machine.....	F. O. Opitz.....	456,838	July 28	2477	651	56	495
Ice-tongs.....	F. X. Brenner.....	458,383	Aug. 25	2389	583	56	1007
Ice-tongs.....	J. Brinkerhoff.....	446,171	Feb. 10	1097	269	54	729
Ice-water receptacle.....	H. Paddock.....	444,013	Jan. 6	47	13	54	12
Identification-card.....	H. Pincus.....	462,584	Nov. 3	576	140	57	661
Identity-indicator.....	C. F. Goldbeck.....	458,126	Aug. 18	1950	506	56	918
Igniting device. Automatic electric.....	T. W. Lane.....	444,896	Jan. 20	1475	381	54	304
Illuminating purposes. Glass globe for.....	E. Hobbs.....	453,187	June 2	15	5	55	1152
Impact tool.....	W. G. Scott.....	459,891	Sept. 22	2141	538	56	1502
Impalement-trap.....	W. Cameron.....	459,674	Sept. 15	1798	452	56	1428
Implement. Combination.....	V. L. Williams.....	458,122	Aug. 18	1943	505	56	917
Incandescent.....	O. B. Fahnehjelm.....	450,123	Apr. 7	698	176	55	136
Incandescent burner and method of using the same.....	H. C. Campbell.....	447,757	Mar. 10	778	193	54	1272
Incandescents. Tinting.....	C. Dellwik.....	450,960	Apr. 21	2048	.....	55	413
Incandescents. Treating.....	C. Dellwik.....	450,961	Apr. 21	2049	.....	55	413
Inclining table.....	C. L. Hartsfeld.....	444,634	Jan. 13	1015	264	54	209
Incrustation-preventive.....	J. Draper and A. Holmgren.....	453,882	June 9	1078	.....	55	1360
Incrustation-preventive.....	J. Efrum.....	456,760	July 28	2355	.....	56	474
Incrustation-preventive.....	J. A. Kassebaum and M. D. Darr.....	453,644	June 9	736	.....	55	1295
Incrustation-preventive.....	J. F. Stephenson.....	451,083	June 16	1361	.....	55	1423
Incubator.....	F. C. Beardsley.....	458,141	Aug. 18	1970	511	56	922
Incubator.....	A. H. Burr.....	456,794	July 28	2398	{ 631 632 }	56	482

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Incubator.....	F. Frey and A. M. Wayne.....	456,407	July 21	1753	{ 463 464 }	56	351
Incubator.....	N. L. Garrett.....	450,010	Apr. 7	537	134	55	104
Incubator.....	A. P. Hazard.....	446,133	Feb. 10	1017	251	54	717
Incubator.....	S. H. Petro.....	446,980	Feb. 24	2408	599	54	1008
Incubator.....	H. H. Unland.....	447,453	Mar. 3	302	76	54	1175
Incubator.....	C. and E. Von Culin.....	446,090	Feb. 10	947	232	54	703
Incubator.....	C. and E. Von Culin. (Reissue).....	11,194	Sept. 22	2456	614	56	1561
Incubator and brooder.....	G. S. Singer.....	464,804	Dec. 8	1236	{ 307 308 309 }	57	1379
Incubators. Egg-tray for.....	W. H. Sullivan.....	448,558	Mar. 17	2091	524	54	1535
Incubators. Heat-regulating device for.....	H. A. Coffin.....	461,534	Oct. 20	1623	396	57	325
Incubators. Temperature-regulator for.....	C. A. Corman.....	464,957	Dec. 15	1467	369	57	1435
Index.....	T. C. Brinkley.....	464,629	Dec. 8	953	235	57	1327
Index.....	H. Brown.....	460,700	Oct. 6	276	67	57	54
Index.....	A. W. Johnston.....	463,744	Nov. 24	2435	638	57	1046
Index.....	W. A. Judge.....	446,756	Feb. 17	2030	506	54	927
Index.....	W. H. Tucker.....	455,807	July 14	836	{ 220 221 }	56	169
Index.....	M. H. Watson.....	461,787	Oct. 20	2025	500	57	401
Index and photograph-album. Rotary.....	B. Stannton.....	452,957	May 26	2450	618	55	1064
Index and register. Combined.....	J. H. Carpenter.....	449,105	Mar. 31	2963	750	54	1718
Index-books. Machine for cutting.....	J. W. MacLachlan.....	464,438	Dec. 1	661	{ 162 163 }	57	1261
Index-cutter.....	W. Braidwood.....	453,103	May 26	2691	678	55	1111
Index for books.....	F. Barritt.....	460,519	Sept. 29	3106	777	56	1694
Index for letter or account books.....	W. D. Bevin.....	464,417	Dec. 1	634	156	57	1255
Index. Marginal.....	F. W. Hewes.....	455,817	July 14	859	225	56	173
Index-tab.....	J. Buscher.....	450,055	Apr. 7	600	149	55	116
Indexing letters, &c.....	J. B. Nordhem.....	463,640	Nov. 24	2273	599	57	1016
Indicating, registering, and adding mechanisms. Locking device for Indicator:.....	C. W. Weiss.....	456,177	July 21	1377	366	56	281
See Barber's indicator. Lamp-filling indicator.							
Base-ball indicator. Mileage-book indicator.							
Car-indicator. Office-indicator.							
Cash-indicator. Piston-travel indicator.							
Cash-register indicator. Post-office indicator.							
Electric indicator. Potential indicator.							
Electric indicator. Racing-indicator.							
Electric-current indicator. Railway-indicator.							
Electrical indicator. Saw-mill indicator.							
Electrical indicator. Sewer-gas indicator.							
Electrical sporting-indicator. Speed indicator.							
Elevator-indicator. Station-indicator.							
Engine-indicator. Station or street indicator.							
Fire-indicator. Street and station indicator.							
Hat-box indicator. Switch-indicator.							
Hotel-indicator. Visual indicator.							
Identity-indicator. Water-level indicator.							
Knitting-indicator.							
Indicator.....	J. L. Dawson.....	445,271	Jan. 27	2082	537	54	430
Indicator.....	J. S. Reamer.....	452,111	May 12	1077	273	55	785
Indicator and advertising device. Combined.....	E. C. Smith.....	450,897	Apr. 21	1941	476	55	392
Indicator-lock.....	L. Bishop.....	462,194	Oct. 27	2668	668	57	533
Indicator-lock.....	J. M. Edgar.....	449,314	Mar. 31	3316	836	54	1781
Indicator-lock.....	J. M. Edgar.....	458,125	Aug. 18	1948	506	56	918
Induction-coil.....	F. H. Brown.....	446,730	Feb. 17	1990	497	54	918
Ingot for plated wire.....	G. U. Meyer.....	460,920	Oct. 6	598	151	57	117
Ingot-manipulator.....	J. A. Burns.....	464,708	Dec. 8	1092	{ 270 271 }	57	1352
Ingot-mold-making machine.....	C. S. and J. H. Rahling.....	461,487	Oct. 20	1541	378	57	311
Ingot-stripping device.....	W. R. Hinsdale.....	453,325	June 2	926	59, 60	55	1191
Ingot and wire made therefrom. Manufacture of seamless compound.....	L. L. Burdon.....	460,108	Sept. 29	2464	616	56	1570
Ingot for seamless plated wire. Making.....	G. U. Meyer.....	460,921	Oct. 6	599	152	57	117
Ingot. Forming.....	W. R. Hinsdale.....	444,381	Jan. 6	622	161	54	123
Ingot. Protective tip for.....	W. R. Hinsdale.....	456,953	Aug. 4	52	12	56	542
Inhaler.....	J. R. Cadwell.....	465,456	Dec. 22	2313	594	57	1604
Inhaler.....	C. L. Coulter.....	453,626	June 9	712	184	55	1291
Inhaler.....	G. Elliott.....	451,998	May 12	861	220	55	749
Inhaler.....	A. K. Ives.....	464,969	Dec. 15	1438	374	57	1439
Inhaler.....	C. A. Simpson.....	454,142	June 16	1442	377	55	1438
Inhaler.....	F. L. Upjohn.....	453,677	June 9	784	202	55	1304
Inhaler.....	B. D. Watkins.....	457,039	Aug. 4	159	39	56	564
Inhaler.....	J. W. Wood.....	466,130	Dec. 29	3419	875	57	1627
Inhaler and medicine holder.....	A. J. Wassmuth.....	462,608	Nov. 3	609	151	57	668
Inhaling apparatus.....	J. Bonner.....	464,808	Dec. 8	1242	310	57	1381
Initial ring. Interchangeable.....	J. Bonner.....	464,809	Dec. 8	1242	310	57	1381
Initial ring. Interchangeable.....	O. L. Hallbeck.....	450,885	Apr. 21	1928	473	55	389
Injector.....	O. L. Hallbeck.....	450,935	Apr. 21	1989	489	55	402
Injector.....	T. J. Hart.....	461,197	Oct. 13	1005	256	57	200
Injector.....	L. Kaczander and R. Ruddy.....	445,642	Feb. 3	201	53	54	551
Injector.....	W. B. Mack.....	457,514	Aug. 11	976	249	56	722
Injector.....	W. B. Mack.....	457,515	Aug. 11	977	249	56	722
Injector.....	W. R. Park.....	448,488	Mar. 17	1999	500	54	1516
Injector.....	T. J. Sweeney.....	459,601	Sept. 15	1675	418	56	1405
Injector.....	J. Trix.....	450,202	Apr. 14	819	206	55	165
Injector. Automatic visible-feed.....	R. Goodbody.....	446,749	Feb. 17	2020	504	54	924
Injector-burner.....	J. Holden.....	465,268	Dec. 15	2005	513	57	1535
Injector for feeding steam-boilers.....	J. W. Binder.....	452,175	May 12	1191	301	55	806
Injector. Steam.....	J. Desmond.....	445,831	Feb. 3	532	129	54	615

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Injector. Steam.....	J. Desmond.....	464,339	Dec. 1	522	127	57	1233
Injectors. Tell-tale for.....	G. C. Thayer.....	452,811	May 26	2209	554	55	1019
Ink.....	T. W. Just, R. Weiler, and O. Heidepriem.	465,860	Dec. 29	2956	.....	57	1737
Ink. Making.....	E. Watson.....	458,741	Sept. 1	294	.....	56	1122
Ink or color holder.....	A. V. Benoit.....	445,764	Feb. 3	414	103	54	594
Ink-well.....	W. M. Brown.....	459,439	Sept. 15	1412	{ 353 } 354	56	1356
Ink-well.....	J. G. Garretson.....	448,423	Mar. 17	1898	476	54	1498
Ink-well.....	J. F. Lash.....	466,247	Dec. 29	3590	917	57	1859
Ink-well.....	W. A. Miller.....	444,365	Jan. 6	594	153	54	118
Ink-well. Automatic.....	W. C. Parsons.....	452,481	May 19	1692	426	55	909
Ink-well for desks.....	H. G. Avery.....	459,433	Sept. 15	1405	351	56	1355
Ink-well for desks.....	W. M. Brown.....	444,876	Jan. 20	1445	376	54	299
Ink-well for desks.....	W. M. Brown.....	459,438	Sept. 15	1410	353	56	1656
Ink-well for desks.....	W. M. Brown. (Reissue).....	11,197	Oct. 13	1363	344	57	272
Inking device.....	M. J. Dolphin.....	449,110	Mar. 31	2977	752	54	1721
Inking device.....	M. J. Dolphin.....	449,405	Mar. 31	3481	876	54	1812
Inking-pad.....	E. J. Brooks.....	447,714	Mar. 3	700	175	54	1250
Inking-pad.....	A. Woodruff.....	456,607	July 28	2087	552	56	423
Inking-pads. Machine for finishing.....	J. W. Birch.....	456,544	July 28	1984	523	56	403
Inking-rollers. Apparatus for applying skins, &c., to.....	J. T. Cartwright and R. Wallwork.....	464,093	Dec. 1	132	32, 33	57	1162
Inkstand.....	J. Adair.....	453,687	June 9	804	206	55	1308
Inkstand.....	W. H. Berry.....	452,252	May 12	1308	327	55	830
Inkstand.....	C. E. Blue.....	446,591	Feb. 17	1775	438	54	877
Inkstand.....	L. Boldt.....	458,011	Aug. 18	1786	466	56	885
Inkstand.....	J. W. Carter.....	462,856	Nov. 10	1015	261	57	756
Inkstand.....	W. G. Collins.....	461,126	Oct. 13	883	229	57	177
Inkstand.....	E. T. Darke.....	451,030	Apr. 28	2158	533	55	442
Inkstand.....	G. J. Fraser.....	460,435	Sept. 29	2959	740	56	1664
Inkstand.....	W. E. Lewis.....	454,874	June 30	2597	667	55	1670
Inkstand.....	J. A. Macmeikan.....	454,173	June 16	1490	391	55	1448
Inkstand.....	E. S. Raff.....	445,200	Jan. 27	1970	509	54	409
Inkstand.....	E. S. Raff.....	445,201	Jan. 27	1971	509	54	409
Inkstand.....	C. A. Sigelen.....	464,831	Dec. 8	1269	318	57	1386
Inkstand.....	G. W. Steffens.....	459,820	Sept. 22	2043	513	56	1493
Inkstand.....	H. C. Stifel.....	453,519	June 2	535	137	55	1249
Inkstand.....	H. C. Stifel.....	458,078	Aug. 18	1876	489	56	904
Inkstand.....	T. Sweesy.....	451,741	May 5	460	112	55	666
Inkstand and calendar. Combined.....	H. B. Weaver.....	455,048	July 7	567	146	56	110
Inkstand. Fountain.....	C. W. Rohrkaste.....	450,497	Apr. 14	1294	317	55	235
Inkstand or bottle.....	W. Rodiger.....	463,214	Nov. 17	1580	411	57	874
Inkstand-receptacle and pad-holder. Combined.....	J. C. Hacker.....	448,027	Mar. 10	1246	317	54	1361
Inkstand. Traveling.....	H. S. S. Fooks.....	450,066	Apr. 7	614	155	55	119
Inkstands. Fountain attachment for.....	J. V. Bergen.....	446,279	Feb. 10	1288	315	54	767
Inseam-trimming machine.....	A. La Bonté.....	456,041	July 14	1182	311	56	233
Insect-catcher.....	A. Ansley.....	453,792	June 9	971	252	55	1340
Insect-catcher.....	H. C. Dexter.....	454,720	June 23	2344	602	55	1617
Insect-destroyer. Wheeled.....	A. D. Tyrrel.....	444,786	Jan. 13	1261	327	54	254
Insect-guard.....	S. W. Conrad.....	460,429	Sept. 29	2949	736	56	1662
Insect-powder distributor.....	L. A. Preston.....	446,626	Feb. 17	1824	451	54	886
Insect-powder distributor.....	A. M. Waddill, Jr.....	445,482	Jan. 27	2376	618	54	489
Insect-trap.....	C. L. D'Ivernois.....	465,167	Dec. 15	1852	470	57	1506
Insect-trap.....	J. M. King.....	453,842	June 9	1027	268	55	1351
Insect-trap.....	J. G. Roth.....	449,138	Mar. 31	3022	764	54	1728
Insect-trap.....	F. Swenson.....	464,400	Dec. 1	613	151	57	1250
Insects. Composition for exterminating.....	A. O. Hagstedt.....	449,905	Apr. 7	394	.....	55	77
Insects on plants. Compound for destroying.....	W. L. Watson.....	465,789	Dec. 22	2836	.....	57	1705
Insecticide.....	P. Leonardi, P. Zen, and G. Sardi.....	458,908	Sept. 1	565	.....	56	1173
Insecticide.....	D. W. Staples.....	456,602	July 28	2075	.....	56	420
Insecticide.....	R. Wheeler.....	460,227	Sept. 29	2646	.....	56	1605
Insecticide-distributor.....	H. Myers.....	454,117	June 16	1405	367	55	1431
Insecticide-distributor.....	D. Pratt.....	455,463	July 7	258	65	56	52
Insole.....	W. Cross.....	466,297	Dec. 29	3678	939	57	1875
Insole.....	J. C. French.....	445,312	Jan. 27	2134	551	54	442
Insole.....	S. Snellenberg and C. P. Booth.....	450,920	Apr. 21	1973	484	55	399
Insoles. Machine for hammering down the edges of.....	F. F. Field.....	463,447	Nov. 17	1952	509	57	946
Instruction in reading and calculating. Device for.....	W. W. Hallett.....	462,405	Nov. 3	306	76	57	609
Insulated conductors. Manufacturing.....	C. Cuttriss.....	455,789	July 14	806	211	56	164
Insulated contact for electric switches.....	O. S. Platt.....	456,250	July 21	1503	399	56	304
Insulated electric conductor.....	J. D. Bishop.....	449,400	Mar. 31	3472	874	54	1810
Insulated electric conductor.....	E. D. McCracken.....	454,060	June 16	1322	345	55	1416
Insulated electric conductor.....	E. D. McCracken.....	456,120	July 14	1280	338	56	254
Insulated electric conductor.....	J. B. Williams.....	451,586	May 5	214	51	55	620
Insulated electric conductor.....	J. B. Williams.....	451,587	May 5	217	51	55	620
Insulated electric conductor.....	J. B. Williams.....	452,510	May 19	1732	436	55	916
Insulated electric conductor.....	J. B. Williams.....	452,725	May 19	2071	521	55	983
Insulated electrical conductor.....	E. D. McCracken.....	455,904	July 14	979	255	56	106
Insulated wires. Testing.....	R. Varley, Jr.....	464,125	Dec. 1	173	42	57	1170
Insulating-clamp for span-wires.....	W. E. Baker and C. H. Macloskie.....	453,100	May 26	2688	677	55	1111
Insulating-cleat. Electric-wire.....	J. S. Potter and D. J. Cartwright.....	444,317	Jan. 6	529	137	54	106
Insulating coatings or linings in electrolytic apparatus. Production of.....	L. Grabau.....	465,369	Dec. 15	2184	560	57	1568
Insulating composition.....	S. W. Kimble.....	464,367	Dec. 1	566	.....	57	1242
Insulating compound.....	J. L. Marmad.....	458,551	Aug. 25	2646	.....	56	1057
Insulating coupling-block and cut-out.....	S. Bergmann and C. J. Klein.....	446,180	Feb. 10	1109	271	54	732
Insulating-cover for trolley or conducting wires for electric railways.....	A. L. Ide.....	453,326	June 2	228	60	55	1191
Insulating electric conductors.....	T. E. Morford.....	457,828	Aug. 18	1469	383	56	826
Insulating material.....	A. W. Sperry.....	454,547	June 23	2059	.....	55	1564
Insulating material. Composition for.....	E. Thomson.....	460,765	Oct. 6	367	.....	57	72
Insulating purposes. Composition of matter for.....	M. O. Farrar and C. C. Howe.....	461,467	Oct. 20	1459	.....	57	297
Insulating purposes, &c. Composition of matter for.....	S. W. Kimble.....	464,369	Dec. 1	569	.....	57	1242
Insulating purposes. Composition of matter for.....	F. Salathé.....	452,760	May 19	2131	.....	55	995

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Insulating purposes. Composition of matter for.....	F. Salathé.....	452,765	May 19	2138	.....	55	995
Insulating purposes, &c. Manufacturing a composition applicable for electrical	E. Fahrig.....	460,056	Sept. 22	2381	.....	56	1546
Insulating-support for electric conductors.....	R. J. Hewett.....	461,631	Oct. 20	1777	437	57	354
Insulating-support for electrical apparatus.....	S. W. Kimble.....	464,368	Dec. 1	568	139	57	1242
Insulating swing-joint.....	H. P. Drew.....	451,300	Apr. 28	2590	639	55	527
Insulation for electric wires.....	J. R. Markle.....	460,725	Oct. 6	311	76, 77	57	61
Insulation of armatures for dynamo-electric machines.	R. Eickemeyer.....	450,367	Apr. 14	1103	270	55	217
Insulation of electric conductors.....	F. J. Nash.....	447,896	Mar. 10	1026	258	54	1319
Insulator.....	G. S. Albanese.....	465,961	Dec. 29	3123	801	57	1769
Insulator.....	M. C. Chase.....	458,221	Aug. 25	2107	546	56	955
Insulator.....	T. Creighton.....	450,708	Apr. 21	1650	396	55	338
Insulator.....	C. Elkins.....	444,879	Jan. 20	1448	376	54	299
Insulator.....	C. L. Gerrard.....	459,686	Sept. 15	1812	455	56	1432
Insulator.....	R. D. Haines.....	451,379	Apr. 28	2697	669	55	547
Insulator.....	C. A. Lieb and E. Lavens.....	450,294	Apr. 14	971	241	55	193
Insulator.....	L. McCarthy.....	449,943	Apr. 7	445	111	55	87
Insulator.....	J. F. Munsie.....	455,107	June 30	3038	772	55	1755
Insulator.....	F. A. Ross.....	460,448	Sept. 29	2973	{ 743 744 }	56	1667
Insulator.....	V. Thomas.....	459,843	Sept. 22	2059	517	56	1486
Insulator.....	W. Vogler.....	445,008	Jan. 20	1665	427	54	341
Insulator.....	G. K. Wheeler.....	448,395	Mar. 17	1856	466	54	1489
Insulator.....	H. D. Winton.....	445,790	Feb. 3	456	113	54	601
Insulator-bracket.....	V. A. Thomas.....	463,587	Nov. 17	2178	575	57	989
Insulator-bracket.....	V. A. Thomas.....	463,588	Nov. 17	2179	575	57	989
Insulator. Electric.....	J. R. Branch.....	445,969	Feb. 10	742	182	54	667
Insulator. Electric.....	G. H. Graham and T. Gannane.....	448,956	Mar. 24	2738	690	54	1665
Insulator. Electric.....	B. Jennings.....	452,523	May 19	1756	441	55	921
Insulator. Electric.....	S. Oakman.....	451,950	May 12	781	198	55	734
Insulator. Electric-wire.....	D. A. Bertollette.....	450,384	Apr. 14	1126	276	55	222
Insulator. Electric-wire.....	H. F. Newell.....	463,955	Nov. 24	2764	717	57	1109
Insulator for electrical conductor for mines.....	F. A. Pocock.....	448,838	Mar. 24	2555	641	54	1630
Insulator for marine condensers.....	P. Decker.....	454,717	June 23	2340	601	55	1616
Insulator-holder for electric railways.....	B. Jennings.....	452,645	May 19	1943	487	55	958
Insulator-pin machine.....	A. D. Catlin.....	449,773	Apr. 7	200	51	55	41
Insulator. Span-wire.....	W. S. Jarboe, W. P. Seibert, and J. White.....	456,574	July 28	2027	537	56	412
Insulator. Span-wire.....	W. P. Seibert.....	456,600	July 28	2073	548	56	420
Insulator-support.....	T. C. Smith.....	463,172	Nov. 17	1521	396	57	863
Insulators. Guard for trolley-wire.....	F. O. Blackwell.....	465,447	Dec. 22	2299	590	57	1602
Insulators, packings, &c. Compound for the manufacture of	A. W. Sperry.....	454,548	June 23	2060	.....	55	1564
Insulators. Press for molding glass.....	L. B. Gray.....	462,862	Nov. 10	1023	264	57	758
Interchangeable die.....	H. B. Anable.....	444,682	Jan. 13	1099	284	54	225
Interchangeableswitch and signal-stand. Automatic.	N. W. Boyd.....	456,645	July 28	2149	570	56	436
Interfering-straps. Rubber pad for.....	M. Haughey.....	454,210	June 16	1544	406	55	1459
Interlocking bolt.....	T. J. Bush.....	444,988	Jan. 20	1636	419	54	335
Interlocking switch.....	A. G. Leonard.....	459,497	Sept. 15	1500	376	56	1373
Intestinal perforations. Device for detecting.....	R. T. Crane.....	464,692	Dec. 8	1060	264	57	1346
Intestine-cleaning machine.....	F. E. Davis and O. Aberle.....	462,809	Nov. 10	938	{ 244 245 }	57	741
Invalid-chair.....	M. A. Darrow.....	450,835	Apr. 21	1849	450	55	374
Invalid-table.....	A. Loehner and E. G. Newman.....	462,319	Nov. 3	161	41	57	581
Invalid's bracket.....	J. Greer.....	465,926	Dec. 29	3063	786	57	1758
Invalid's table.....	M. A. Hawley.....	456,990	Aug. 4	99	24	56	552
Invisible comb for hair-dressing.....	H. A. Emery.....	459,000	Sept. 8	705	173	56	1211
Invoice-blank.....	J. C. Bonner.....	465,336	Dec. 15	2123	544	57	1556
Iodine by electrolysis. Making.....	T. Parker and A. E. Robinson.....	448,541	Mar. 17	2068	.....	54	1531
Iodine. Obtaining.....	H. H. Wing.....	456,183	July 21	1389	{ 367 368 }	56	283
Iodine with thymol. Compound of.....	J. Messinger and G. Vortmann.....	446,875	Feb. 24	2228	.....	54	976
Iron:							
See Branding-iron. Holdback-iron.							
Car draw-iron. Sad-iron.							
Chair-iron. Shaft-iron.							
Crimping and curl-iron. Smoothing-iron.							
ing iron. Soldering-iron.							
Curling-iron. Thill-iron.							
Iron and cast steel. Composition of matter for purification and strengthening of	C. L. Hartsfeld.....	459,494	Sept. 15	1496	.....	56	1372
Iron and steel. Purifying.....	T. R. Timby.....	462,602	Nov. 3	600	148	57	666
Iron bars or beams. Machine for curving.....	B. F. Haugh.....	446,132	Feb. 10	1015	{ 250 251 }	54	717
Iron globule. Chilled.....	B. C. and R. A. Tilghman.....	446,988	Feb. 24	2419	.....	54	1010
Iron globules. Manufacturing chilled.....	B. C. and R. A. Tilghman.....	446,988	Feb. 24	2416	.....	54	1009
Iron globules. Manufacturing chilled.....	B. C. and R. A. Tilghman.....	446,987	Feb. 24	2417	.....	54	1010
Iron inclosures. Construction of.....	G. J. Woelfel.....	465,509	Dec. 22	2405	615	57	1621
Iron. Making basic persulphate of.....	J. Van Ruymbeke.....	453,137	May 26	2741	.....	55	1121
Iron. Manufacture of galvanized.....	J. W. Richards.....	456,204	July 21	1422	.....	56	289
Iron. Melting.....	H. J. Graf.....	454,209	June 16	1543	406	55	1458
Iron or tin from waste material in old cans, &c. Manufacture of taggers	W. L. Brockway.....	452,069	May 12	1001	.....	55	772
Iron ore for furnace use. Compound for preparing.....	G. Conkling.....	464,815	Dec. 8	1247	.....	57	1382
Iron. Rolls for shaping and perforating.....	Z. V. Purdy.....	453,161	May 26	2781	699	55	1127
Iron, stone, &c. Composition for treating.....	G. B. Smith.....	450,388	Apr. 14	1130	.....	55	222
Iron tablets. Ornamenting.....	J. Cavalli.....	465,833	Dec. 29	2913	746	57	1729
Iron. Treating.....	J. A. Stephan and R. Southerton.....	460,405	Sept. 29	2920	.....	56	1657
Ironer. Electrically-heated wristband.....	W. Mitchell.....	459,070	Sept. 8	821	199	56	1232
Ironing and polishing machine.....	S. E. Hill.....	462,552	Nov. 3	525	{ 127 128 }	57	651
Ironing-board.....	S. C. Horn.....	446,776	Feb. 17	2056	512	54	932
Ironing-board.....	J. L. Means.....	451,945	May 12	776	196	55	733
Ironing-board.....	A. Sommerfeld.....	446,169	Feb. 10	1093	268	54	729

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Ironing-board	J. F. White	450,210	Apr. 14	832	209	55	168
Ironing-board	E. E. Wood	447,745	Mar. 3	752	188	54	1260
Ironing-board attachment	L. Reynolds	449,172	Mar. 31	3067	775	54	1737
Ironing-board blanket	J. J. Sanders	457,033	Aug. 4	153	37	56	563
Ironing board. Shirt-	R. J. Brown	463,185	Nov. 17	1538	401	57	866
Ironing-machine	G. Binder	444,722	Jan. 13	1149	{ 296 297 }	54	234
Ironing-machine	W. Bullock	454,456	June 23	1918	{ 500 501 }	55	1538
Ironing-machine	J. G. Crawford	447,559	Mar. 3	476	117	54	1207
Ironing-machine	G. J. Fritz	458,893	Sept. 1	544	132	56	1169
Ironing-machine	J. S. Knisely	458,772	Sept. 1	336	81, 82	56	1130
Ironing-machine	J. McKay	456,658	July 28	2172	576	56	440
Ironing-machine	N. A. Ransom	449,702	Apr. 7	85	22, 23	55	19
Ironing-machine	H. E. Smith	457,676	Aug. 11	1219	313	56	769
Ironing-machine	H. E. Smith	457,734	Aug. 11	1320	343	56	790
Ironing-machine	L. H. Watson	447,987	Mar. 10	1183	{ 299 300 }	54	1348
Ironing-machine	L. H. Watson	448,898	Mar. 24	2655	666	54	1648
Ironing-machine	L. H. Watson	454,786	June 23	2437	{ 626 627 }	55	1635
Ironing-support or seam-pressing frame	M. A. Turley	452,587	May 19	1850	465	55	939
Ironing-table	E. M. Everts	452,427	May 19	1593	395	55	893
Ironing-table	S. H. Haines	464,458	Dec. 1	690	169	57	1266
Ironing-table	W. E. Herrick	456,270	July 21	1528	406	56	309
Ironing-table	H. M. Landers	452,675	May 19	1987	498	55	966
Ironing-table	W. G. Lindsay	457,742	Aug. 11	1332	346	56	794
Ironing-table	W. G. Lindsay	459,009	Sept. 8	719	176	56	1214
Ironing-table	W. G. Lindsay	459,124	Sept. 8	916	220	56	1251
Ironing-table	L. W. Miller	448,661	Mar. 24	2279	571	54	1577
Ironing-table	E. W. Nothstine	446,977	Feb. 24	2404	598	54	1007
Ironing-table	G. R. Richardson	446,928	Feb. 24	2330	578	54	993
Ironing table and rack	J. S. Cole	457,704	Aug. 11	1260	{ 325 326 }	56	777
Irrigating. Agricultural implement for	S. S. Black	445,510	Jan. 27	2418	631	54	496
Irrigating apparatus	D. W. Copeland	444,564	Jan. 13	925	241	54	191
Irrigator. Lawn or orchard	W. A. Russell	465,207	Dec. 15	1908	484	57	1516
Isoengenol. Making	G. de Laire	457,863	Aug. 18	1532	.....	56	838
Isoengenol. Making compounds of	G. de Laire	457,864	Aug. 18	1533	.....	56	838
Ivory. Artificial	G. W. Tooker	452,869	May 26	2294	.....	55	1034
Ivory. Manufacturing artificial	A. and S. de Pont	444,775	Jan. 13	1248	.....	54	252
Jack:							
See Boot-jack. Pegging-jack.							
Carriage-jack. Saddle-jack.							
Floor-jack. Shoe-maker's jack.							
Lasting-jack. Sole-machine jack.							
Lifting-jack. Truck-jack.							
Painter's jack. Wagon-jack.							
Jack	W. Jackson	449,937	Apr. 7	436	109	55	85
Jack	E. Prescott	444,849	Jan. 20	1365	353	54	283
Jack for making garment-patterns	E. A. Berry	447,554	Mar. 3	469	115	54	1206
Jail	C. H. Sparks	455,128	June 30	3074	{ 782 783 }	55	1762
Jambs. Cushioning and padding for	H. W. French	455,791	July 14	809	211	56	165
Japanned ware. Oven for baking	J. W. Anderson	459,432	Sept. 15	1403	350	56	1355
Jar:							
See Butter-jar. Preserve-jar.							
Drill-jar.							
Jar-cover	R. G. Burlingame	445,921	Feb. 3	661	161	54	642
Jar cover and clamp	F. H. Palmer	462,154	Oct. 27	2601	647	57	520
Jar holder. Fruit-	O. R. Cooke	454,396	June 16	1819	475	55	1510
Jar holder. Fruit-	H. A. Post	446,190	Feb. 10	1122	295	54	734
Jar lifter. Fruit-	L. B. Kohn	463,811	Nov. 24	2529	660	57	1064
Jar lifter. Preserve-	R. Miller	462,361	Nov. 3	233	57	57	595
Jelly-extractor	R. Smith	461,372	Oct. 13	1297	328	57	258
Jetty	A. Kirk	455,216	June 30	3224	819	55	1791
Jewel-case	H. Grohbrugge	445,002	Jan. 20	1656	424	54	340
Jeweler's clamp	E. N. Parker	450,474	Apr. 14	1257	307	55	246
Jeweler's clamp	A. L. Scudder	456,164	July 21	1360	361	56	278
Jeweler's drill	L. and F. Claxton	460,713	Oct. 6	294	72	57	58
Jeweler's forceps	D. Mendelson	459,641	Sept. 15	1751	440	56	1419
Jewelers' lathe-chucks. Attachment for	S. C. Wilcox	460,077	Sept. 22	2413	604	56	1532
Jeweler's stock	G. E. A. Knight	450,412	Apr. 14	1169	285	55	230
Jewelers' stock. Tool for cutting	M. Eisler	463,497	Nov. 17	2022	530	57	960
Jeweler's work-clamp	W. B. Fish	456,891	July 28	2561	673	56	510
Jewelry	L. J. Roehr	444,673	Jan. 13	1085	281	54	232
Jewelry	J. Rothschild	451,661	May 5	334	82	55	642
Jewelry. Manufacture of plated stock for	J. S. Palmer	456,314	July 21	1598	423	56	322
Jewelry, &c. Link for	H. U. Wilson	462,916	Nov. 10	1110	289	57	774
Jewelry. Swivel-joint for	B. A. Ballou	461,564	Oct. 20	1666	407	57	334
Jewelry. Top setting for	J. Bonner	464,810	Dec. 8	1243	311	57	1381
Jigger	T. Rowe	458,069	Aug. 18	1865	486	56	902
Jockey-stick	P. Kahler	453,370	June 2	294	77	55	1202
Jockey-stick	E. N. Rittase	453,210	June 2	46	13	55	1127
Joint:							
See Belting-joint. Pipe-joint.							
Caliper-joint. Rail-joint.							
Carriage-top joint. Railway-joint.							
Electric-conductor joint. Railway-rail joint.							
Forceps-joint. Swivel-joint.							
Friction-joint. Telescopic joint.							
Insulating swing-joint. Tramway-rail joint.							
Truss-joint.							
Joint-contractor for metal frame-work	W. C. Westaway and L. W. Beard	454,691	June 23	2298	589	55	1607

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr' ed	Vol.	Page
Joint for mechanical elements	G. S. Heath	445,401	Jan. 27	2262	587	54	467
Joists of buildings or other structures. Brace and support for	W. Paine, Sr	457,664	Aug. 11	1200	308	56	765
Jordan engine for grinding pulp	E. W. Barton	444,644	Jan. 13	1034	269	54	213
Journal-bearing	M. A. Andrews	448,624	Mar. 24	2226	558 559	54	1567
Journal-bearing	M. A. Andrews	448,871	Mar. 24	2615	657	54	1641
Journal-bearing	J. Appel	453,826	June 9	1010	263	55	1348
Journal-bearing	B. Beaupre	448,196	Mar. 17	1509	385	54	1424
Journal-bearing	R. Beddall	458,092	Aug. 18	1901	494	56	909
Journal-bearing	M. Daley	450,004	Apr. 7	531	132	55	103
Journal-bearing	I. Hazelton	449,935	Apr. 7	434	108	55	85
Journal-bearing	M. N. Lovell	447,492	Mar. 3	382	93	54	1189
Journal-bearing	D. D. Mangum	452,646	May 19	1945	488	55	958
Journal-bearing	H. H. Thorp	449,837	Apr. 7	300	78	55	59
Journal-bearing. Adjustable	J. B. Cornwall	457,302	Aug. 4	599	157	56	644
Journal-bearing. Anti-friction	M. A. Andrews	449,893	Apr. 7	370	94	55	73
Journal-bearing. Cage for	E. W. Cooke	458,520	Aug. 25	2609	635	56	1049
Journal-bearing. Composition for	P. H. Holmes	454,351	June 16	1751		55	1499
Journal-box	O. S. Hawyer	458,317	Aug. 25	2274	556	56	985
Journal-box	W. S. Sharpneck	444,509	Jan. 13	838	217 218	54	175
Journal-box	J. T. Smith	451,007	Apr. 21	2124	524	55	427
Journal-box. Automatically-compensating	K. A. Johansson	416,384	Feb. 10	1444	355	54	799
Journal-box lubricator	J. J. White	458,816	Sept. 1	411	98	56	1144
Journal-box. Sectional	C. M. Conradson	459,627	Sept. 15	1726	433	56	1414
Journal-box. Self-oiling	H. W. Hill	453,836	June 9	1022	266	55	1350
Journal-boxes. Die for forming	E. W. Mackenzie-Hughes	451,052	Apr. 28	2188	540	55	448
Journal-boxes. Dust and lubricant guard for	W. O. Dunbar	448,211	Mar. 17	1532	392	54	1428
Journal-boxes. Oil-cup attachment for	G. B. Woodmanancy	459,129	Sept. 8	922	222	56	1252
Journal-lubricator	B. V. Hubbard	452,477	May 19	1688	425	55	908
Journal. Self-lubricating	J. Farley	459,628	Sept. 15	1727	433	56	1414
Journals. Oil-feeding device for	W. and G. Thomson	459,084	Sept. 8	842	204	56	1235
Jug-tops. Manufacture of	H. Wright	447,502	Mar. 3	393	96	54	1192
Juice-extractor	G. Castaños and G. L. de Lara	452,213	May 12	1242	313	55	816
Juice-extractor	H. E. Davidson	455,938	July 14	1028	269	56	205
Jute bagging. Making	B. and A. Gratz. (Reissue)	11,205	Dec. 1	735		57	1275
Kaolins and clays to their component oxides. Reducing	P. A. Emanuel	455,611	July 7	507		56	98
Keel-block	W. H. Carr	464,921	Dec. 8	1393	351	57	1410
Keg. Knockdown	L. M. Reed	465,291	Dec. 15	2044	522	57	1542
Kegs. Chime-strengtheners for	P. J. Batchelor	458,935	Sept. 1	606	149	56	1183
Kerosene-burner	A. M. P. Hervy	458,901	Sept. 1	555	135	56	1171
Kettle and steamer. Sectional odorless	C. S. Dunham	450,328	Apr. 14	1029	254	55	204
Kettle-cover	O. E. Harmon	450,231	Apr. 14	880	219	55	176
Kettle ear and cover	M. and M. Griswold, Jr	447,821	Mar. 10	899	224	54	1295
Kettle for melting gums	D. T. Crockett	463,828	Nov. 24	2556	666	57	1069
Kettle-filter	C. Shefferd	456,662	July 28	2177	577	56	441
Key:							
See Clock-key. Telegraph-key.							
Musical-instrument key. Watch-key.							
Key	P. England	447,637	Mar. 3	593	146	54	1229
Key	H. E. Russell, Jr	450,340	Apr. 14	1057	259	55	209
Key-board instrument. Transposing	A. Holmstrom	446,289	Feb. 10	1299	318	54	770
Key-board mortises. Bushing	A. Newell	446,463	Feb. 17	1585	389	54	840
Key-board. Transposing	J. M. Gilbert	447,641	Mar. 3	599	147 148	54	1231
Key-board. Transposing	A. Marcy	461,616	Oct. 20	1747	430 431	57	349
Key-bottom support	A. H. Hastings	448,033	Mar. 10	1253	319	54	1363
Key-fastener	A. W. Bartholomew	454,449	June 23	1909	498	55	1536
Key-fastener	W. Bishman	454,419	June 16	1866	488	55	1520
Key-fastener	J. M. Farmer	452,779	May 26	2157	540	55	1007
Key-fastener	J. Ford	450,407	Apr. 14	1164	264	55	220
Key-fastener	E. Tupper	462,750	Nov. 10	833	219	57	721
Key-gage	M. Jacobs	466,044	Dec. 29	3287	838	57	1800
Key-holder	J. Schlutter	455,060	June 30	2960	753	55	1740
Key-hole guard	H. Baluss	462,525	Nov. 3	477	116	57	642
Key-hole guard	L. Gaddis	454,789	June 23	2441	627	55	1636
Key-hole guard	H. G. H. Reed	449,917	Apr. 7	410	103	55	80
Key-hook	R. Spierling	448,381	Mar. 17	1829	461	54	1485
Key-racks, &c. Locking device for	M. T. and J. C. Pedigo	465,413	Dec. 15	2246	576	57	1581
Key-ring	L. M. Devore	461,526	Oct. 13	1207	307	57	241
Key-seat-cutting machines. Attachment for	M. Morton	453,654	June 9	752	194	55	1298
Key seating or splining gage	J. Wyke	461,995	Oct. 27	2363	585	57	475
Kiln:							
See Brick-kiln. Limekiln.							
Crucible-kiln. Pottery-kiln.							
Dry-kiln.							
Kiln	S. G. Valentine	459,799	Sept. 22	1988	500	56	1472
Kiln for drying or baking purposes	J. C. Fellner and C. Ziegler	455,191	June 30	3186	808	55	1784
Kiln for drying or baking purposes	J. C. Fellner and C. Ziegler	455,192	June 30	3188	809	55	1784
Kindergarten apparatus	G. H. Clarkson	465,834	Dec. 29	2915	746	57	1729
King-bolt	J. E. Fisher	455,449	July 7	240	61	56	49
Kitchen-cabinet	G. W. Allen and J. S. Lindsey	452,207	May 12	1236	312	55	815
Kitchen-cabinet	H. C. Armstrong, D. E. Bigelow, and G. L. Osborn	448,494	Mar. 17	2007	502	54	1518
Kitchen-cabinet	M. F. Brown and T. E. Smith	449,346	Mar. 31	3373	850	54	1791
Kitchen-cabinet	A. M. Murray	464,981	Dec. 15	1507	378	57	1442
Kitchen-cabinet	J. Pecord	456,160	July 21	1354	359	56	276
Kitchen-cabinet	J. and T. V. Rankin	446,647	Feb. 17	1862	463	54	894
Kitchen-cabinet	A. B. Tucker	465,221	Dec. 15	1929	491	57	1521
Kitchen utensil	E. E. Larkins	458,175	Aug. 25	2028	526	56	940
Kite	T. Ansboro	464,412	Dec. 1	629	154	57	1253

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g	Vol.	Page.
Kneader. Dough.....	L. Stockwell.....	453,218	June 2	57	15, 16	55	1159
Kneading-board.....	M. M. Everhard.....	445,443	Jan. 27	2318	602	54	479
Kneading-machine.....	J. M. Ruthrauff.....	461,892	Oct. 27	2197	542	57	443
Kneading-machine.....	C. Sacco.....	445,204	Jan. 27	1974	510	54	410
Kneading-machine.....	E. Viollet.....	448,826	Mar. 24	2537	636	54	1627
Kneeling-bench.....	C. Arnoldi.....	446,577	Feb. 17	1755	637	54	873
Knife:							
See Bread-knife.	Orange-knife.						
Chopping-knife.	Pocket-knife.						
Currier's knife.	Shoe-knife.						
Drawing-knife.	Surgeon's knife.						
Fruit-knife.	Table-knife.						
Gage-knife.	Tobacco-knife.						
Hay-knife.							
Knife and burglar-alarm. Combined.....	A. Iske.....	455,797	July 14	821	214	56	167
Knife and pencil sharpener.....	J. H. West.....	445,212	Jan. 27	1985	512	54	412
Knife and scissors sharpener.....	A. Fritschl.....	456,618	July 28	2109	557	56	427
Knife and shears sharpener.....	J. S. Blood.....	455,917	July 14	999	259	56	300
Knife for turning irregular forms.....	T. W. Gardiner.....	454,041	June 16	1295	338	55	1411
Knife-guard.....	C. S. Wright.....	460,928	Oct. 6	606	154	57	118
Knife or scissors sharpener.....	P. W. Chamberlain.....	446,551	Feb. 17	1721	422	54	866
Knife-sharpener.....	C. K. Bradford.....	450,215	Apr. 14	839	210	55	169
Knife-sharpener.....	C. K. Bradford.....	457,965	Aug. 18	1708	447	56	871
Knife-sharpener.....	A. Dudden.....	444,522	Jan. 13	853	222	54	178
Knife-sharpener.....	F. Ecaubert.....	457,148	Aug. 4	329	85	56	596
Knife-sharpener.....	C. F., J. M., and L. C. Foster.....	462,001	Oct. 27	2369	587	57	476
Knife-sharpener.....	J. A. Peer.....	465,880	Dec. 29	2997	765	57	1745
Knife, scissors, or shears sharpener.....	G. H. Townsend.....	458,243	Aug. 25	2145	525	56	962
Knives and analogous articles. Device for sharpening.	J. A. Peer.....	466,293	Dec. 29	3672	938	57	1874
Knit belts. Joining.....	B. L. Stowe.....	446,084	Feb. 10	935	229	54	702
Knit drawers.....	H. Granz.....	464,118	Dec. 1	165	41	57	1169
Knit fabric.....	J. W. Adams.....	462,657	Nov. 3	679	172	57	682
Knit fabric.....	S. Condé.....	462,470	Nov. 3	400	98	57	626
Knit fabric and making the same.....	F. Wilcomb.....	463,561	Nov. 17	2133	563	57	981
Knit fabrics. Machine for cutting.....	H. S. Becker.....	464,952	Dec. 15	1458	367	57	1434
Knit fabrics. Manufacture of articles from cut.....	S. Borton.....	456,470	July 21	1862	491	56	371
Knit garment.....	H. C. Bobne.....	445,945	Feb. 3	700	171	54	650
Knit goods. Preparing ribbed bands for attachment to articles made from.....	S. Borton.....	456,469	July 21	1861	491	56	371
Knitted bag and making the same.....	F. Clewley.....	459,866	Sept. 22	2099	526	56	1494
Knitted drawers.....	J. Holmes.....	451,051	Apr. 28	2187	540	55	448
Knitted fabrics. Ornamenting.....	J. Cochrane, Jr.....	454,854	June 30	2562	55	1664	
Knitted fabrics. Treating tubular.....	W. A. Harder.....	448,817	Mar. 24	2523	632	54	1625
Knitted pile fabrics. Machine for producing.....	J. Booth.....	447,226	Feb. 24	2845	705	54	1089
Knitting fabrics.....	A. Boehmen.....	454,795	June 23	2454	631	55	1638
Knitting-indicator.....	P. P. Olsson.....	457,166	Aug. 4	355	91	56	601
Knitting-machine.....	J. Frelleohr and L. Tisch.....	457,265	Aug. 4	533	140	56	631
Knitting-machine.....	A. J. Gulick and W. Humphrey.....	459,827	Sept. 22	2035	510	56	1481
Knitting-machine.....	B. Holt.....	448,718	Mar. 24	2376	511	54	1596
Knitting-machine.....	B. Holt.....	448,719	Mar. 24	2379	595	54	1596
Knitting-machine.....	A. McMichael and F. B. Wildman.....	453,290	June 2	169	47	55	1180
Knitting-machine.....	P. P. Olsson.....	462,957	Nov. 10	1180	306	57	788
Knitting-machine.....	W. H. Pepper, A. T. L. Davis, and G. A. Sanders.....	461,508	Oct. 20	1575	386	57	317
Knitting-machine.....	H. C. Rightmire.....	457,868	Aug. 18	1539	400	56	829
Knitting-machine.....	L. E. Salisbury.....	455,464	July 7	259	66, 67	56	52
Knitting-machine.....	N. J. Winlund and E. McSherry.....	461,211	Oct. 13	1032	261	57	204
Knitting-machine.....	N. J. Winlund and E. McSherry.....	461,212	Oct. 13	1034	262	57	205
Knitting machine. Circular.....	J. Benner.....	456,372	July 21	1693	263	56	341
Knitting machine. Circular.....	M. Boas.....	453,059	May 26	2612	447	55	1096
Knitting machine. Circular.....	E. R. Branson.....	445,690	Feb. 3	288	448	54	569
Knitting machine. Circular.....	A. T. L. Davis.....	460,502	Sept. 29	3068	449	56	1684
Knitting machine. Circular.....	J. C. Egly.....	466,093	Dec. 29	3357	450	57	1815
Knitting machine. Circular.....	F. H. Gates.....	448,954	Mar. 24	2734	451	54	1664
Knitting machine. Circular.....	J. E. Gearhart.....	457,643	Aug. 11	1170	452	56	760
Knitting machine. Circular.....	M. Gernshym.....	462,546	Nov. 3	511	125	57	649
Knitting machine. Circular.....	H. J. Griswold.....	448,337	Mar. 17	1768	262	54	1473
Knitting machine. Circular.....	J. H. Hinchliffe.....	450,291	Apr. 14	964	263	55	192
Knitting machine. Circular.....	W. R. Johns.....	456,308	July 21	1591	240	56	321
Knitting machine. Circular.....	A. Kay.....	451,713	May 5	409	421	55	656
Knitting machine. Circular.....	F. Malsch.....	465,938	Dec. 29	3082	100	57	1762
Knitting machine. Circular.....	W. H. and G. D. Mayo.....	461,357	Oct. 13	1257	320	57	252
Knitting machine. Circular.....	W. H. and G. D. Mayo.....	461,358	Oct. 13	1264	321	57	252
Knitting machine. Circular.....	J. B. Paxton and E. I. O'Neill.....	455,052	June 30	2945	322	55	1737
Knitting machine. Circular.....	B. F. Shaw.....	460,038	Sept. 22	2348	749	56	1541

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Knitting machine. Circular.	B. F. Shaw	460,039	Sept. 22	2353	{ 589 590 }	56	1541
Knitting machine. Circular.	N. J. Winlund	451,285	Apr. 28	2572	634	55	523
Knitting machine. Circular.	N. J. Winlund	451,286	Apr. 28	2573	635	55	524
Knitting machine. Circular plush-goods.	T. H. Vorrall	459,902	Sept. 22	2166	544	56	1506
Knitting machine. Circular spring-needle.	D. F. Sullivan	459,714	Sept. 15	1855	466	56	1440
Knitting-machine clamp	S. Thurstensen	456,710	July 28	2255	597	56	456
Knitting-machine loop-holding mechanism	H. Brinton	445,494	Jan. 27	2391	622	54	492
Knitting-machine needle.	G. H. Adams	461,066	Oct. 13	804	205	57	162
Knitting-machine stop mechanism.	F. Crawford	445,465	Jan. 27	2348	610	54	484
Knitting-machine stop-motion	D. C. Bellis	455,786	July 14	797	209	56	162
Knitting-machine stop-motion	F. Wilcomb	463,562	Nov. 17	2135	564	57	981
Knitting-machine stopping mechanism	C. M. Musgrove	449,910	Apr. 7	399	100	55	78
Knitting machine. Straight.	P. P. Olsson	452,018	May 12	890	{ 228 229 }	55	755
Knitting machine. Straight.	F. Wilcomb	463,560	Nov. 17	2130	{ 562 563 }	57	980
Knitting machine. Straight.	C. H. Young	452,559	May 19	1808	455	55	931
Knitting-machine striping mechanism	J. Bradley	448,007	Mar. 10	1216	309	54	1356
Knitting-machine thickening-thread attachment	W. Pearson	462,155	Oct. 27	2602	648	57	520
Knitting-machine thickening-thread mechanism	H. Swinglehurst	459,260	Sept. 8	1115	{ 272 273 }	56	1289
Knitting-machine thread-guide	W. Roberts	464,995	Dec. 15	1556	396	57	1452
Knitting-machine. Traverse-warp	T. J., and J. W. Kiddier	462,878	Nov. 10	1049	272	57	763
Knitting-machine trimmer	W. E. Cahill	445,423	Jan. 27	2294	595	54	474
Knitting machines. Automatic circular.	F. L. Dow	465,842	Dec. 29	2925	{ 748 749 }	57	1732
Knitting-machines. Automatic stop-motion for	C. E. Sharp	459,659	Sept. 15	1776	447	56	1424
Knitting-machines. Automatic take-up for rotary	W. Hose and H. Curtin	463,788	Nov. 24	2493	651	57	1057
Knitting machines. Cylinder for	A. McMichael	456,496	July 21	1899	502	56	379
Knitting-machines. Device for regulating the yarn-tensions in	H. P. Ballou	455,896	July 14	965	252	56	193
Knitting machines. Feeding mechanism for circular.	L. C. Huse	455,018	June 30	2882	732	55	1725
Knitting-machines. Loop-holder mechanism for	S. S. Cook	464,313	Dec. 1	488	117	57	1227
Knitting-machines. Needle-cylinder for	E. R. Branson	454,163	June 16	1475	387	55	1445
Knitting-machines. Presser-wheel for	F. L. Wiggin	464,907	Dec. 8	1377	{ 346 347 }	57	1407
Knitting machines. Sinkers-spring for straight.	D. Hurley	465,374	Dec. 15	2191	561	57	1570
Knitting-machines. Splicing thread-feed mechanism for	W. H. Pepper and A. T. L. Davis	465,881	Dec. 29	2999	{ 765 766 }	57	1745
Knitting-machines. Stop-motion for	A. Bochen	455,699	July 7	647	171	56	125
Knitting machines. Stop-motion for circular	H. S. Townsend and G. A. Schneebeli	451,628	May 5	283	68, 69	55	632
Knitting-machines, &c. Stopping mechanism for	A. T. L. Davis	457,307	Aug. 4	606	159	56	645
Knitting-machines. Striping mechanism for	W. H. Pepper and A. T. L. Davis	464,586	Dec. 8	884	{ 218 219 }	57	1313
Knitting machines. Stripping mechanism for circular.	S. Wullschleger	463,432	Nov. 17	1933	505	57	941
Knitting machines. Supporting-spring, &c., for straight.	E. Tiffany	457,061	Aug. 4	206	50	56	572
Knitting-machines. Take-up device for	J. Anreden	451,446	May 5	2	1	55	579
Knitting machines. Thickening mechanism for circular.	J. Bettney	451,747	May 5	469	116	55	667
Knitting-machines. Thickening thread-feed mechanism for	W. H. Stewart	451,703	May 5	396	96	55	654
Knitting-machines. Work-transferring mechanism for	G. D. Mayo	453,494	June 2	502	129	55	1242
Knitting-needle	J. B. Shaw	453,513	June 2	528	136	55	1247
Knitting-wheel blade	R. W. Gormly	451,376	Apr. 28	2693	668	55	546
Knob	H. A. Matthews	449,908	Apr. 7	397	100	55	78
Knob alarm attachment. Door.	T. Braden	445,218	Jan. 27	2000	515	54	414
Knob attachment	T. D. Davis	461,975	Oct. 27	2332	578	57	469
Knob attachment	C. L. Fitch	456,807	July 28	2420	638	56	486
Knob attachment	F. M. Kiader	459,444	Sept. 15	1420	356	56	1358
Knob attachment	W. L. Morton	451,503	May 5	93	23	55	597
Knob-back. Metal.	D. M. Ireland	455,509	July 7	330	85	56	66
Knob. Door.	H. F. Keil	447,613	Mar. 3	556	138	54	1222
Knob. Door.	W. H. Taylor	450,115	Apr. 7	689	{ 174 175 }	55	135
Knob. Door.	J. Trickle	448,737	Mar. 24	2410	603	54	1602
Knob. Door.	E. B. Owen	448,454	Mar. 17	1945	490	54	1506
Knob for carriages, &c. Headed.	C. O. and L. F. Upham	454,549	June 23	2060	533	55	1564
Knob. Metal.	A. A. Page	465,286	Dec. 15	2038	520	57	1541
Knob-molds. Manufacture of	H. Headley	455,400	July 7	162	41	56	35
Knob or handle. Seamless sheet-metal	S. R. and F. A. Wilmot	447,265	Feb. 24	2914	724	54	1104
Knob or handle shank.	J. L. Gallagher	444,524	Jan. 13	855	223	54	179
Knob-shank	C. M. Burgess	444,557	Jan. 13	911	237	54	189
Knob. Sheet-metal.	E. L. Rogers	463,780	Nov. 24	2484	648	57	1055
Knob. Sheet-metal.	W. A. Turner	461,175	Oct. 13	965	248	57	192
Knob-spindle fastener.	C. F. Garland	460,789	Oct. 6	407	99	57	80
Knobs. Attaching	F. M. Stevens	453,869	June 9	1061	277	55	1358
Knobs. Attaching	F. M. Stevens	453,870	June 9	1063	278	55	1358
Knobs or handles. Attaching	S. R. and F. A. Wilmot	447,266	Feb. 24	2916	{ 725 726 }	54	1104
Knobs. Sheet-metal blank for	W. A. Turner	458,839	Sept. 1	453	109	56	1152
Knockdown box	J. A. Parsons	461,391	Oct. 13	1329	335	57	265
Knockdown chair	J. A. Judd	458,808	Sept. 1	388	93, 94	56	1140
Knockdown closet	H. Patberg	454,123	June 16	1412	369	55	1433
Knockdown table.	E. G. Asmus	456,752	July 28	2341	{ 616 617 }	56	471
Knof-tying mechanism	M. L. Nichols	453,267	June 2	136	37, 38	55	1173
Knooting mechanism	J. Hornsby, J. Innocent, I. Trolley, and J. H. Smith.	465,610	Dec. 22	2575	655	57	1653
Knurling-tool	H. F. Cook	454,788	June 23	2440	627	55	1635
Kraut-cutter	W. H. Ward	465,007	Dec. 15	1574	401	57	1456

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				Spec.	Dr & C.	Vol.	Page.
Label and twine cabinet	T. M. Haynes and W. H. Gunning	462,549	Nov. 3	517	126	57	650
Label-case	R. M. Floyd	457,581	Aug. 11	1079	276	56	743
Label-holder	J. H. Elson	461,702	Oct. 20	1892	468	57	376
Label-holders. Spring-clamp for	S. M. Friede	462,123	Oct. 27	2560	635	57	512
Label-holding frame	M. Abbey	462,071	Oct. 27	2467	612	57	485
Label-rack	F. X. Le Febvre	453,149	May 26	2761	695	55	1124
Labeling-machine	S. L. Salomon	447,907	Mar. 10	1047	262	54	1324
Labeling machine. Can	H. Albert	445,418	Jan. 27	2253	593	54	472
Labeling machine. Can	R. L. and H. F. Wight	463,607	Nov. 17	2214	{ 583 584 }	57	996
Lace fastener. Shoe	C. Babcock	460,816	Oct. 6	440	111	57	88
Lace fastener. Shoe	W. Wellock	454,314	June 16	1695	443	55	1488
Lace-fastening	W. H. Hayden	452,753	May 19	2120	533	55	991
Lacing-cords on shoes, &c. Fastener for securing the ends of	G. Troxler, Jr.	459,160	Sept. 8	968	235	56	1261
Lacing-hook	I. F. Peck	449,449	Mar. 31	3562	897	54	1827
Lacing-hooks. Machine for setting	W. Halkyard	454,114	June 16	1399	366	55	1430
Lacing-stud	G. C. Hill	464,460	Dec. 1	693	170	57	1267
Lacing-stud-setting machine	E. D. Welton	455,552	July 7	406	{ 107 108 109 110 }	56	79
Lacing-studs. Machine for making	F. Egge	462,243	Nov. 3	34	{ 8 9 10 }	57	558
Lacing-studs. Machine for setting	G. O. Schneller	459,207	Sept. 8	1039	{ 253 254 }	56	1274
Lacing-studs. Mold for covering the heads of	F. Egge	456,303	July 21	1585	419	56	320
Ladder	B. G. Bemis and O. D. Cummings	452,826	May 26	2228	559	55	1022
Ladder	G. T. Campbell	451,893	May 5	676	171	55	707
Ladder	W. M. Dollar	445,980	Feb. 10	756	185	54	670
Ladder	T. F. Mark	451,158	Apr. 28	2347	583	55	481
Ladder	J. W. Marshall	462,497	Nov. 3	433	106	57	633
Ladder	G. E. Nowland	445,453	Jan. 27	2335	607	54	481
Ladder and chair. Combined step	K. P. Rawson	448,367	Mar. 17	1807	{ 455 456 }	54	1480
Ladder and elevator. Combined aerial	D. L. Osborn	445,193	Jan. 27	1959	{ 506 507 }	54	406
Ladder and truck. Fire	L. Harris	455,485	July 7	294	74	56	59
Ladder. Collapsible	W. W. Harris	449,159	Mar. 31	3049	771	54	1733
Ladder. Extension	G. Albee	460,419	Sept. 29	2939	735	56	1660
Ladder. Extension	W. E. Brown	454,454	June 23	1916	500	55	1538
Ladder. Extension	D. H. Crews	462,240	Nov. 3	30	7	57	557
Ladder. Extension	J. E. Gillespie	456,651	July 28	2160	572	56	438
Ladder. Extension	W. W. Norman	463,868	Nov. 24	2633	686	57	1083
Ladder. Extension	I. H. Odum	461,366	Oct. 13	1285	325	57	256
Ladder. Extension	J. H. Whittington	457,805	Aug. 18	1437	372	56	821
Ladder. Extension fire	J. L. Crafts	451,708	May 5	402	98	55	655
Ladder. Extension fire	L. Dederick	444,820	Jan. 20	1315	{ 341 342 }	54	274
Ladder. Fire	H. Goosmann	444,632	Jan. 13	1013	264	54	209
Ladder. Fire	C. H. Ives	447,429	Mar. 3	256	64	54	1166
Ladder. Fireman's	L. De Loria	444,878	Jan. 20	1447	376	54	299
Ladder. Folding	J. A. Dahumi	446,433	Feb. 17	1538	378	54	830
Ladder. Folding	W. M. Penry	461,984	Oct. 27	2346	582	57	472
Ladder. Folding step	N. Goldberg	444,276	Jan. 6	468	119	54	93
Ladder for firemen and others. Aerial	D. L. Osborn	446,560	Feb. 17	1735	426	54	869
Ladder. Fruit-picker's	W. Arnold	445,487	Jan. 27	2384	620	54	490
Ladder or fire-escape. Folding	W. Heister	453,929	June 9	1142	298	55	1373
Ladder. Scuttle	R. M. Powers	453,294	June 2	175	48	55	1181
Ladder. Sectional	F. C. Lovejoy	461,521	Oct. 20	1604	392	57	332
Ladder. Self-raising	B. H. Burling	449,999	Apr. 7	526	131	55	102
Ladder. Step	A. A. Brandenburg	448,190	Mar. 10	1485	379	54	1410
Ladder. Step	M. Croissant	464,495	Dec. 8	750	183	57	1287
Ladder. Step	A. Dormitzer	449,846	Apr. 7	310	80	55	61
Ladder. Step	J. C. Gardner	448,648	Mar. 24	2260	567	54	1573
Ladder. Step	N. Goldberg	466,096	Dec. 29	3362	858	57	1815
Ladder. Step	A. Johnson	458,461	Aug. 25	2503	{ 608 609 }	56	1028
Ladder. Step	H. A. Kinser	453,193	June 2	22	7	55	1153
Ladder. Step	A. E. Parr and W. C. Edwards	455,973	July 14	1081	283	56	214
Ladder-support	L. Coburn and W. J. Sumner	463,218	Nov. 17	1586	413	57	875
Ladder. Telescopic scaling or fire-escape	L. Smitter and P. Duhamel	445,720	Feb. 3	335	88	54	579
Ladder. Traveling step	J. E. Gordon	464,433	Dec. 1	652	160	57	1259
Ladders. Trolley-support for step	A. A. Coburn	463,217	Nov. 17	1585	412	57	875
Ladle	C. Collier	453,437	June 2	416	108	55	1225
Ladle	R. W. Grace	460,575	Oct. 6	51	12	57	12
Lamp	E. J. Bissell	455,155	June 30	3124	794	55	1771
Lamp	J. E. Bohner	461,811	Oct. 27	2072	511	57	418
Lamp	G. W. Brown and A. Taplin	466,029	Dec. 29	3261	831	57	1795
Lamp	W. P. Butler	451,753	May 5	478	{ 118 119 }	55	669
Lamp	F. S. Dellenbaugh	450,508	Apr. 14	1307	{ 320 321 }	55	258
Lamp	S. G. Dodd	458,826	Sept. 1	434	105	56	1148
Lamp	A. French	459,135	Sept. 8	927	223	56	1254
Lamp	L. Henkle	459,400	Sept. 15	1349	338	56	1345
Lamp	C. and J. Landis	450,867	Apr. 21	1900	466	55	384
Lamp	A. G. McDaniel	444,278	Jan. 6	471	120	54	93
Lamp	C. O. Pellikan	456,963	Aug. 4	64	15, 16	56	545
Lamp	C. A. Sigelen	451,338	Apr. 28	2645	654	55	537
Lamp	O. Sweeney	449,978	Apr. 7	406	124	55	96
Lamp	C. H. Van Hise	458,509	Aug. 25	2588	{ 630 631 }	56	1045
Lamp	W. A. Wright	446,400	Feb. 10	1473	361	54	804
Lamp and burner. Oil	C. M. Richmond	454,686	June 23	2293	587	55	1606

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Lamp appliance. Oil.....	F. J. Seidensticker	461,370	Oct. 13	1293	327	57	258
Lamp. Argand.....	L. J. Atwood and F. W. Tobey	448,851	Mar. 24	2583	649	54	1635
Lamp. Argand.....	L. J. Atwood and F. W. Tobey	454,247	June 16	1591	419	55	1469
Lamp. Argand.....	T. Hipwell	457,587	Aug. 11	1089	278	56	745
Lamp. Argand.....	F. Rhind	454,528	June 23	2030	526	55	1558
Lamp. Argand.....	J. H. White	444,867	Jan. 20	1432	372	54	296
Lamp. Argand.....	J. H. White	457,571	Aug. 11	1064	272	56	740
Lamp attachment. Electric-arc.....	V. Thomas	459,846	Sept. 22	2062	518	56	1487
Lamp-black. Apparatus for the manufacture of.....	R. Dreÿer	444,315	Jan. 6	523	{ 136 137 }	54	105
Lamp. Blow.....	G. E. Moody	454,139	June 16	1437	376	55	1438
Lamp bracket. Electric.....	T. C. Smith	444,466	Jan. 13	763	199	54	159
Lamp bracket. Electric.....	T. C. Smith	453,248	June 2	108	30	55	1169
Lamp brackets. Universal joint for incandescent.....	E. C. Bennett and E. C. Freeze	447,486	Mar. 3	369	91	54	1188
Lamp-burner	J. E. Bohner	456,881	July 28	2548	669	56	508
Lamp-burner	E. Dickinson	459,492	Sept. 15	1494	375	56	1372
Lamp-burner	H. L. Green	464,358	Dec. 1	557	136	57	1240
Lamp-burner	C. Pabst	462,991	Nov. 10	1226	319	57	797
Lamp-burner	F. Rhind	445,082	Jan. 20	1774	457	54	362
Lamp-burner	C. M. Richmond	444,854	Jan. 20	1409	366	54	291
Lamp-burner	I. F. Sterling	455,584	July 7	466	121	56	90
Lamp-burner	S. G. Stoddard	451,140	Apr. 28	2318	575	55	475
Lamp-burner attachment	G. S. Gates	451,555	May 5	167	40	55	611
Lamp-burner rest	J. K. Webster	458,957	Sept. 1	635	156	56	1189
Lamp-chimney attachment	M. S. French	461,749	Oct. 20	1958	486	57	388
Lamp-chimney cleaner	J. A. Messina and C. S. B. Moffat	453,316	June 2	212	56	55	1187
Lamp-chimney lifter	C. A. Benbow and A. R. Moseley	464,911	Dec. 8	1383	348	57	1408
Lamp-chimney. Sectional	W. H. Vaddell	444,864	Jan. 20	1427	371	54	295
Lamp-chimneys. Heating attachment for	W. F. Finger	448,950	Mar. 24	2729	688	54	1664
Lamp-chimneys. Heating attachment for	G. L. Thompson	460,693	Oct. 6	266	65	57	53
Lamp controller. Incandescent-electric.....	J. J. Fanning	454,038	June 16	1292	337	55	1410
Lamp cover and switch. Electric.....	E. T. Mueller	462,571	Nov. 3	555	135	57	657
Lamp cover. Incandescent.....	E. T. Mueller	448,741	Mar. 24	2415	604	54	1603
Lamp crane. Electric.....	E. Cardarelli	452,211	May 12	1240	313	55	816
Lamp cut-out and system	E. Thomson	454,782	June 23	2433	625	55	1634
Lamp cut-out. Electric.....	W. F. Smith	456,327	July 21	1622	429	56	327
Lamp cut-out. Incandescent.....	T. D. Bottome	458,653	Sept. 1	169	39	56	1097
Lamp cut-out. Incandescent.....	H. C. Wirt	465,508	Dec. 22	2404	615	57	1620
Lamp drop. Electric.....	W. E. Dow	451,996	May 12	858	219	55	749
Lamp. Duplex-arc.....	E. P. Clark	463,595	Nov. 17	2194	578	57	992
Lamp. Duplex-arc.....	B. Ward	458,719	Sept. 1	262	62, 63	56	1115
Lamp. Electric.....	D. Tommasi	459,872	Sept. 22	2108	530	56	1496
Lamp. Electric-arc.....	C. R. Arnold	455,087	June 30	3007	{ 764 765 }	55	1750
Lamp. Electric-arc.....	L. C. Atwood	448,107	Mar. 10	1354	347	54	1384
Lamp. Electric-arc.....	H. P. Ball	465,514	Dec. 22	2413	617	57	1623
Lamp. Electric-arc.....	F. Buchanan	452,633	May 19	1924	483	55	954
Lamp. Electric-arc.....	L. H. Buchanan	447,746	Mar. 3	753	188	54	1260
Lamp. Electric-arc.....	F. H. Carpenter	462,660	Nov. 3	684	173	57	682
Lamp. Electric-arc.....	F. H. Carpenter	462,661	Nov. 3	685	173	57	683
Lamp. Electric-arc.....	P. Clarke	454,253	June 16	1601	421	55	1470
Lamp. Electric-arc.....	T. Conroy	462,624	Nov. 3	635	160	57	473
Lamp. Electric-arc.....	J. W. Easton	445,546	Feb. 3	27	7	54	516
Lamp. Electric-arc.....	J. W. Easton	448,418	Mar. 17	1890	475	54	1497
Lamp. Electric-arc.....	W. H. Elkins	444,977	Jan. 20	1618	414	54	331
Lamp. Electric-arc.....	J. W. Ellis	453,693	June 9	814	208	55	1310
Lamp. Electric-arc.....	H. C. Forgasen	447,767	Mar. 10	800	199	54	1277
Lamp. Electric-arc.....	N. M. Garland	458,386	Aug. 25	2392	583	56	1007
Lamp. Electric-arc.....	N. M. Garland	458,387	Aug. 25	2394	584	56	1008
Lamp. Electric-arc.....	N. M. Garland	458,388	Aug. 25	2395	584	56	1008
Lamp. Electric-arc.....	N. M. Garland	458,389	Aug. 25	2397	584	56	1009
Lamp. Electric-arc.....	J. E. Gaston	463,035	Nov. 10	1285	{ 333 334 }	57	809
Lamp. Electric-arc.....	J. E. Giles	462,698	Nov. 10	762	198	57	706
Lamp. Electric-arc.....	J. A. Hayes	445,176	Jan. 27	1933	{ 499 500 }	54	401
Lamp. Electric-arc.....	W. S. Hays	463,720	Nov. 24	2407	631	57	1040
Lamp. Electric-arc.....	W. Hochhausen	453,583	June 2	630	{ 161 162 }	55	1266
Lamp. Electric-arc.....	W. Jandus	463,154	Nov. 17	1486	386	57	856
Lamp. Electric-arc.....	E. R. Knowles	459,510	Sept. 15	1521	{ 380 381 }	56	1377
Lamp. Electric-arc.....	K. Kurmayer	448,351	Mar. 17	1786	452	54	1477
Lamp. Electric-arc.....	H. Lemp and M. J. Wightman	454,485	June 23	1961	{ 511 512 }	55	1546
Lamp. Electric-arc.....	H. W. Libbey	460,587	Oct. 6	70	19	57	15
Lamp. Electric-arc.....	M. S. Logan and J. H. Barley	459,757	Sept. 22	1926	485	56	1460
Lamp. Electric-arc.....	R. H. Mather	446,108	Feb. 10	973	{ 239 240 }	54	709
Lamp. Electric-arc.....	J. E. McAuley	454,443	June 16	1899	494	55	1526
Lamp. Electric-arc.....	J. A. Mosher	446,459	Feb. 17	1581	388	54	839
Lamp. Electric-arc.....	W. A. Nicholson	464,132	Dec. 1	183	45	57	1172
Lamp. Electric-arc.....	J. W. T. Olan	455,576	July 7	452	119	56	87
Lamp. Electric-arc.....	A. W. Reppy	444,104	Jan. 6	194	48	54	40
Lamp. Electric-arc.....	S. W. Rushmore	454,294	June 16	1666	437	55	1482
Lamp. Electric-arc.....	S. W. Rushmore	454,295	June 16	1668	438	55	1483
Lamp. Electric-arc.....	E. C. Russell	462,673	Nov. 3	708	182	57	687
Lamp. Electric-arc.....	H. W. Sander	458,500	Aug. 25	2572	626	56	1041
Lamp. Electric-arc.....	P. L. Sautter	456,598	July 28	2064	546	56	419
Lamp. Electric-arc.....	R. Scheffbauer	451,309	Apr. 28	2602	642	55	529
Lamp. Electric-arc.....	C. J. Schwarze	446,297	Feb. 10	1322	322	54	773
Lamp. Electric-arc.....	J. J. Skinner	444,154	Jan. 6	287	69	54	59
Lamp. Electric-arc.....	E. Thomson	444,925	Jan. 20	1533	394	54	315
Lamp. Electric-arc.....	E. Thomson	447,383	Mar. 3	172	47	54	1150

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Lamp. Electric-arc.....	E. Thomson	458,025	Aug. 18	1860	470	56	888
Lamp. Electric-arc.....	E. Thomson	461,144	Oct. 13	907	235	57	182
Lamp. Electric-arc.....	E. Thomson and E. W. Rice, Jr.	449,715	Apr. 7	108	28	55	23
Lamp. Electric-arc.....	W. A. Turbayne	458,987	Sept. 1	684	167	56	1199
Lamp. Electric-arc.....	H. C. Waldecker	465,685	Dec. 22	2630	686	57	1675
Lamp. Electric-arc.....	B. B. Ward	444,472	Jan. 13	769	200	54	161
Lamp. Electric-arc.....	B. B. Ward	444,473	Jan. 13	771	201	54	161
Lamp. Electric-arc.....	B. B. Ward	458,776	Sept. 1	523	127	56	1165
Lamp. Electric-arc.....	J. H. R. Ward	449,236	Mar. 31	3167	798	54	1755
Lamp. Electric-arc.....	J. H. R. Ward	449,237	Mar. 31	3168	798	54	1756
Lamp. Electric-arc.....	J. H. R. Ward	449,238	Mar. 31	3171	800		
Lamp. Electric-arc.....	J. H. R. Ward	451,189	Apr. 28	2413	596	55	492
Lamp. Electric-arc.....	A. G. Waterhouse	451,250	Apr. 28	2512	597		
Lamp. Electric-arc.....	A. G. Waterhouse	464,682	Dec. 8	1040	620	55	512
Lamp. Electric-arc.....	X. Wertz	457,141	Aug. 4	319	260		
Lamp. Electric-arc.....	O. C. White	445,724	Feb. 3	341	261	57	1343
Lamp. Electric-arc.....	A. Wirsching and R. Scheffbauer ..	461,659	Oct. 20	1817	459		
Lamp. Electric-arc.....	C. G. Young	451,101	Apr. 28	2250	440	55	462
Lamp. Electric incandescent.	N. Tesla	455,069	June 30	2984	557		
Lamp electrode. Arc.....	H. W. Libbey	460,640	Oct. 6	237	558	55	1746
Lamp electrode. Arc.....	W. S. Richards	458,376	Aug. 25	2377	59	57	48
Lamp electrode. Arc.....	I. L. Roberts	460,596	Oct. 6	80	580	56	1004
Lamp electrode. Arc.....	I. L. Roberts	460,597	Oct. 6	81	22	57	18
Lamp-extinguisher.....	J. B. Greenhalgh	456,814	July 28	2432	81	56	48
Lamp-extinguisher.....	A. G. Hovde	450,410	Apr. 14	1167	641	56	148
Lamp-extinguishing device	D. Murguletz	446,361	Feb. 10	1409	284	54	792
Lamp filament. Incandescent.	L. K. Böhm	464,719	Dec. 8	1110	345		
Lamp filament. Incandescent.	T. A. Edison	454,262	June 16	1617	346	57	1355
Lamp filament. Incandescent.	J. T. Marshall	461,797	Oct. 20	2047	424	55	1473
Lamp filament. Incandescent-electric.	G. Erlwein	448,915	Mar. 24	2678	504	57	405
Lamp filament. Incandescent-electric.	G. Erlwein	448,916	Mar. 24	2679	674	54	1654
Lamp filament. Incandescent-electric.	G. Erlwein	455,187	June 30	3181	674	54	1654
Lamp filament. Incandescent-electric.	G. Erlwein and F. G. A. Heller ..	448,914	Mar. 24	2678	806	55	1783
Lamp filament. Incandescent-electric.	F. G. A. Heller	448,920	Mar. 24	2683	673	54	1654
Lamp-filling indicator.....	L. N. Lusk	445,565	Feb. 3	70	675	54	1655
Lamp-fixture.....	J. E. Bohner	456,880	July 28	2547	17	54	525
Lamp fixture. Incandescent-electric.	G. E. Villaret and V. E. Rondel ..	465,684	Dec. 22	2669	668	56	508
Lamp fixture. Suspension.....	J. E. Bohner	454,420	June 16	1867	687	57	1675
Lamp for effecting the ignition of vapor in gas or other motors.	E. Capitaine	448,293	Mar. 17	1689	488	55	1520
Lamp for electric-railway cars.....	C. G. Smith and L. Pfingst	448,865	Mar. 24	2610	427	54	1458
Lamp for lighting and heating purposes. Self-generating steam-spray	G. Rose	453,663	June 9	762	655	54	1640
Lamp for lighting, heating, and signaling purposes. Spray.	G. Rose	452,390	May 19	1532	197	55	1300
Lamp for street lighting. Electric	H. H. Carpenter	450,000	Apr. 7	527	380	55	881
Lamp. Gas.....	H. W. and A. F. Cole	465,350	Dec. 15	2152	131	55	102
Lamp. Gas.....	D. R. Gardner	450,931	Apr. 21	1984	550	57	1562
Lamp globe-holder. Electric-arc.....	H. A. Foster	465,470	Dec. 22	2332	487	55	401
Lamp guard. Incandescent.....	H. H. Hipwell	459,749	Sept. 22	1916	598	57	1608
Lamp-hanger.....	M. McRoberts	444,920	Jan. 20	1527	483	56	1458
Lamp hanger. Electric.....	P. S. Bates	451,149	Apr. 28	2334	393	54	314
Lamp hanger. Electric.....	H. A. Foster	449,153	Mar. 31	3040	579		
Lamp hanger. Incandescent.....	P. J. Chassagne	459,266	Sept. 8	1127	580	55	478
Lamp hanger. Incandescent.....	J. A. Matteson	452,799	May 26	2189	768	54	1732
Lamp hanger. Incandescent.....	J. A. Matteson	460,178	Sept. 29	2574	274	56	1292
Lamp-hanging device. Arc.....	W. K. Howard, Jr.	465,665	Dec. 22	2661	549	55	1014
Lamp holder. Portable electric.....	J. Baker and H. S. Grabam	465,039	Dec. 15	1628	642	56	1591
Lamp holder. Portable electric.....	W. W. Savage	452,288	May 12	1357	679	57	1670
Lamp illuminator. Electric.....	J. von der Kammer	457,830	Aug. 18	1472	414	57	1465
Lamp. Incandescent.....	E. Thomson	462,338	Nov. 3	185	338	55	839
Lamp. Incandescent.....	E. Thomson	462,339	Nov. 3	187	47	57	586
Lamp. Incandescent electric.....	T. D. Bottomo	445,688	Feb. 3	287	48	57	586
Lamp. Incandescent electric.....	T. A. Edison	454,558	June 23	2077	76	54	569
Lamp. Incandescent electric.....	T. A. Edison	462,540	Nov. 3	503	535	55	1567
Lamp. Incandescent electric.....	I. J. Flagg	452,780	May 26	2158	57	647	
Lamp. Incandescent electric.....	W. M. B. Keen and W. F. Haarmann ..	452,305	May 12	1381	540	55	1008
Lamp. Incandescent electric.....	A. L. Reinmann	460,991	Oct. 13	701	343	55	843
Lamp. Incandescent electric.....	E. P. Roberts	459,100	Sept. 8	878	211	57	143
Lamp. Incandescent electric.....	E. Thomson	444,929	Jan. 20	1540	181	56	1244
Lamp-lighter.....	J. Witzell	447,393	Mar. 3	194	395	54	316
Lamp-lighting mechanism.....	W. D. Doremus	450,483	Apr. 14	1273	50, 51	54	1155
Lamp linings. Die for forming carriage.....	F. C. Cannon	457,557	Aug. 11	1040	311	55	249
Lamp. Multiplex-arc.....	W. H. Elkins	445,136	Jan. 20	1857	267	56	736
Lamp. Oil.....	F. E. and S. Townsend.....	456,642	July 28	2143	481	54	378
Lamp. Oil-vapor.....	L. Dürr	453,440	June 2	419	567	56	434
Lamp or lantern.....	F. Dietz	451,109	Apr. 28	2262	109	55	1226
Lamp or lantern. Signal.....	L. G. Huntington and R. J. Armour ..	463,402	Nov. 17	1895	561	55	464
Lamp pencil. Arc.....	I. L. Roberts	460,595	Oct. 6	79	494	57	933
Lamp. Pocket.....	S. N. Ayres	462,026	Oct. 27	2498	79	57	18
Lamp. Pocket.....	A. D. Coste	450,949	Apr. 21	2010	598	57	484
Lamp. Pocket.....	J. H. Farrel	451,301	Apr. 28	2591	495	55	406
Lamp. Pocket.....	W. F. Folmer	454,642	June 23	2228	639	55	527
Lamp. Pocket.....	W. F. Folmer	456,359	July 21	1672	574	55	1593
Lamp. Portable electric.....	L. Bristöl	458,279	Aug. 25	2221	441	56	336
Lamp. Regenerative gas.....	F. Siemens	452,608	May 26	2205	544	56	975

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Lamp. Safety.	J. B. Harris, J. T. Griffith, and T. B. Harris.	444,435	Jan. 13	712	186	54	149
Lamp. Self-loading magnesium flash.	D. H. Houston.	446,918	Feb. 24	2315	575	54	990
Lamp-shade.	W. J. Boesen.	466,153	Dec. 29	3453	883	57	1833
Lamp-shade.	W. B. Curtis and C. Himrod.	445,259	Jan. 27	2065	532	54	427
Lamp-shade.	C. F. Monroe.	450,729	Apr. 21	1674	404	55	342
Lamp-shade holder.	J. Jauch.	452,573	May 19	1829	459	55	934
Lamp-shade. Rotary.	L. F. Wakeman.	451,215	Apr. 28	2450	605	55	498
Lamp-shade tripod.	A. W. Paull.	444,650	Jan. 13	1042	271	54	214
Lamp-socket.	J. L. Hinds.	466,288	Dec. 29	3662	937	57	1872
Lamp-socket.	J. L. Hinds.	466,289	Dec. 29	3665	937	57	1873
Lamp-socket.	J. L. Hinds.	466,290	Dec. 29	3667	937	57	1873
Lamp-socket.	F. Voigt.	463,763	Nov. 24	2465	644	57	1051
Lamp-socket and switch and circuit-closer therefor.	H. P. Bull.	455,559	July 7	420	111	56	81
Lamp socket. Electric.	H. E. Swift.	458,242	Aug. 25	2144	525	56	962
Lamp socket. Electric.	L. S. White.	453,455	June 2	446	114	55	1232
Lamp socket. Incandescent.	G. H. Altan.	450,605	Apr. 21	1452	357	55	293
Lamp socket. Incandescent.	W. C. Bryant.	457,072	Aug. 4	223	56	56	575
Lamp socket. Incandescent.	T. J. Fay.	462,677	Nov. 3	728	189	57	691
Lamp socket. Incandescent.	H. J. Gutman.	447,315	Mar. 3	51	13	54	1127
Lamp socket. Incandescent.	W. M. B. Keen.	452,306	May 12	1382	343	55	843
Lamp socket. Incandescent.	G. R. Lean.	444,567	Jan. 13	930	242	54	192
Lamp-socket. Incandescent double-key.	W. J. McCutcheon, Jr.	461,706	Oct. 20	1896	469	57	376
Lamp socket. Incandescent-electric.	J. Crigall.	457,109	Aug. 4	273	71	56	585
Lamp socket. Incandescent-electric.	J. M. Orford.	446,995	Feb. 24	2428	604	54	1011
Lamp socket. Incandescent-electric.	J. O. Phillips.	459,514	Sept. 15	1529	382	56	1378
Lamp socket. Incandescent-electric.	C. P. Poole.	461,898	Oct. 27	2206	544	57	445
Lamp socket. Incandescent-electric.	F. A. Weller.	449,604	Mar. 31	3792	952	54	1870
Lamp sockets. Switch for incandescent.	A. T. Tregurtha.	448,167	Mar. 10	1445	369	54	1402
Lamp. Spray.	G. Rose.	453,131	May 26	2731	668	55	1119
Lamp. Spray.	A. Shedlock.	457,375	Aug. 11	761	196	56	681
Lamp. Spring cushioned or suspended arc.	H. E. Brush.	461,420	Oct. 20	1377	348	57	280
Lamp. Street.	H. Leak.	465,481	Dec. 22	2353	603	57	1612
Lamp. Street.	A. Meyer.	448,533	Mar. 17	2059	515	54	1528
Lamp support. Electric.	J. Chase.	444,330	Jan. 6	543	141	54	109
Lamp support. Electric.	J. W. Easton.	449,902	Apr. 7	390	98	55	76
Lamp-suspending device.	F. H. Corthell.	450,096	Apr. 7	658	166	55	129
Lamp. Tubular.	W. McArthur.	465,597	Dec. 22	2557	651	57	1650
Lamp-wick.	A. E. Harris.	452,103	May 12	1064	269	55	783
Lamp-wick adjuster.	G. H. Wilson.	451,718	May 5	416	101	55	658
Lamp-wick raiser.	M. A. McBride.	462,373	Nov. 3	560	136	57	658
Lamp-wick-raising device.	E. S. Hollister.	457,083	Aug. 4	240	62	56	579
Lamp. Wickless oil.	A. Shedlock.	458,814	Sept. 1	396	95, 96	56	114
Lamps. Adjustable stand for.	F. Beilmann.	449,028	Mar. 24	2845	723	54	1686
Lamps. Apparatus for flashing and exhausting incandescent electric.	W. E. Nickerson and A. Berrenberg.	447,256	Feb. 24	2894	718	54	1100
Lamps. Automatic extinguisher for.	J. W. Price.	465,946	Dec. 29	3098	793	57	1764
Lamps. Carbon-clamp for electric-arc.	A. P. Seymour.	458,718	Sept. 1	261	62	56	1115
Lamps. Carbon for electric-arc.	W. H. Lawrence.	454,873	June 30	2595	666	55	1670
Lamps. Carbon-holder for arc.	J. J. Wood.	462,756	Nov. 10	811	221	57	722
Lamps. Carbon-holder for electric-arc.	H. E. Chapman.	462,662	Nov. 3	6-6	174	57	683
Lamps. Ceiling-rosette for incandescent.	D. J. Cartwright.	450,991	Apr. 21	2098	517	55	422
Lamps. Clutch for arc.	F. H. Thompson.	455,071	June 30	2987	760	55	1746
Lamps. Coupling for electric incandescent.	I. J. Flag.	457,151	Aug. 4	333	55	56	597
Lamps. Covering for the bulbs or globes of electric or other.	A. Duval and H. Nelson.	462,477	Nov. 3	406	97	57	628
Lamps. Current-regulator for electric.	C. H. Balsley, Jr., and E. M. Porter.	451,798	May 5	542	134	55	681
Lamps. Cut-out for arc.	C. E. Scribner.	453,953	July 14	1052	276	56	209
Lamps. Cut-out for incandescent.	T. D. Bottoome.	445,686	Feb. 3	284	75	54	568
Lamps. Detachable ceiling block or bracket for electric.	H. C. Wirt.	446,826	Feb. 17	2137	531	54	950
Lamps. Device for raising or lowering incandescent electric.	C. F. Reinmann.	448,164	Mar. 10	1442	369	54	1401
Lamps. Disk-carbon holder for electric.	E. C. Russell.	446,549	Feb. 17	1719	421	54	866
Lamps. Electric display-burner for oil.	W. A. Drysdale.	453,041	May 26	2579	652	55	1089
Lamps. Electrode for arc.	A. C. Seibold.	448,084	Mar. 10	1323	339	54	1377
Lamps. Electrode for electric-arc.	A. C. Seibold.	447,702	Mar. 3	681	169	54	1247
Lamps. Extensible bracket for electric.	J. E. Titus.	446,037	Feb. 10	864	210	54	688
Lamps. Extensible standard for piano.	N. Johnson.	453,265	June 9	1055	276	55	1357
Lamps from glass. Apparatus for forming central-draft.	A. G. Neville.	457,867	Aug. 18	1537	399	56	839
Lamps. Fuse-box for electric.	A. B. Holmes and G. F. Gale.	460,968	Oct. 13	667	172	57	137
Lamps. Gas-generating attachment for.	H. W. Libbey.	453,307	June 2	198	54	55	1185
Lamps. Globe-protector for electric-arc.	E. J. Openlander.	460,652	Oct. 6	129	48	57	39
Lamps. Hanger or harp for suspending.	C. G. Hoerle.	445,698	Feb. 3	304	80	54	572
Lamps in sockets. Tube for holding.	J. Dardenville.	452,364	May 19	1495	370	55	874
Lamps. Key-socket for double-filament incandescent.	W. J. McCutcheon, Jr.	462,574	Nov. 3	560	136	57	658
Lamps. Lantern for regenerative gas.	L. A. Cooper.	446,991	Feb. 24	2424	603	54	1011
Lamps. Leading-in wire for incandescent electric.	T. A. Edison.	444,530	Jan. 13	866	225	54	181
Lamps. Leading-in wire for incandescent electric.	R. A. Fessenden.	452,494	May 19	1707	55	912	
Lamps. Lens for signal or other.	J. Thorne and E. B. Burr.	446,304	Feb. 10	1331	324	54	775
Lamps. Letter-displaying device for.	J. P. Barringer and T. H. Johnston.	456,755	July 28	2348	619	56	472
Lamps. Manufacture of filaments for incandescent electric.	T. A. Edison.	446,669	Feb. 17	1888	469	54	899
Lamps. Manufacture of incandescent electric.	T. A. Edison.	459,835	Sept. 22	2049	515	56	1484
Lamps. Manufacture of incandescent electric.	R. A. Fessenden.	453,742	June 9	886	230	55	1324
Lamps. Mast-arm for electric.	T. Dillon.	454,166	June 16	1478	388	55	1446
Lamps. Means for suspending and controlling electric.	S. Bergmann.	457,573	Aug. 11	1067	272	56	741
Lamps. Means for suspending electric.	T. H. Brady.	463,773	Nov. 24	2476	646	57	1054
Lamps. Moisture-protection hood for.	A. Shillinglaw.	446,477	Feb. 17	1605	394	54	844
Lamps. Operating arc.	N. Tesla.	447,920	Mar. 10	1068	268	54	1327

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Lamps or oil-stoves. Safety appliance for	J. A. Secor	456,127	July 14	1296	341	56	257
Lamps. Pencil-carbon holder for electric	H. E. Chapman	462,663	Nov. 3	687	174	57	683
Lamps. Reel for raising and lowering electric	J. T. Roberts	445,903	Feb. 3	635	156	54	637
Lamps. Rheostat for electric	T. A. Lacey	462,053	Oct. 27	2444	606	57	490
Lamps. Socket for incandescent	S. Deacon and M. J. Wightman	451,656	May 5	325	79	55	640
Lamps. Socket for incandescent electric	B. B. Keyes	455,287	June 30	3354	846	55	1816
Lamps, &c. Spring-motor for mechanical	J. Camichel	448,208	Mar. 17	1528	391	54	1427
Lamps suspended. Adjustable rest for holding electric	C. A. Danals and W. O. Perry	451,108	Apr. 28	2261	560	55	461
Lamps. Suspending device for electric	D. P. Thomson	451,202	Apr. 28	2434	602	55	495
Lamps, &c. Suspension device for	H. D. Richardson	464,763	Dec. 8	1174	292	57	1367
Lamps. Swinging or drop arm for electric	E. Cliff	444,273	Jan. 6	465	118	54	92
Lamps. Treating filaments for incandescent electric	J. Bradley	464,005	Dec. 1	6	2	57	1138
Lamps. Wall-socket for incandescent electric	P. Lange	450,628	Apr. 21	1492	366	55	301
Lamps. Wick-raiser for central-draft	E. Blackman	461,101	Oct. 13	854	220	57	171
Lamps. Wick-raiser for central-draft	J. C. Miller	456,334	July 21	1632	432	56	329
Lamps. Wick-raising device for central-draft	W. M. Hoerle	451,483	May 5	57	14	55	590
Lamps. Wick-raising mechanism for	B. P. Luce	444,598	Jan. 13	970	251	54	201
Land-roller	F. G. Dodge and D. C. Starks	450,006	Apr. 7	533	133	55	103
Land-roller	N. J. Johnson	450,514	Apr. 14	1317	324	55	259
Land-roller	W. R. Walker	446,306	Feb. 10	1334	324	54	776
Lands. Means for reclaiming overflowed	T. F. Wurts	456,749	July 28	2334	615	56	470
Landside. Adjustable	L. F. Wakeman	451,216	Apr. 28	2451	605	55	499
Lantern	R. J. Armour	458,354	Aug. 25	2338	570	56	998
Lantern	A. L. Baron	456,924	July 28	2626	688	56	523
Lantern	A. L. Baron	464,919	Dec. 8	1391	351	57	1410
Lantern	A. H. Crawford	456,721	July 28	2273	602	56	460
Lantern	H. L. Jewell	458,341	Aug. 25	2318	566	56	994
Lantern	J. W. Orphy	456,962	Aug. 4	63	15	56	545
Lantern	W. C. Stewart and J. A. Blankley	452,857	May 26	2276	571	55	1031
Lantern	W. C. Winfield	447,549	Mar. 3	462	113	54	1204
Lantern and lamp. Tubular	C. L. Betts	451,551	May 5	159	39	55	610
Lantern and vehicle-heater combined	W. B. Baker	458,150	Aug. 25	1990	515	56	933
Lantern. Dissolving-view magic	F. McClintock	450,815	Apr. 21	1821	442	55	369
Lantern. Electric signal and search-light	G. W. Martin	446,142	Feb. 10	1037	255	54	720
Lantern. Folding	L. von der Hoya	464,486	Dec. 1	733	179	57	1275
Lantern for advertising purposes. Magic	J. W. See	451,413	Apr. 28	2754	681	55	557
Lantern. Magic	A. W. Armstrong	457,694	Aug. 11	1343	319	56	774
Lantern. Magic	F. Scheidig	449,386	Mar. 31	3447	320	54	1804
Lantern. Projecting or optical	O. Knipe	465,409	Dec. 15	2241	574	57	1580
Lantern. Signal	T. S. Easterbrook	445,606	Feb. 3	138	36	54	538
Lantern. Signal	H. G. Griffith	449,736	Apr. 7	143	35, 36	55	29
Lantern. Switch	G. L. Estes	461,824	Oct. 27	2095	516	57	423
Lantern. Tubular	W. Baldwin	448,002	Mar. 10	1205	306	54	1353
Lantern. Tubular	L. F. Betts	450,444	Apr. 14	1217	297	55	238
Lantern. Tubular	F. Dietz	453,760	June 9	918	238	55	1329
Lantern. Tubular	G. J. Gerber	445,171	Jan. 27	1922	497	54	400
Lantern. Tubular	C. J. Higgins	457,350	Aug. 11	717	183	56	672
Lantern. Tubular	W. McArthur	445,187	Jan. 27	1952	505	54	405
Lantern. Tubular	W. McArthur	465,598	Dec. 22	2558	652	57	1650
Lantern. Tubular	F. K. Wright	449,094	Mar. 24	2946	746	54	1706
Lantern. Tubular	F. K. Wright	461,064	Oct. 13	802	205	57	161
Lantern. Vehicle	T. B. Jeffery	454,171	June 16	1486	390	55	1417
Lanterns. Burner-fastening for	F. Dietz	464,496	Dec. 8	752	184	57	1287
Lanterns. Dissolving-shutter for magic	J. Shannon	448,825	Mar. 24	2534	635	54	1626
Lanterns. Dissolving-view attachment for magic	Z. B. Coes	453,623	June 9	703	183	55	1290
Lanterns. Lens attachment for	A. L. France	457,988	Aug. 18	1750	459	56	879
Lanterns. Lens attachment for	A. L. France	457,989	Aug. 18	1751	459	56	879
Lanterns. Lens attachment for tubular	A. L. France	457,990	Aug. 18	1751	459	56	879
Lanterns or lamps. Igniting device for	L. A. Roberts	461,048	Oct. 13	780	199	57	157
Lanterns. Wick-raiser attachment for	J. B. Marston and J. W. Feeny	464,654	Dec. 8	996	248	57	1335
Lap-machine stopping mechanism	A. F. Shephardson	458,133	Aug. 18	1959	508	56	920
Lapidary's tool	J. Messaz	457,866	Aug. 18	1535	399	56	839
Laryngoscope and tongue-depressor. Combined	G. Henckel	447,823	Mar. 10	902	225	54	1295
Last	H. Carmichael	460,067	Sept. 22	2398	600	56	1549
Last	W. Gordon	449,577	Apr. 7	349	80	55	69
Last-block fastener	C. H. Gaffney	451,759	May 5	488	121	55	670
Last-rack	F. W. Stickney	453,537	Sept. 15	1565	390	56	1385
Lasting-jack	R. Nagle	452,146	May 12	1135	288	55	795
Lasting-jack	R. C. Nash	448,299	Mar. 17	1699	430	54	1460
Lasting-machine	A. Andres	463,022	Nov. 10	1267	328	57	806
Lasting-machine	M. Brock	444,792	Jan. 13	1267	328	54	255
Lasting-machine	G. W. Copeland, J. E. Crisp, and E. F. Grandy	465,073	Dec. 15	1676	427	57	1473
Lasting-machine	J. E. Matzeliger	459,899	Sept. 22	2153	541	56	1504
Lasting-machine	G. McKay and H. P. Fairfield	458,000	Aug. 18	1763	463	56	881
Lasting-machine	G. McKay and H. P. Fairfield	458,001	Aug. 18	1771	463	56	883
Lasting-machine	G. McPherson	459,165	Sept. 8	974	237	56	1262
Lasting-machine	T. O'Boiger	455,762	July 14	756	199	56	154

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Lasting-machine	J. Patten	452,316	May 12	1394	{ 346 347 348 349 582	55	845
Lasting-machine	J. Patten	452,879	May 26	2308	{ 583 584 585	55	1037
Lasting-machine	A. Seaver and W. S. Hamm	444,858	Jan. 20	1418	{ 368 385	54	293
Lasting-machine	C. Sinning	456,225	July 21	1451	{ 386 387 388	56	294
Lasting-machine	C. Sinning	456,227	July 21	1465	390	56	297
Lasting-machine	C. Sinning	456,228	July 21	1467	390	56	297
Lasting-machine	C. Sinning	458,921	Sept. 1	581	{ 141 142	56	1177
Lasting-machines. Making presser-pads for	D. Lake	460,377	Sept. 29	2884	720	56	1650
Lasting-nippers	D. Lake	460,394	Sept. 29	2907	726	56	1654
Lasting-tacks. Machine for extracting	W. Gordon	448,023	Mar. 10	1242	316	54	1360
Latch	A. H. Applegate	456,008	July 14	1135	297	56	224
Latch	H. C. Beardsley	455,091	June 30	3017	766	55	1751
Latch	W. H. Bell	452,657	May 19	1960	492	55	961
Latch	J. Bradley	446,766	Feb. 17	2044	509	54	930
Latch	J. K. Clark	463,483	Nov. 17	2006	525	57	957
Latch	B. Edwards	463,031	Nov. 10	1282	332	57	809
Latch	J. A. Giese	450,669	Apr. 21	1596	383	55	328
Latch	C. A. Gloekler	444,826	Jan. 20	1328	345	54	276
Latch	J. W. Hansen	450,290	Apr. 14	963	239	55	191
Latch	J. S. Headen and O. L. Beasley	465,928	Dec. 29	3066	786	57	1759
Latch	A. and A. Iske	455,334	July 7	46	14	56	12
Latch	N. and D. B. Johnson	450,939	Apr. 21	1995	491	55	403
Latch	P. D. and A. Johnson	460,016	Sept. 22	2319	581	56	1535
Latch	H. W. Kahle	461,200	Oct. 13	1011	257	57	200
Latch	C. Koegel	454,053	June 16	1310	341	55	1414
Latch	F. J. Lau	451,638	May 5	302	73	55	636
Latch	L. R. Lecellier	448,298	Mar. 17	1698	{ 429 430	54	1460
Latch	C. E. Legg, O. G. Alexander, and G. W. Legg	445,562	Feb. 3	66	16	54	525
Latch	T. C. Mace	462,981	Nov. 10	1213	316	57	794
Latch	G. J. Matson and J. V. Phillips	447,055	Feb. 24	2538	631	54	1031
Latch	J. M. Matthews	464,478	Dec. 1	723	176	57	1272
Latch	C. W. Monroe	466,008	Dec. 29	3226	822	57	1787
Latch	A. A. Page	455,949	July 14	1048	275	56	208
Latch	H. E. Russell, Jr.	450,339	Apr. 14	1055	{ 258 259	55	209
Latch	J. P. Sandberg	451,526	May 5	123	31	55	603
Latch	J. Schade	446,841	Feb. 17	2162	537	54	955
Latch	G. H. Van Winkle	452,738	May 19	2090	526	55	986
Latch	E. Wright	445,108	Jan. 20	1816	470	54	370
Latch and lock combined	R. M. Hunter	464,282	Dec. 1	440	106	57	1213
Latch and lock. Combined	J. D. Perkins and G. Ganderton	463,796	Nov. 24	2506	654	57	1059
Latch and lock. Combined	G. B. Wright	464,222	Dec. 1	341	82	57	1198
Latch. Gate	G. A. Guynemer	450,768	Apr. 21	1730	418	55	354
Latch. Gate	G. Rohrbach	466,186	Dec. 29	3500	894	57	1842
Latch. Gate	F. Ruge	457,936	Aug. 18	1668	436	56	863
Latch. Gate	W. E. Tyler	448,755	Mar. 24	2437	610	54	1607
Latch. Sliding-door	G. A. Colton	449,070	Mar. 24	2908	737	54	1698
Latch. Sliding-door	O. P. Hix	459,906	Sept. 22	2171	546	56	1507
Latch-stop	C. M. Burgess and H. G. Voight	450,353	Apr. 14	1071	263	55	211
Latch-stop	T. Lyons	450,331	Apr. 14	1035	255	55	205
Lath bundling and trimming machine	W. E. Hill	460,049	Sept. 22	2372	593	56	1545
Lath-holder	T. P. Kinney	462,977	Nov. 10	1208	315	57	793
Lathing. Hanger for wire	G. Kelly	445,836	Feb. 3	539	131	54	613
Lathing. Machine for forming sheet-metal	J. Weichhart	446,939	Feb. 24	2345	583	54	995
Lathing. Machine for producing metal	H. A. Stone	459,726	Sept. 15	1877	{ 472 473	56	1444
Lathing. Machine for producing metal	H. A. Stone	459,727	Sept. 15	1879	473	56	1444
Lathing. Metal	W. W. Bostwick	459,625	Sept. 15	1725	432	56	1414
Lathing. Metal	C. H. Curtis	460,850	Oct. 6	483	123	57	96
Lathing. Metal	C. B. Sill	462,333	Nov. 3	179	46	57	585
Lathing. Metallic	L. L. Sagendorph	447,084	Feb. 24	2583	641	54	1040
Lathing. Metallic	L. L. Sagendorph	447,085	Feb. 24	2584	641	54	1040
Lathing. Metallic	F. Stephanie	460,542	Sept. 29	3148	786	56	1702
Lathing. Wire	P. Miles	445,353	Jan. 27	2196	570	54	455
Lathing. Wire	P. Miles	459,014	Sept. 8	732	178	56	1216
Lathe	G. H. Bennett	449,065	Mar. 24	2901	736	54	1697
Lathe	J. L. Bogert	444,544	Jan. 13	889	{ 231 232	54	185
Lathe	W. Buckley	457,070	Aug. 4	220	{ 53 54 55	56	575
Lathe	E. Childs	461,401	Oct. 13	1345	{ 339 340	57	268
Lathe	J. Jennings	452,524	May 19	1758	442	55	921
Lathe	J. B. Preston	444,799	Jan. 13	1278	331	54	257
Lathe and planer attachment	J. Walker	449,392	Mar. 31	3457	870	54	1807
Lathe attachment	W. S. Booth	457,907	Aug. 18	1609	420	56	851
Lathe attachment	M. L. Weeks	458,084	Aug. 18	1882	490	56	905
Lathe attachment for turning-machines	J. Lindstrom and E. F. Bergman	464,757	Dec. 8	1164	290	57	1365
Lathe-horing attachment	J. Walker	451,092	Apr. 28	2236	553	55	459
Lathe-centers. Machine for grinding	W. Barker	447,553	Mar. 3	467	115	54	1205

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Lathe-dog.	C. W. Le Count	453,761	June 9	919	239	55	1330
Lathe-dog.	E. A. Warburton	464,051	Dec. 1	63	18	57	1149
Lathe feed mechanism	Z. B. Coes	462,792	Nov. 10	902	236	57	734
Lathe feed mechanism	J. Flather	462,481	Nov. 3	412	100	57	629
Lathe filing-rest	E. Rivett	462,329	Nov. 3	175	45	57	584
Lathe. Finishing or sizing.	F. Martin	463,747	Nov. 24	2439	639	57	1046
Lathe for making fluted wooden bodies	B. Merklen	447,965	Mar. 10	1142	288 } 289 }	54	1340
Lathe for turning cones and disks	C. E. Albro	456,076	July 14	1227	322	56	242
Lathe for turning handles. Automatic	W. D. Snyder	456,317	July 21	1604	424	56	323
Lathe for turning shafts	E. W. Jones	448,764	Mar. 24	2450	612 } 613 }	54	1610
Lathe-head.	M. C. Johnson	458,423	Aug. 25	2449	596	56	1018
Lathe-head.	C. L. Libby	455,344	July 7	67	18, 19	56	17
Lathe. Locomotive-engine-wheel.	F. Rattek	463,995	Nov. 24	2837	735 } 736 }	57	1122
Lathe marking-tool	M. Tannenbaum and M. Gottdiner	461,966	Oct. 27	2318	575	57	467
Lathe. Pivot	J. Schweizer	446,211	Feb. 10	1158	284	54	741
Lathe. Pivot.	J. Schweizer	457,373	Aug. 11	757	195	56	680
Lathe. Pulley.	M. C. Henly and P. Shellenback	446,448	Feb. 17	1563	384 } 385 }	54	835
Lathe reversing mechanism.	F. Higgins	447,825	Mar. 10	904	225	54	1296
Lathe safety attachment	W. Gleason	447,607	Mar. 3	548	135 } 136 }	54	1220
Lathe-tool holder	J. H. Steen	463,394	Nov. 17	1882	490	57	932
Lathe. Turning.	E. Lindner	452,495	May 19	1707	430	55	912
Lathe. Turning.	J. L. Simmons	444,465	Jan. 13	760	198	54	159
Lathe. Turret.	W. L. Grout and E. L. Bowers	445,694	Feb. 3	294	77, 78	54	570
Lathe. Wood-turning	S. N. Goldy	460,127	Sept. 29	2500	623 } 624 }	56	1576
Lathe. Wood-turning	P. Newman	444,457	Jan. 13	744	194 } 195 }	54	156
Lathe. Wood-turning	C. A. Wagner	455,780	July 14	785	206 } 207 }	56	160
Lathes. Attachment for metal-working	W. Humans	459,867	Sept. 22	2100	527 } 528 }	56	1495
Lathes. Center-grinder for.	J. Weber	457,389	Aug. 11	782	201	56	685
Lathes. Cutting-off tool for	W. Tucker	456,279	July 21	1540	409	56	312
Lathes. Drip-pan for metal-turning	C. M. Conradson	450,481	Apr. 14	1269	309	55	248
Lathes. Gripping device for	W. L. Grout and E. L. Bowers	445,696	Feb. 3	300	79	54	571
Lathes. Gripping device for	W. L. Grout and E. L. Bowers	445,697	Feb. 3	302	60	54	572
Lathes or planing-machines. Driver for	A. E. Brown	453,616	June 9	697	180	55	1288
Lathes. Pipe-threading attachment for	L. B. Curtis	465,838	Dec. 29	2920	747	57	1731
Lathes. Rest for metal-turning	J. R. Back	455,466	July 7	263	67	56	53
Lathes. Stop mechanism for	J. E. Sampson	457,974	Aug. 18	1728	453	56	875
Lathes. Table-operating mechanism for	M. C. Bollenbacher	449,461	Mar. 31	3581	902	54	1830
Lathes. Taper attachment for	J. D. Hazlet and L. L. Lord	450,016	Apr. 7	546	136	55	106
Lathes. Tool-holder for engine	K. J. Pihl	462,160	Oct. 27	2607	649	57	522
Lathes. Wrist-pin-turning attachment for	T. W. Broome	462,370	Nov. 3	243	59, 60	57	597
Laundry conveyer	J. P. Ervin	465,253	Dec. 15	1716	505	57	1530
Laundry-tub. Artificial-stone	T. P. Dunne	457,111	Aug. 4	275	71	56	586
Lavatory	J. H. De Neut	457,262	Aug. 4	530	138 } 139 }	56	631
Lawn-chair	J. J. Dicks	445,012	Jan. 20	1669	428	54	342
Lawn-sprinkler	T. C. Bonnette	461,415	Oct. 20	1371	347	57	279
Lawn-sprinkler	D. A. Hoyt	448,522	Mar. 17	2043	511 } 512 }	54	1525
Lawn-sprinkler	M. D. Jones	462,902	Nov. 10	1090	283	57	771
Lawn-sprinkler	I. W. McGaffey	454,288	June 16	1658	435	55	1481
Lawn-sprinkler	R. S. Moore	464,637	Dec. 8	964	238 } 239 }	57	1329
Lawn-sprinkler	J. S. Woolsey	457,099	Aug. 4	259	67	56	583
Lawn-sprinkler	H. Yoo	461,726	Oct. 20	1923	476	57	382
Lawn-sprinkler. Rotary	W. F. Ware	453,055	May 26	2606	659	55	1094
Lawn-sweeper	L. A. Schaeffer	463,236	Nov. 17	1614	421	57	881
Lead. Apparatus for desilverizing.	F. E. L. Honold	446,455	Feb. 17	1576	387	54	838
Lead-cutter	C. Schrauhstadter, Jr., and C. K. Schilling	460,035	Sept. 22	2340	586 } 587 }	56	1540
Lead Making white.	E. W. Dahl	452,263	May 12	1332	.....	55	832
Lead. Manufacture of white	D. V. Kyte	459,946	Sept. 22	2232	.....	56	1516
Lead or crayon holder.	E. Faber	444,148	Jan. 6	280	67	54	57
Lead or rule cutter gage	D. L. Shivers	459,593	Sept. 15	1662	415	56	1403
Lead sulphate. Making	H. Pennington	452,386	May 19	1525	.....	55	880
Lead. Treating white	E. V. Gardner	448,516	Mar. 17	2032	508 } 509 }	54	1523
Leads, crayons, or pencils. Form of	H. P. Norton	445,252	Jan. 27	2053	528	54	424
Leaf-holder for book or music rests	J. Clark	462,235	Nov. 3	22	5	57	556
Leaf-treating machine	J. H. Strayer	458,686	Sept. 1	219	51	56	1107
Leaf-turner	T. D. Holcomb	445,405	Jan. 27	2267	588 } 589 }	54	468
Leaf-turner	E. Sippach	457,675	Aug. 11	1219	313	56	769
Leather. Antiseptic composition for treating	J. Engelke	448,420	Mar. 17	1894	.....	54	1497
Leather articles. Dressing for	J. W. Foster	451,427	Apr. 28	2779	.....	55	562
Leather-boarding machine	J. W. Vaughn	444,172	Jan. 6	319	77	54	65
Leather-crimping machine	G. H. and A. Cunningham	459,192	Sept. 8	1017	249	56	1270
Leather-crimping machine	S. W. Jamison	457,200	Aug. 4	422	109 } 110 }	56	612
Leather-cutting machine	H. C. Pease	445,588	Feb. 3	111	27	54	533
Leather-cutting machine	S. J. Talbott	459,715	Sept. 15	1859	466	56	1441
Leather-dressing machine.	M. and V. Martin	456,421	July 21	1781	471	56	356
Leather-dressing machine.	T. Shaw	449,707	Apr. 7	96	25	55	21
Leather-finishing machine	E. C. Northrop	466,182	Dec. 29	3495	892	57	1841
Leather graining and softening machine	M. M. Scott	462,825	Nov. 10	960	249 } 250 }	57	746

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &	Vol.	Page.
Leather-hanger. Automatic.....	H. L. Clark.....	464,493	Dec. 8	748	183	57	1286
Leather-hanging frame.....	B. Schnepf.....	457,014	Aug. 4	126	31	56	557
Leather. Impregnating.....	G. C. Seeberger.....	458,132	Aug. 18	1957	.....	56	920
Leather. Machine for whitening or working.....	J. W. Vaughn.....	444,164	Jan. 6	305	73	54	62
Leather. Making artificial.....	A. E. Arnold.....	454,835	June 30	2535	.....	55	1659
Leather-rolling machine.....	J. A. Safford.....	466,083	Dec. 29	3336	{ 851 852 853 }	57	1811
Leather-shaving machine.....	W. S. Bacon.....	463,592	Nov. 17	2185	{ 576 577 }	57	990
Leather-skiving machine.....	W. H. Kimball.....	458,535	Aug. 25	2625	639	56	1052
Leather-softening machine.....	N. Gillard.....	446,594	Feb. 17	1777	439	54	877
Leather-sorting gage.....	J. E. Plummer.....	448,586	Mar. 17	2138	536	54	1544
Leather-splitting machine.....	J. A. Safford.....	462,166	Oct. 27	2615	{ 652 653 }	57	523
Leather-splitting machine.....	J. A. Safford.....	465,145	Dec. 15	1815	{ 460 461 }	57	1499
Leather staking and stretching machine.....	G. W. Baker.....	451,796	May 5	538	123	55	681
Leather-staking machine.....	E. Hayes.....	447,180	Feb. 24	2764	684	54	1074
Leather-staking machine.....	C. F. Stackpole.....	457,136	Aug. 4	306	81	56	592
Leather-stretching machine.....	H. R. Behrens.....	446,847	Feb. 24	2174	{ 541 542 }	54	965
Leather strips. Machine for splitting.....	W. A. Bates.....	445,744	Feb. 3	377	96	54	587
Leather. Tanning and dressing.....	D. W. Brown, I. Clark, and J. F. Brown.....	464,423	Dec. 1	639	.....	57	1256
Leather-treating machine.....	A. A. Hunting.....	451,486	May 5	61	15, 16	55	591
Leather-trimming machines. Rotary cutter for.....	C. W. Glidden.....	459,348	Sept. 8	1259	310	56	1318
Leather-ware. Manufacturing imitation of stamped.....	C. Wittkowsky.....	461,062	Oct. 13	800	204	57	161
Leather whitening and softening machine.....	P. W. Whittier.....	451,096	Apr. 28	2243	555	55	460
Leather-working machine.....	T. F. Gafney and T. C. Dawson.....	448,422	Mar. 17	1895	{ 475 476 }	54	1497
Leather-working machine.....	J. W. Vaughn.....	444,173	Jan. 6	321	77, 78	54	65
Ledger and index. Combined.....	S. B. Kirtley and H. Phillips.....	448,052	Mar. 10	1282	327	54	1369
Ledger leaf or sheet.....	C. M. Wilson.....	445,417	Jan. 27	2282	592	54	472
Ledger. Mechanical.....	J. A. Langstroth.....	453,306	June 2	195	53	55	1185
Ledger. Pocket.....	J. A. Johnson, Jr.....	462,948	Nov. 10	1166	302	57	785
Leg. Artificial.....	J. E. Hanger.....	465,698	Dec. 22	2705	689	57	1679
Leg. Artificial.....	J. B. Kreider.....	453,285	June 2	161	46	55	1178
Leg. Artificial.....	J. B. Kreider.....	464,722	Dec. 8	1114	276	57	1356
Leggin.....	E. Christensen.....	450,326	Apr. 14	1027	253	55	203
Leggin.....	C. R. Macomber.....	448,819	Mar. 24	2526	633	54	1625
Leggin-holder.....	A. Steiner.....	444,655	Jan. 13	1049	273	54	216
Leggin. Water-proof.....	L. W. Groat and W. J. Van Vleck.....	444,489	Jan. 13	805	209	54	168
Lemon-grater.....	J. H. Cox.....	462,626	Nov. 3	637	161	57	674
Lemon-juice extractor.....	H. B. Brown.....	464,954	Dec. 15	1464	369	57	1435
Lemon-juice extractor.....	T. Curley.....	465,244	Dec. 15	1965	502	57	1529
Lemon presser or squeezer.....	S. C. Rupe.....	447,975	Mar. 10	1164	{ 294 295 }	54	1344
Lemon-squeezer.....	E. D. Emmons.....	444,063	Jan. 6	134	33	54	29
Lemon-squeezer.....	F. P. Erick and E. J. Anderson.....	462,429	Nov. 3	342	83, 84	57	615
Lens. Annular.....	E. W. Laurençot.....	451,330	Apr. 28	2635	651	55	535
Lens-grinding machine.....	W. Bausch.....	445,349	Jan. 27	2186	{ 566 567 }	54	453
Lens-grinding machine.....	L. Reese.....	449,947	Apr. 7	40	113	55	88
Lens. Marine.....	R. D. Haines.....	447,727	Mar. 3	721	181	54	1254
Letter and newspaper box. Combined.....	L. H. Stoner.....	464,932	Dec. 8	1407	355	57	1413
Letter-box.....	H. B. Anderson.....	464,842	Dec. 8	1283	322	57	1390
Letter-box.....	G. L. Barney.....	461,490	Oct. 20	1547	379	57	312
Letter-box.....	E. Card.....	462,653	Nov. 3	674	170	57	681
Letter-box.....	P. Catudal and E. Drolet.....	445,497	Jan. 27	2396	623	54	493
Letter-box.....	J. W. Cutler.....	459,974	Sept. 22	2259	567	56	1523
Letter-box.....	P. B. Downing.....	462,093	Oct. 27	2501	621	57	501
Letter-box.....	E. Franke.....	454,127	June 16	1417	370	55	1434
Letter-box.....	E. B. Griffin.....	465,524	Dec. 22	2431	620	57	1627
Letter-box.....	L. Hammel.....	454,732	June 23	2360	606	55	1620
Letter-box.....	J. Harwood.....	452,705	May 19	2034	510	55	976
Letter-box.....	W. C. Heller.....	466,036	Dec. 29	3274	835	57	1797
Letter-box.....	J. T. Leuman.....	444,638	Jan. 13	1024	267	54	211
Letter-box.....	T. R. Lowerre.....	465,580	Dec. 22	2528	644	57	1644
Letter-box.....	W. McClosky.....	448,062	Mar. 10	1296	331	54	1371
Letter-box.....	W. Shempp.....	454,298	June 16	1672	438	55	1484
Letter-box.....	G. D. Sidman.....	449,865	Apr. 7	335	86	55	67
Letter-box.....	A. T. Sinclair.....	450,379	Apr. 14	1121	274	55	220
Letter-box.....	U. G. Stannard.....	444,257	Jan. 6	442	111	54	87
Letter-box.....	C. H. Vause.....	445,867	Feb. 3	583	143	54	626
Letter-box.....	M. B. Wesson.....	455,373	July 7	113	32	56	26
Letter-box.....	C. A. Whelan.....	449,149	Mar. 31	3037	768	54	1731
Letter-box. Combined receiving and delivery.....	C. F. Bilhimer.....	460,106	Sept. 29	2461	615	56	1569
Letter-box for collection and delivery.....	C. H. Pickarts.....	462,733	Nov. 10	811	{ 211 212 }	57	717
Letter-box for collection and delivery.....	W. Scott.....	458,273	Aug. 25	2210	542	56	973
Letter-box. House.....	O. S. White and J. P. Lewis.....	464,928	Dec. 8	1401	{ 353 354 }	57	1412
Letter-box. House and street.....	G. W. Anderson.....	465,311	Dec. 15	2076	531	57	1549
Letter-box. House-door.....	A. S. Adler.....	463,264	Nov. 17	1665	435	57	891
Letter-box. House-door.....	E. Bond.....	452,953	May 26	2442	616	55	1063
Letter-box. House-door.....	W. Bussard.....	448,500	Mar. 17	2014	504	54	1519
Letter-box. House-door.....	H. K. Day.....	460,117	Sept. 29	2479	619	56	1573
Letter-box. House-door.....	E. S. Dunavan.....	450,226	Apr. 14	860	216	55	173
Letter-box. House-door.....	J. H. Gross.....	461,475	Oct. 20	1528	374	57	308
Letter-box. House-door.....	E. C. Hudson.....	452,223	May 12	1258	318	55	820
Letter-box. House-door.....	I. G. Lane.....	446,258	Feb. 10	1255	306	54	760
Letter-box. House-door.....	H. W. Libbey.....	459,386	Sept. 8	1323	331	56	1331
Letter-box. House-door.....	J. P. Lindsay.....	461,117	Oct. 13	872	224	57	175

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Letter-box. House-door	E. Markell	449,371	Mar. 31	3425	861	54	1800
Letter-box. House-door	E. Markell	449,372	Mar. 31	3426	861	54	1800
Letter-box. House-door	E. Markell	460,783	Oct. 6	399	97	57	78
Letter-box. House-door	E. Markell	461,208	Oct. 13	1029	261	57	203
Letter-box. House-door	J. Matthews and J. Gilmer	447,254	Feb. 24	2891	718	54	1099
Letter-box. House-door	A. G. Minges	453,124	May 26	2719	686	55	1117
Letter-box. House-door	W. Scott	449,593	Mar. 31	3775	947 948	54	1867
Letter-box. House-door	G. M. Shinn	448,086	Mar. 10	1326	339 340	54	1378
Letter-box. House-door	W. O. Taylor	457,497	Aug. 11	956	242	56	717
Letter-box. House-door	J. Van Volkenburg	456,972	Aug. 4	77	18	56	548
Letter-box. House-door	T. S. Wiles and A. G. Goldthwait	455,783	July 14	793	208	56	161
Letter-box. Street	A. S. Adler	463,265	Nov. 17	1666	435	57	891
Letter-box. Street	H. H. Cummings	464,275	Dec. 1	432	103	57	1217
Letter-box. Street	P. B. Downings	462,092	Oct. 27	2500	621	57	501
Letter-box. Street	I. G. Lane	446,257	Feb. 10	1253	306	54	760
Letter-box. Street	J. T. Lemman	450,550	Sept. 15	1588	398	56	1389
Letter-box. Street	J. P. Lindsay	465,867	Dec. 20	2965	757	57	1739
Letter-box. Street	H. G. Olds	461,209	Oct. 13	1030	261	57	204
Letter-box. Street	N. W. Palmer	458,064	Aug. 18	1858	484	56	900
Letter-box. Street	P. E. Richter	461,381	Oct. 13	1311	331	57	261
Letter-box. Street	T. F. Stevenson and R. M. Bassett	457,918	Aug. 18	1633	427	56	856
Letter-box. Street	S. Strong	462,224	Oct. 27	2719	685	57	543
Letter-box. Street-door	D. K. Byler	444,520	Jan. 13	851	221	54	178
Letter-boxes. Time-indicator for	E. W. Morton	466,019	Dec. 29	3243	826 827	57	1792
Letter-drop and bell. Combined	E. I. Barnett	461,230	Oct. 13	1071	271	57	213
Letter feeding and separating apparatus.	G. W. Hey	454,405	June 16	1838	481	55	1514
Letter for signs, &c	C. T. Snedekor	457,976	Aug. 18	1730	453	56	875
Letter-marking machine	M. J. Dolphin	449,406	Mar. 31	3485	876 877	54	1812
Letter-sheet. Plate-folding	C. Rowland	453,132	May 26	2734	689	55	1120
Letters and analogous symbols. Mold for	C. T. Snedekor	457,975	Aug. 18	1730	453	56	875
Letters in buildings. Apparatus for distributing	C. Dannenberg	457,327	Aug. 11	969	253	56	725
Letters in door-plates. Forming	T. Huster	464,362	Dec. 1	561	137	57	1241
Lettering device. Adjustable	L. A. Gates	445,750	Feb. 3	388	98	54	589
Levees. Constructing	G. B. Boomer	452,989	May 26	2501	634	55	1074
Level	S. J. Townsend	446,038	Feb. 10	865	210	54	688
Level and folding square. Combined plumb	A. V. Nordenson	459,446	Sept. 15	1424	357	56	1358
Level. Fluid	A. Gamble	451,680	May 5	361	89	55	648
Level for stair-builders. Plumb	F. Barnes	454,701	June 23	2316	595	55	1612
Level. Plumb	S. C. Downey	460,388	Sept. 29	2897	724	56	1632
Level. Plumb	E. M. Keagle and W. L. Follmer	460,749	Oct. 6	348	85	57	69
Level. Plumb	J. T. Lambdin	444,705	Jan. 13	1126	291	54	231
Level. Plumb	C. A. C. Lasar	449,681	Apr. 7	51	13	55	12
Level. Plumb	B. A. Mounts	449,557	Mar. 31	3716	933	54	1856
Level. Plumb	J. Poet	453,794	June 9	973	253	55	1340
Level. Spirit	R. Forwood	456,086	July 14	1239	325	56	244
Level. Spirit	T. J. Gillette	457,992	Aug. 18	1753	460	56	879
Level. Spirit	H. Green	449,609	Mar. 31	3797	953	54	1872
Level. Spirit	H. Green	450,457	Apr. 14	1232	301	55	241
Level. Spirit	C. E. Peterson	465,882	Dec. 29	3002	766	57	1745
Level. Spirit	H. Replogle	462,736	Nov. 10	814	212	57	717
Level. Spirit	F. Schefold	453,329	June 2	230	61	55	1191
Level. Spirit	J. A. Traut	453,452	June 2	442	114	55	1232
Leveling-instrument	E. G. Soltmann and H. E. Grabau	446,956	Feb. 24	2367	589	54	999
Leveling-instrument for builders	J. Paoli	461,390	Oct. 13	1327	335	57	265
Lever	G. H. Jantz	445,558	Feb. 3	49	13	54	521
Lever and crank mechanism	W. H. Shepler	461,055	Oct. 13	791	201 202	57	159
Lever. Break-joint	W. B. Norton	455,728	July 7	702	184	56	135
Lever-lock mechanism	W. B. Norris	466,254	Dec. 29	3604	923	57	1861
Lever-power mechanism	J. Kerwiu	462,490	Nov. 3	422	103	57	631
Lever. Top-joint	W. L. Pike	461,845	Oct. 27	2123	523	57	428
Life-boat	J. F. Green	461,871	Oct. 27	2165	533	57	437
Life-boat	F. Messina	453,048	May 26	2590	654	55	1092
Life-buoy	J. P. A. Galibert	461,956	Oct. 27	2309	572	57	464
Life-guard	T. L. Johnson	454,214	June 16	1548	407	55	1460
Life-lines. Safety-hook for	E. H. Smith	452,199	May 12	1222	309	55	812
Life-preserver	J. Corliu	462,892	Nov. 10	1077	279	57	768
Life-preserver	C. A. L. Köpcke	455,667	July 7	597	157	56	116
Life-preserver	C. A. L. Köpcke	456,621	July 28	2112	558	56	428
Life-saving apparatus	W. W. Riley	445,609	Feb. 3	142	37	54	539
Lift. Automatic double topping	T. L. Arnold	445,530	Feb. 3	2	1	54	511
Lifter:							
See Box-lifter.	Pie-lifter.						
Butter-lifter.	Pipe-lifter.						
Cable-lifter.	Plate or pie lifter.						
Jar-lifter.	Railway-track lifter.						
Lamp-chimney lifter.	Skylight-lifter.						
Load-lifter.	Transom-lifter.						
Log-lifter.	Wagon-bed lifter.						
Pan-lifter.							
Lifting-jack	J. W. Alfred	461,880	Oct. 27	2180	538	57	440
Lifting-jack	J. Barrett	455,993	July 14	1108	292	56	219
Lifting-jack	J. Barrett	455,994	July 14	1111	293	56	220
Lifting-jack	J. Barrett	455,995	July 14	1113	293	56	220
Lifting-jack	H. Billings	449,515	Mar. 31	3660	919	54	1846
Lifting-jack	T. A. Cavender	444,915	Jan. 20	1520	391	54	313
Lifting-jack	H. W. Cornell	464,454	Dec. 1	685	168	57	1265
Lifting-jack	E. Covert	457,183	Aug. 4	385	99	56	606
Lifting-jack	W. H. Cox	460,116	Sept. 29	2477	619	56	1572
Lifting-jack	A. B. Crowell	455,609	July 7	506	131	56	97

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Lifting-jack	J. Green	462,796	Nov. 10	912	238	57	737
Lifting-jack	P. Griffin	463,385	Nov. 17	1861	486	57	928
Lifting-jack	C. A. Hooker and W. D. Hatch	458,847	Sept. 1	466	112	56	1155
Lifting-jack	W. S. Livengood	445,900	Feb. 3	631	155	54	636
Lifting-jack	J. S. Locke	455,628	July 7	533	140	56	103
Lifting-jack	A. J. Logan	462,566	Nov. 3	549	133 134	57	656
Lifting-jack	T. Maxon	451,288	Apr. 28	2576	636	55	524
Lifting-jack	L. Meeker	454,441	June 16	1896	494	55	1526
Lifting-jack	W. Orcutt	463,336	Nov. 17	1775	464	57	910
Lifting-jack	C. R. Piggins	446,537	Feb. 17	1701	417	54	862
Lifting-jack	F. Robinson	458,255	Aug. 25	2161	530	56	965
Lifting-jack	A. P. Rount	460,760	Oct. 6	359	89	57	71
Lifting-jack	W. H. Silverthorn	455,124	June 30	3071	781	55	1762
Lifting-jack	C. C. Smalley	451,339	Apr. 28	2645	654	55	537
Lifting-jack	J. W. Sutphen and D. D. Bray	454,302	June 16	1678	439	55	1485
Lifting-jack	J. A. Wilks	459,805	Sept. 22	1995	502	56	1473
Light:							
See Electric light.	Reflecting-light.						
Electric-arc light.	Search-light.						
Electric head-light.	Ship's side light.						
Electric search-light.	Signal-light.						
Flash-light.							
Light by incandescence. Producing	O. B. Fahnehjelm	450,099	Apr. 7	664	168	55	130
Light by magnesium or other glowing materials. Producing intense	J. W. C. C. Schirm	446,891	Feb. 24	2263	563	54	981
Light-extinguisher. Automatic	J. F. McCormic	458,660	Sept. 1	177	42	56	1099
Lights. Controlling apparatus for incandescent	W. J. Kelly	466,245	Dec. 29	3585	917	57	1858
Lights. Sectional shade for incandescent electric	A. F. Gärtner and J. C. Harris	452,638	May 19	1937	486	55	956
Lights. Shade for incandescent electric	A. F. Gärtner and J. C. Harris	452,701	May 19	2029	508	55	975
Lighting apparatus	J. T. Scholte	450,429	Apr. 14	1197	292	55	235
Lighting device. Automatic	C. H. Wolf	453,456	June 2	449	115	55	1233
Lighting of tables and the like by electricity	O. H. Stovell	453,871	June 9	1064	278	55	1358
Lighting system. Arc	R. S. Dobbie	461,569	Oct. 20	1675	410	57	336
Lightning-arrester	J. W. Easton	449,903	Apr. 7	391	99	55	77
Lightning-arrester	J. P. Freeman	458,656	Sept. 1	172	40	56	1098
Lightning-arrester	F. Mansfield and C. W. Wason	455,223	June 30	3234	822	55	1793
Lightning-arrester	E. Thomson	444,678	Jan. 13	1091	283	54	223
Lightning-arrester	E. Thomson	454,671	June 23	2271	583	55	1601
Lightning-arrester	E. Thomson	454,672	June 23	2272	583	55	1602
Lightning-arrester	E. Thomson	454,673	June 23	2274	583 584	55	1602
Lightning-arrester	E. Thomson	464,535	Dec. 8	900	221	57	1317
Lightning-arrester	E. W. Van Brunt and W. M. Raynor	461,991	Oct. 27	2355	584	57	474
Lightning-arrester	C. S. Van Nuis and J. H. Vail	455,955	July 14	1055	277	56	209
Lightning-arrester	J. J. Wood	460,289	Sept. 29	2747	684 685	56	1625
Lightning-arrester	A. Wurts	465,958	Dec. 29	3119	799	57	1768
Lightning-rod	G. W. Downey	446,130	Feb. 10	1013	250	54	717
Lightning-rod. Hollow braided	G. R. Kress	452,796	May 26	2186	548	55	1014
Lightning-rods. Grounding device for	C. M. Radford	452,983	May 26	2493	631	55	1072
Limb. Artificial	A. Ganlt	464,356	Dec. 1	553	135	57	1239
Limb. Artificial	F. W. Neubert	450,297	Apr. 14	974	242	55	193
Limb. Artificial	T. Sparham	452,048	May 12	954	243	55	765
Lime. Hydraulic	J. H. Wright	460,697	Oct. 6	273		57	54
Limekiln. Fluid-fuel	W. B. Wright	459,693	Sept. 15	1820	457	56	1433
Lime kiln or furnace	H. Haunschild	453,774	June 9	942	244	55	1334
Limit-switch	F. B. Rae	454,496	June 23	1980	515	55	1550
Line and trace holder	W. H. Ragan	458,112	Aug. 18	1926	501	56	914
Line-fastener	G. H. Haven	457,276	Aug. 4	553	145	56	635
Line or rein grip	M. L. Schoch	458,344	Aug. 25	2332	567	56	995
Line or rope holder	W. F. Kiefer	465,577	Dec. 22	2325	643	57	1644
Line or rope holder	N. Nief and P. Cotte	449,567	Mar. 31	3729	937	54	1859
Line. Safety	I. Bernauer	465,446	Dec. 22	2398	590	57	1601
Line-tightener	C. H. Pettay	449,085	Mar. 24	2333	743	54	1703
Liniment	B. E. Donham	454,334	June 16	1722		55	1493
Liniment	P. Hébert	445,995	Feb. 10	802		54	677
Liniment	P. F. Perrin	448,728	Mar. 24	2393		54	1509
Liniment	A. Rosenberg	444,398	Jan. 6	653		54	129
Liniment	J. Wilfong	445,592	Feb. 3	116		54	534
Link-bending machinery	J. W. R. Johnson	459,401	Sept. 15	1351	338 339	56	1345
Link-motion	J. Lunz	463,523	Nov. 17	2654	538	57	966
Link. Split	W. E. Bailey	446,317	Feb. 10	1348	328	54	779
Links and apparatus therefor. Manufacture of	J. H. Baker	451,797	May 5	540	133	55	681
Links, &c. Fastening to be used as sleeve	C. Jackson	459,469	Sept. 15	1457	366 367	56	1364
Linotype-bar. Curved	E. A. Henkle and J. C. Fowler	461,338	Oct. 13	1229	312	57	246
Linotype-bars. Apparatus for the manufacture of curved	E. A. Henkle and J. C. Fowler	446,738	Feb. 17	2004	499	54	921
Linotype-machine	J. O. Clephane	453,962	June 9	1183	309	55	1382
Linotype-machine	J. O. Clephane	458,314	Aug. 25	2270	554	56	984
Linotype-machine	P. T. Dodge	449,872	Apr. 7	343	88	55	68
Lint coating and packaging machine	J. W. Johnson	455,865	July 14	918	240	56	185
Liquid-cooler	J. Klein	444,558	Jan. 13	912	237 238	54	189
Liquid-cooler	P. J. Slavin	448,552	Mar. 17	2085	523	54	1534
Liquid-cooling device	C. W. Weiss	458,607	Sept. 1	92	21	56	1084
Liquid-fuel furnace	G. Rose	461,589	Oct. 20	1706	417	57	341
Liquid-holding can	I. Sexton	460,327	Sept. 29	2806	699	56	1636
Liquid-mixing apparatus	E. R. Gabbett	444,345	Jan. 6	566	145	54	112
Liquid-purifier	G. G. Schroeder	447,585	Mar. 3	517	126	54	1214
Liquid-raising device	C. Storla	465,736	Dec. 22	2752	702	57	1689
Liquid-separator. Centrifugal	J. Laidlaw	463,058	Nov. 10	1323	342	57	817

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Liquid-shaking machine	R. D. Schroeder	457,938	Aug. 18	1670	437	56	863
Liquid substances. Machine for applying	M. D. Knowlton	452,844	May 26	2257	{ 566 567 }	{ 55 55 }	{ 1027 1027 }
Liquid-tester	J. M. Bell	455,733	July 14	721	190	56	148
Liquid-treating apparatus	F. W. Wiesebrook	455,893	July 14	960	251	56	193
Liquids. Apparatus for delivering	S. Jenkins	449,778	Apr. 7	205	53	55	42
Liquids. Apparatus for determining the refraction of	K. G. A. Sonden	454,989	June 30	2829	720	55	1715
Liquids. Apparatus for dispensing	W. M. Fowler	454,997	June 30	2851	{ 725 726 }	{ 55 55 }	{ 1719 1719 }
Liquids. Apparatus for distributing	A. Hamelberg	464,020	Dec. 1	26	7	57	1141
Liquors. Apparatus for treating fermented	W. H. Foye	445,168	Jan. 27	1919	495	54	399
Liquids. Clarifying	C. Liesenberg	450,243	Apr. 14	903	.....	55	180
Liquids. Device for applying	C. S. Pease	451,640	May 5	304	74	55	636
Liquids in tanks, vats, or other vessels. Instrument for sampling or gaging the depth of	F. Sedgley	455,122	June 30	3068	781	55	1761
Liquids. Vessel for holding	J. W. Kirkpatrick	455,511	July 7	335	86	56	67
Lister and drill. Combined	W. A. Loughry	461,353	Oct. 13	1253	319	57	251
Lithmetalography	C. L. Kling	454,438	June 16	1893	.....	55	1525
Lithographic plates. Manufacture of	O. Kindermann	445,650	Feb. 3	211	.....	54	554
Litter	M. Tell	455,778	July 14	778	205	56	158
Live-stock releaser	N. R. Sheets	447,979	Mar. 10	1170	297	54	1346
Load-lifter	R. Sargent	450,089	Apr. 7	649	163	55	127
Loader and press. Combined	D. S. Fisher	456,484	July 21	1881	{ 497 498 }	{ 56 56 }	{ 375 375 }
Loading and unloading apparatus	J. Abbott	453,851	June 9	1035	{ 270 271 }	{ 55 55 }	{ 1353 1353 }
Loading and unloading apparatus	T. J. Clepper	464,555	Dec. 8	842	{ 207 208 }	{ 57 57 }	{ 1304 1304 }
Loading and unloading device	R. A. Converse	463,889	Nov. 24	2663	694	57	1088
Lock:							
See Alarm-lock. Page-cord lock.							
Bag-lock. Permutation-lock.							
Bail-lock. Piano-lock.							
Bottle-lock. Printer's-galley lock.							
Canal-lock. Railway-gate lock.							
Car-door lock. Railway-switch lock.							
Chase-lock. Registering lock.							
Combination-lock. Revolver-lock.							
Cylinder-lock. Rudder-lock.							
Door-lock. Safe-lock.							
Electric lock. Sash-lock.							
Electrical lock. Scuttle-lock.							
Fire-arm lock. Seal-lock.							
Galley-lock. Signal-indicator lock.							
Gnn-lock. Supporting-lock.							
Hasp-lock. Till-lock.							
Head-gate lock. Time-lock.							
Hinge-lock. Transom-lock.							
Indicator-lock. Trunk-lock.							
Mail-bag lock. Vehicle-door lock.							
Nut-lock. Vehicle-seat lock.							
Nut and bolt lock. Wagon-lock.							
Lock	G. J. Bedford	459,484	Sept. 15	1482	372	56	1369
Lock	C. A. Berry	460,498	Sept. 29	3063	769	56	1683
Lock	C. A. Berry	461,780	Oct. 20	2016	{ 497 498 }	{ 57 57 }	{ 399 399 }
Lock	F. J. Biggs	450,765	Apr. 21	1725	418	55	353
Lock	F. J. Biggs	452,893	May 26	2338	590	55	1042
Lock	J. T. Cole	460,561	Oct. 6	27	7	57	7
Lock	P. Crady	450,220	Apr. 14	844	212	55	170
Lock	C. E. A. A. Deny	448,912	Mar. 24	2675	673	54	1653
Lock	B. Edwards	445,501	Jan. 27	2106	628	54	494
Lock	H. Elliott	465,974	Dec. 29	3148	806	57	1774
Lock	L. S. Ellsworth	447,871	Mar. 10	984	246	54	1311
Lock	J. Fey	451,709	May 5	404	98	55	656
Lock	A. F. Harrison	465,819	Dec. 22	2882	737	57	1714
Lock	J. Higbee	449,677	Apr. 7	46	11	55	11
Lock	V. M. Hollyday	453,082	May 26	2654	669	55	1103
Lock	W. F. Hyatt	444,885	Jan. 20	1461	378	54	302
Lock	W. F. Hyatt	461,023	Dec. 1	29	8	57	1142
Lock	M. Jacobs	449,077	Mar. 24	2916	740	54	1700
Lock	C. E. Jones, Sr.	453,192	June 2	21	7	55	1153
Lock	J. Kaye	449,160	Mar. 31	3050	771	54	1734
Lock	J. Kubler	447,957	Mar. 10	1131	284	54	1339
Lock	C. L. Lincoln	461,350	Oct. 13	1248	318	57	250
Lock	T. Lincoln	450,745	Apr. 21	1697	410	55	347
Lock	H. Ludwig	446,101	Feb. 10	964	237	54	707
Lock	W. A. McCann	448,986	Mar. 24	2777	702	54	1673
Lock	P. McMahon	451,878	May 5	653	{ 164 165 }	{ 55 55 }	{ 703 703 }
Lock	A. P. Merrill	465,941	Dec. 29	3090	792	57	1763
Lock	G. Munson and W. J. Ladd	458,370	Aug. 25	2369	577	56	1003
Lock	H. A. Palmer	452,385	May 19	1524	378	55	879
Lock	R. L. Reed	446,789	Feb. 17	2072	516	54	936
Lock	G. T. Rogers	447,623	Mar. 3	574	142	54	1226
Lock	H. E. Russell, Jr.	450,341	Apr. 14	1057	259	55	209
Lock	M. Simon	457,872	Aug. 18	1549	{ 402 403 }	{ 56 56 }	{ 841 841 }
Lock	W. C. Smith	449,820	Apr. 7	266	76	55	57
Lock	W. C. Smith	454,077	June 16	1351	353	55	1421
Lock	S. P. Stein	457,677	Aug. 11	1220	314	56	769
Lock	J. von Szeeszy	450,778	Apr. 21	1751	424	55	357
Lock	W. H. Taylor. (Reissue)	11,152	Mar. 17	2218	555	54	1559

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Lock	W. H. Taylor	456,917	July 28	2615	686	56	521
Lock	W. H. Taylor	457,753	Aug. 11	1351	350	56	798
Lock	W. H. Taylor	464,805	Dec. 8	1239	309	57	1380
Lock	G. W. Wooley	446,375	Feb. 10	1429	351	54	796
Lock and latch handle	N. G. Sorensen	448,379	Mar. 17	1827	460	54	1484
Lock-case	C. H. Beebe	446,246	Feb. 10	1237	302	54	757
Lock-case	W. H. Taylor	458,863	Sept. 1	491	120	56	1159
Lock case. Bag or satchel	W. Roemer	457,216	Aug. 4	446	117	56	616
Lock-hook	F. Splittstoser	458,779	Sept. 1	349	84	56	1132
Lock-lever	P. Farwell	445,328	Jan. 27	2154	558	54	446
Lock-washer	M. P. Wilkins	456,296	July 21	1577	417	56	318
Locks. Key-guide for	F. W. Mix	448,981	Mar. 24	2769	700	54	1671
Locking box. Secret	C. J. Theuerner	447,984	Mar. 10	1179	299	54	1348
Locking mechanism. Coin-operated	B. Hallett	451,556	May 5	168	41	55	612
Locomotive	R. S. Battles	455,154	June 30	3123	793	55	1771
Locomotive	J. B. Mahana	461,483	Oct. 20	1536	376	57	309
Locomotive	P. Seiler	457,939	Aug. 18	1673	437	56	864
Locomotive ash-pan	E. M. Fitzgerald	446,608	Feb. 17	1795	444	54	881
Locomotive-bicycle	J. Fish	444,822	Jan. 20	1322	342	54	272
Locomotive-boilers. Steam-generator for	J. A. Eno	466,274	Dec. 29	3637	930	57	1868
Locomotive-cab seat	E. M. Stannard	444,654	Jan. 13	1047	272	54	215
Locomotive-cab windows. Dust-guard for	F. C. Bond	458,939	Sept. 1	610	150	56	1184
Locomotive-coupling	T. L. McKeen	447,579	Mar. 3	504	124	54	1312
Locomotive-coupling	T. L. McKeen	464,381	Dec. 1	582	143	57	1245
Locomotive-driver brake	W. L. Austin	450,212	Apr. 14	833	209	55	168
Locomotive-driver brake	J. C. Heron	465,060	Dec. 15	1662	423	57	1471
Locomotive. Electric	G. R. Baldwin	446,245	Feb. 10	1235	302	54	757
Locomotive. Electric	N. C. Bassett	453,298	July 7	3	12	56	3
Locomotive. Electric	E. M. Boynton	446,821	Feb. 17	2129	528	54	948
Locomotive. Electric	S. H. Short	463,356	Nov. 17	1812	473	57	918
Locomotive. Electric	C. J. Van Depoele	448,562	Mar. 17	2101	526	54	1537
Locomotive. Electric	M. Waddell and J. B. Entz	444,512	Jan. 13	841	218	54	175
Locomotive. Electrically-driven	E. H. Morgan	466,180	Dec. 29	3493	891	57	1840
Locomotive-engine	H. F. Colvin	463,856	Nov. 24	2607	678	57	1079
Locomotive-engine	A. J. Huber	462,556	Nov. 3	532	129	57	652
Locomotive-engine	R. Peacock and H. L. Lange	448,927	Mar. 24	2692	679	54	1657
Locomotive-engine. Compound	G. S. Strong	450,751	Apr. 21	1704	412	55	348
Locomotive-engines. Fire-box for	G. A. Ayer	463,090	Nov. 10	1375	355	57	827
Locomotive-exhaust nozzle	A. E. Allcott	465,651	Dec. 22	2638	673	57	1665
Locomotive for electric railways	T. A. Edison	446,667	Feb. 17	1886	468	54	898
Locomotive for tramways	C. D. Scott	452,124	May 12	1099	280	55	789
Locomotive-gearing	R. B. McWhirter	442,160	Mar. 10	1437	367	54	1400
Locomotive or street-car motor. Electric	R. Eickemeyer	453,167	May 26	2802	702	55	1129
Locomotive sand-box	J. McDonald	456,054	July 14	1198	315	56	236
Locomotive sand-pipe end	W. Evans	460,529	Sept. 29	3121	780	56	1697
Locomotive sand-pipes. Bell-mouth coupling for	W. Evans	460,530	Sept. 29	3123	781	56	1697
Locomotive-signal	M. M. Greenwade	460,130	Sept. 29	2510	625	56	1578
Locomotive-spring	W. E. Ludlum	458,705	Sept. 1	245	58	56	1112
Locomotive-spring and making the same	W. Evans	465,661	Dec. 22	2656	677	57	1668
Locomotive stopping and signaling mechanism	J. C. Gross	446,288	Feb. 10	1297	317	54	769
Locomotive. Street-car	E. Dederick	461,466	Oct. 20	1457	366	57	296
Locomotive-tenders. Apparatus for transferring coal to moving	J. Van Nest, Jr., and W. B. Kinney	444,947	Jan. 20	1570	403	54	322
Locomotive-wheels. Means for truing	J. Elder	449,350	Mar. 31	3378	851	54	1792
Locomotives. Automatic safety electric system for	E. Denning	452,871	May 26	2296	576	55	1034
Locomotives. Blast-pipe for	C. Adams and G. Macallan	453,321	June 2	220	58	55	1189
Locomotives. Exhaust-nozzle for	J. H. Pitkin and J. S. Lane	458,320	Aug. 25	2277	556	56	985
Locomotives. Extension smoke-stack for	H. D. Dunbar	447,106	Feb. 24	2615	649	54	1047
Locomotives. Power-storing mechanism for electric	J. A. Hockett	463,315	Nov. 17	1742	456	57	905
Locomotives. Rail-cleaning and lubricating attachment for	H. T. Currie	444,694	Jan. 13	1124	288	54	228
Locomotives. Smoke-consumer for	J. Player	449,826	Apr. 7	280	74	55	56
Locomotives. Traction device for	S. Runser	450,532	Apr. 14	1337	329	55	263
Locomotives. Traction-increaser for	H. A. Giles	462,944	Nov. 10	1161	301	57	784
Locomotives. Variable exhaust mechanism for	P. F. White	457,930	Aug. 18	1656	433	56	861
Locomotor. Electric	H. F. and G. F. Shaw	458,729	Sept. 1	276	66	56	1118
Locomotor. Electric	G. Westinghouse, Jr.	450,652	Apr. 21	1567	376	55	322
Log-bolster	L. Buntrock	464,813	Dec. 8	1245	311	57	1381
Log-crosscutting machine	T. S. Crane	447,462	Mar. 3	315	79	54	1177
Log lifter and turner	F. Simonson	448,591	Mar. 17	2149	538	54	1546
Log lifter and turner	F. Simonson	448,592	Mar. 17	2150	539	54	1546
Log lifter and turner	F. Simonson	448,593	Mar. 17	2153	539	54	1547
Log lifting and turning machine	F. Simonson	448,588	Mar. 17	2143	537	54	1544
Log-loader	W. E. Hill	453,864	June 9	1054	276	55	1357
Log loader and turner	F. Simonson	448,590	Mar. 17	2147	538	54	1546
Log-turner	H. O. Lange	460,976	Oct. 13	680	176	57	140
Log-turner	J. Mills and C. W. Zimmerman	448,662	Mar. 24	2280	572	54	1577
Logs. Apparatus for thawing	H. M. Crittenton	454,716	June 23	2338	600	55	1616
Logs buoyant. Device for rendering	G. Duryee	447,668	Mar. 3	630	157	54	1237
Logging-road tool	A. J. Boatwick	465,448	Dec. 22	2299	590	57	1602
Loom	C. Alvord	447,652	Mar. 3	612	151	54	1233
Loom	I. C. Beatty	465,515	Dec. 22	2414	617	57	1623

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Loom	W. Bowker and R. Williams	448,202	Mar. 17	1516	386 387 388 389	54	1426
Loom	J. Conche	453,625	June 9	711	183 184	55	1290
Loom	J. F. Cranston and J. H. Wesson	445,395	Jan. 27	2247	583 584	54	464
Loom	G. Crompton and H. Wyman	455,175	June 30	3162	802	55	1779
Loom	W. F. Draper and D. Durkin	454,564	June 23	2083	537	55	1569
Loom	W. F. Draper and J. H. Northrop	462,919	Nov. 10	1112	290	57	775
Loom	J. Ellis and J. Spence	453,467	June 2	461	118	55	1235
Loom	J. Leeming	457,731	Aug. 11	1314	340 341	56	789
Loom	J. H. Northrop	454,805	June 23	2470	635 636 637	55	1640
Loom	J. H. Northrop	454,806	June 23	2476	637	55	1641
Loom	J. H. Northrop	454,808	June 23	2479	637 638 639	55	1642
Loom	J. H. Northrop	454,810	June 23	2486	640 641	55	1642
Loom	H. A. Remington	449,297	Mar. 31	3274	829	54	1774
Loom	A. E. Rhoades	454,791	June 23	2443	628 629	55	1636
Loom	R. Simon	453,280	June 2	155	44, 45	55	1177
Loom	W. Talbot	457,411	Aug. 11	811	208 209	56	691
Loom	E. Wright	452,328	May 12	1434	354 355	55	852
Loom	H. Wyman	444,789	Jan. 13	1264	327 229	54	255
Loom, &c. Circular	B. L. Stowe	446,085	Feb. 10	936	230 231	54	702
Loom-cranks. Machine for forming	J. M. Babbitt, 2d	455,499	July 7	313	80	56	63
Loom-dobby	G. Parker	448,668	Mar. 24	2291	574 575	54	1579
Loom for weaving chenille fabrics	A. Sinclair	446,896	Feb. 24	2269	564 565 566	54	982
Loom for weaving pile fabrics	B. Hilbert	452,918	May 26	2374	601 602	55	1049
Loom for weaving slat-and-wire fabrics	C. E. Parks	463,815	Nov. 24	2534	601 602	57	1065
Loom for weaving tufted fabrics	H. Wyman and F. S. Webb	446,177	Feb. 10	1103	270 271	54	731
Loom for weaving tufted pile fabrics	H. Skinner and F. H. Connolly	449,337	Mar. 31	3357	846 847 848	54	1788
Loom for weaving tufted pile fabrics	H. Wyman	454,414	June 16	1858	486 362	55	1518
Loom for weaving tufted pile fabrics	H. Wyman and J. A. Clark	446,402	Feb. 10	1474	363 364 365 366	54	805
Loom for weaving wire	N. Greening	457,027	Aug. 4	143	35	56	561
Loom for weaving wire-cloth	N. Greening	462,002	Oct. 27	2370	587	57	477
Loom friction let-off	H. Wyman and A. A. Gordon	459,355	Sept. 8	1269	313	56	1320
Loom. Hair-cloth	R. H. Young and J. Holyoak	460,228	Sept. 29	2646	659	56	1605
Loom-harness	W. A. Grant	461,752	Oct. 20	1961	486 487	57	389
Loom harness-motion	G. F. Hutchins	446,553	Feb. 17	1722	422 423	54	866
Loom-heddle	J. Bénazet	462,854	Nov. 10	1012	261	57	756
Loom-heddle	A. W. Frail	461,468	Oct. 20	1459	367	57	297
Loom Jacquard mechanism	J. C. Liberty	465,411	Dec. 15	2243	575 576	57	1580
Loom Jacquard mechanism	A. Turkington	446,039	Feb. 10	866	210 211	54	688
Loom. Lappet	J. W. Cheney	451,914	May 12	733	184	55	724
Loom let-off and take-up mechanism	J. W. Eisenhart	448,327	Mar. 17	1747	441	54	1469
Loom let-off mechanism	W. E. Sharples	445,383	Jan. 27	2230	578	54	461
Loom-lingo	J. M. Marco	461,638	Oct. 20	1785	440	57	355
Loom lingo or heddle-weight	J. M. Marco	461,639	Oct. 20	1786	440	57	355
Loom. Narrow-ware	O. W. Schaum	460,662	Oct. 6	205	53	57	42
Loom. Needle	H. Skinner and F. H. Connolly	449,336	Mar. 31	3353	845 846	54	1787
Loom-picker	J. Pickles and A. Horsfall	459,793	Sept. 22	1978	498	56	1469
Loom-picker	J. P. Thompson	450,851	Apr. 21	1878	460	55	380
Loom-picker	J. P. Thompson	450,852	Apr. 21	1879	460	55	381
Loom-picker-operating mechanism	L. L. Allen	464,908	Dec. 8	1379	347 348	57	1407
Loom picker-staff check	E. J. Ellis	452,265	May 12	1324	331	55	833
Loom picker-staff check	J. T. Marsden	449,268	Mar. 31	3220	813	54	1766
Loom picker-staff-operating device	T. McCarty	447,841	Mar. 10	936	234	54	1302
Loom picker-staff-operating mechanism	J. A. Tucker	462,340	Nov. 3	189	48	57	586
Loom picker-stick-operating mechanism	J. S. Gray, Sr.	455,563	July 7	427	114	56	83
Loom positive shuttle-motion	J. W. Babcock	447,038	Feb. 24	2513	624	54	1026
Loom positive shuttle-operating mechanism	G. F. Hutchins	457,084	Aug. 4	241	62	56	579
Loom protector stopping mechanism	A. B. and H. Taplin	460,100	Sept. 22	2449	612	56	1560
Loom-reed	J. B. Newell	457,093	Aug. 4	253	66	56	581
Loom-reed	C. S. Strowbridge	457,409	Aug. 11	809	208	56	691
Loom shedding and shuttle-box-operating mechanism	G. F. Hutchins	454,135	June 16	1429	374	55	1436

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Loom shedding mechanism.....	J. Cashman.....	454,252	June 16	1600	421	55	1470
Loom shedding mechanism.....	A. F. Devigne and J. P. Durand...	452,451	May 19	1635	408 409	55	900
Loom shedding mechanism.....	E. Redfearn.....	459,257	Sept. 8	1112	271	56	1289
Loom shedding mechanism.....	J. H. Stone.....	452,396	May 19	1543	382 383	55	883
Loom shedding mechanism.....	F. Tonnar.....	445,098	Jan. 20	1801	464 465	54	367
Loom shedding mechanism.....	K. Wein.....	460,414	Sept. 29	2929	732 733	56	1658
Loom shedding mechanism.....	C. W. Wolff.....	445,791	Feb. 3	459	113	54	601
Loom shedding mechanism.....	H. Wyman.....	459,474	Sept. 15	1464	368 369	56	1366
Loom-shuttle.....	H. P. Briggs.....	450,554	Apr. 14	1365	337	55	269
Loom-shuttle.....	G. O. Draper.....	454,796	June 23	2455	631	55	1638
Loom-shuttle.....	W. F. Draper.....	454,797	June 23	2457	631	55	1639
Loom-shuttle.....	A. D. Emery.....	444,095	Jan. 6	179	45	54	38
Loom-shuttle.....	R. Fox.....	449,932	Apr. 7	430	108	55	84
Loom-shuttle.....	A. Isherwood.....	461,150	Oct. 13	919	238	57	184
Loom-shuttle.....	J. H. Northrop.....	454,807	June 23	2478	637	55	1641
Loom-shuttle.....	A. H. Steele.....	447,500	Mar. 3	391	95	54	1191
Loom-shuttle and spindle.....	J. H. Northrop.....	454,809	June 23	2484	638	55	1642
Loom shuttle-binder.....	J. W. Davis.....	446,113	Feb. 10	983	242	54	711
Loom shuttle-box-operating mechanism.....	J. D. Butler.....	456,550	July 28	1991	525 526 527	56	405
Loom shuttle-box-operating mechanism.....	F. Lacey.....	449,742	Apr. 7	150	37, 38	55	30
Loom shuttle-box-operating mechanism.....	G. W. Stafford.....	455,772	July 14	771	203	56	157
Loom shuttle-check.....	H. Otto.....	465,026	Dec. 15	1612	410	57	1462
Loom shuttle-guard.....	J. M. Peckham.....	453,499	June 2	509	131	55	1244
Loom shuttle-locking mechanism.....	H. Graichen.....	462,701	Nov. 10	765	199	57	707
Loom shuttle-operating mechanism.....	S. Turner.....	445,682	Feb. 3	280	74	54	567
Loom-shuttle raceway.....	G. C. Moore.....	456,675	July 28	2199	583	56	445
Loom-shuttle spindle.....	J. H. Northrop.....	454,811	June 23	2494	641	55	1643
Loom-shuttle tension device.....	J. Cuthbertson.....	448,475	Mar. 17	1979	497	54	1512
Loom-shuttle tension device.....	J. W. Eisenhart.....	460,723	Oct. 6	308	76	57	61
Loom-shuttle tension device.....	W. Livingston.....	454,013	June 9	1259	327	55	1397
Loom-shuttle tension-regulating device.....	S. and A. Bentley.....	447,629	Mar. 3	583	144	54	1227
Loom-shuttles. Cop-spring for.....	F. A. Wilmot.....	459,849	Sept. 22	2068	520	56	1488
Loom-shuttles. Float-detecting attachment for.....	H. Baumann.....	449,194	Mar. 31	3111	785	54	1745
Loom-shuttles. Tension-regulating device for.....	J. P. Thompson.....	464,444	Dec. 1	671	164	57	1262
Loom stop-motion.....	F. M. J. Grenier.....	462,924	Nov. 10	1136	293 294	57	778
Loom stopping mechanism.....	J. Hayes.....	458,624	Sept. 1	118	26	56	1089
Loom stopping mechanism. Swivel.....	W. J. Lutton.....	461,584	Oct. 20	1696	415	57	340
Loom-swell.....	J. P. Thompson.....	457,961	Aug. 18	1704	446	56	871
Loom. Swivel.....	W. J. Lutton.....	460,477	Sept. 29	3025	757 758	56	1676
Loom. Swivel.....	H. Wyman.....	449,790	Apr. 7	228	58, 59	55	46
Loom take-up.....	G. F. Hutchins.....	459,173	Sept. 8	991	242	56	1265
Loom take-up mechanism.....	G. F. Hutchins.....	457,451	Aug. 11	871	226	56	702
Loom take-up mechanism.....	G. F. Hutchins.....	461,978	Oct. 27	2337	579 580	57	470
Loom-temple.....	L. F. Brous.....	464,214	Dec. 1	328	80	57	1195
Loom-temple.....	W. F. Draper, E. S. Stimpson, and J. H. Northrop.	464,193	Dec. 1	287	70	57	1189
Loom-temple.....	S. Hamblin.....	445,336	Jan. 27	2171	562	54	449
Loom-temple.....	C. A. Littlefield.....	445,148	Jan. 20	1885	487	54	384
Loom-temple.....	C. A. Littlefield.....	456,118	July 14	1285	338	56	254
Loom-temple.....	G. Park and J. H. McNab.....	435,112	June 30	3053	776	55	1758
Loom-temple.....	W. H. Sadler.....	457,495	Aug. 11	954	242	56	717
Loom-temple.....	E. S. Stimpson.....	456,916	July 28	2614	686	56	521
Loom-temple. Thread-cutting attachment for.....	E. S. Stimpson.....	464,203	Dec. 1	311	75	57	1192
Loom. Terry.....	F. Leake.....	454,367	June 16	1775	462	55	1502
Loom warp-beam.....	A. Nimmo.....	460,343	Sept. 29	2834	705	56	1641
Loom warp stop-motion.....	C. I. Kane.....	446,100	Feb. 10	962	236	54	706
Loom weft-fork.....	P. Ensling.....	446,094	Feb. 10	952	234	54	704
Loom weft-fork.....	J. H. Knowles.....	445,627	Feb. 3	171	45	54	545
Loom weft-fork.....	L. Levenson.....	453,412	June 2	375	97	55	1218
Loom weft stop-motion.....	A. F. Devigne and J. P. Durand.....	449,283	Mar. 31	3248	822 823	54	1770
Loom weft stop-motion.....	F. Lacey.....	459,841	Sept. 22	2055	517	56	1486
Loom weft stop-motion.....	W. Lapworth.....	445,147	Jan. 20	1883	486 487	54	383
Loom weft stop-motion.....	G. Park and J. E. Goddard.....	463,372	Nov. 17	1840	481	57	924
Looms. Doup-heddle for.....	R. Wharton.....	456,180	July 31	1384	367	56	282
Looms for weaving. Picking-motion of.....	J. and A. Moss.....	452,849	May 26	2264	568	55	1029
Looms for weaving wire. Take-up and let-off mechanism for.....	C. S. Strowbridge.....	446,035	Feb. 10	860	209	54	687
Looms for weaving with short wefts. Automatic feeding attachment for.....	I. Lindsley.....	456,973	Aug. 4	78	19	56	548
Looms. Friction let-off device for.....	O. W. Schaum.....	452,021	May 12	896	230	55	755
Looms. Harness-lever for.....	G. F. Hutchins.....	453,302	June 2	184	50	55	1182
Looms. Heddle-controlled stop-motion for.....	J. F. Kerstan.....	462,927	Nov. 10	1142	295	57	780
Looms. Lay-motion for.....	G. F. Hutchins.....	453,717	June 9	855	221	55	1317
Looms. Picker-stick check for.....	H. A. Williams.....	448,309	Mar. 17	1713	434	54	1463
Looms. Pile-wire for.....	G. Segsneider.....	464,043	Dec. 1	54	15	57	1147
Looms. Pitman-connection for.....	E. Wright.....	444,738	Jan. 13	1194	309	54	242
Looms. Race-board and rest-board for.....	W. E. Sharples.....	448,374	Mar. 17	1818	456	54	1482
Looms. Reed for.....	F. Ott.....	444,133	Jan. 6	256	62	54	52
Looms. Spool-holding bracket for.....	O. W. Schaum.....	445,514	Jan. 27	2434	632	54	498
Looms. Strap for connecting pickers with picker-sticks of.....	C. E. Farr.....	454,641	June 23	2227	573	55	1593
Looms. Take-up mechanism for narrow-ware.....	W. Wattie.....	454,961	June 30	2769	706	55	1703

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Loop and clamp. Suspension.	P. A. Harris.	446,206	Feb. 10	1148	281	54	739
Loop-switch.	W. M. Goodridge.	455,747	July 14	740	195	56	151
Lorgnette or opera-glasses.	J. Green.	458,734	Sept. 1	283	69	56	1120
Losses by bad debts. Means for securing against excessive	L. Maybaum.	465,485	Dec. 22	2359	{ 604 605 }	{ 57 57 }	1613
Lounge.	J. Johnson.	465,180	Dec. 15	1874	475	57	1509
Lounge.	J. R. Kidder.	452,971	May 26	2470	625	55	1068
Lounge.	C. Mee.	446,874	Feb. 24	2327	554	54	976
Lounge.	R. S. Wright.	446,243	Feb. 10	1232	391	54	756
Low-water alarm.	H. L. Hildreth.	446,453	Feb. 17	1573	387	54	837
Low-water alarm.	F. St. Clair.	465,767	Dec. 22	2607	719	57	1699
Low-water alarm.	N. J. Tilghman.	459,919	Sept. 22	2187	549	56	1510
Low-water alarm and boiler-feeder.	W. D. McLaughlin.	458,794	Sept. 1	368	89	56	1136
Lubricant.	E. W. Cooke.	454,588	June 23	2130	.....	55	1577
Lubricant.	E. W. Cooke.	455,012	June 30	2875	.....	55	1721
Lubricant.	E. W. Cooke.	455,013	June 30	2876	.....	55	1724
Lubricant.	A. Grund.	449,849	Apr. 7	315	.....	55	63
Lubricant.	A. Sommer.	461,513	Oct. 20	1591	.....	57	320
Lubricant.	F. B. Torrey.	460,410	Sept. 29	2925	731	56	1658
Lubricant block.	W. Friend.	445,988	Feb. 10	786	191	54	675
Lubricants. Reservoir for.	G. H. Ward.	458,007	Aug. 18	1780	465	56	884
Lubricating composition. Self.	J. D. Brown.	453,961	June 9	1182	308	55	1382
Lubricating compound.	W. Brinck.	444,626	Jan. 13	1005	.....	54	208
Lubricating device.	G. T. Reiss.	447,015	Feb. 24	2464	613	54	1018
Lubricating device.	J. E. Totman and M. Ericksen.	461,002	Oct. 13	714	184	57	146
Lubricating purposes. Incombustible waste for.	R. R. Graf.	445,889	Feb. 3	615	.....	54	633
Lubricator.							
See Air-cylinder lubricator.	Journal-box lubricator.						
Automatic lubricator.	Pulley-lubricator.						
Self-acting lubricator.	Saw-lubricator.						
Sight-feed lubricator.	Self-acting lubricator.						
Truck-lubricator.	Truck-lubricator.						
Valve-lubricator.	Valve-lubricator.						
Wheel-lubricator.	Wheel-lubricator.						
Lubricator.	E. D. Bangs.	456,714	July 28	2260	599	56	457
Lubricator.	T. S. Brown.	463,416	Nov. 17	1915	500	57	938
Lubricator.	J. Clark.	465,344	Dec. 15	2139	548	57	1559
Lubricator.	J. Cockfield.	461,382	Oct. 13	1312	331	57	261
Lubricator.	A. C. Ellithorpe.	452,101	May 12	1062	268	55	782
Lubricator.	C. M. Everest.	456,233	July 21	1475	{ 392 393 }	{ 56 56 }	298
Lubricator.	J. J. Paul.	445,013	Jan. 20	1669	428	54	342
Lubricator.	W. D. Fitzgerald.	458,450	Aug. 25	2489	605	56	1025
Lubricator.	A. Hendey.	462,863	Nov. 10	1025	265	57	758
Lubricator.	K. A. Jakobson.	459,349	Sept. 8	1260	310	56	1318
Lubricator.	J. Jørgensen.	454,999	June 30	2855	726	55	1720
Lubricator.	A. Krautter.	447,956	Mar. 10	1129	{ 283 284 }	{ 54 54 }	1339
Lubricator.	J. F. Lonergan.	453,013	May 26	2537	642	55	1081
Lubricator.	E. Lunkenheimer.	464,306	Dec. 1	479	115	57	1226
Lubricator.	W. F. Mattes and J. F. Lewis.	456,422	July 21	1783	472	56	356
Lubricator.	J. F. McCanna.	453,372	June 2	295	78	55	1203
Lubricator.	E. McCoy.	465,875	Dec. 29	2977	761	57	1741
Lubricator.	A. McNett.	458,813	Sept. 1	395	95	56	1141
Lubricator.	T. B. McNiece and W. H. Bloom.	449,634	Mar. 31	3860	966	54	1883
Lubricator.	W. Mieding.	464,799	Dec. 8	1230	306	57	1378
Lubricator.	W. P. Miller.	448,785	Mar. 24	2481	620	54	1616
Lubricator.	H. Myers.	452,759	May 19	2130	536	55	995
Lubricator.	J. Powell.	463,320	Nov. 17	1750	{ 458 459 }	{ 57 57 }	907
Lubricator.	G. C. Pyle.	450,424	Apr. 14	1190	290	55	233
Lubricator.	G. T. Reiss.	452,318	May 12	1412	350	55	848
Lubricator.	N. Seibert.	465,679	Dec. 22	2680	{ 623 624 }	{ 57 57 }	1673
Lubricator.	S. E. Smith.	464,443	Dec. 1	669	164	57	1262
Lubricator.	F. P. Unger.	457,683	Aug. 11	1228	{ 315 316 }	{ 56 56 }	771
Lubricator.	J. Wood.	446,049	Feb. 10	882	215	54	692
Lubricator-clip.	O. W. Griffiths.	464,119	Dec. 1	166	41	57	1169
Lumber. Apparatus for handling and loading.	C. A. Goodyear.	462,312	Nov. 3	154	39	57	580
Lumber-boom.	A. F. Wiley.	445,107	Jan. 20	1815	468	54	370
Lumber-carrier.	A. T. Kelnber.	448,766	Mar. 24	2453	613	54	1610
Lumber-clamp.	W. A. Madden.	458,703	Sept. 1	323	79	56	1127
Lumber-edging machine.	J. S. Miller.	462,213	Oct. 27	2700	680	57	538
Lumber for veneers, &c. Compound.	F. Koskul.	454,362	June 16	1768	460	55	1501
Lumber-piling machine.	H. Daniels.	461,323	Oct. 13	1201	306	57	240
Lumber-sorter.	J. A. Bel.	451,205	Apr. 28	2438	602	55	496
Lumber-stacker.	H. W. Clark.	457,611	Aug. 11	1124	{ 287 288 }	{ 56 56 }	751
Lupuline. Apparatus for extracting.	J. F. Theurer.	453,678	June 9	785	202	55	1304
Macaroni.	J. F. Gent.	466,230	Dec. 29	3566	.....	57	1854
Machine-wrench.	M. Martin.	456,830	July 28	2455	647	56	493
Machinery. Apparatus for the prevention of accidents to.	R. Hitchen, J. T. Pearson, and T. Richmond.	444,357	Jan. 6	583	{ 149 150 }	{ 54 54 }	116
Machinery. Brake and starter for.	C. R. Pratt.	444,102	Jan. 6	192	47	54	40
Machinist's gage.	N. B. Taylor.	465,397	Dec. 15	2225	571	57	1577
Machinist's gage and gage-holder.	C. M. Grannis.	451,123	Apr. 28	2283	565	55	468
Magazine-camera.	T. S. Wiles.	464,783	Dec. 8	1204	{ 299 300 }	{ 57 57 }	1373
Magnet. Electro.	C. E. Lipe.	452,003	May 12	868	221	55	750
Magnet. Electro.	O. E. Lundstedt.	464,198	Dec. 1	300	73	57	1191
Magnet. Electro.	F. A. Wessel.	449,358	Mar. 31	3394	854	54	1794
Magnet for dynamos or motors. Field.	C. E. Kammeyer.	464,027	Dec. 1	35	10	57	1143

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				Spec.	Draw.	Vol.	Page.
Magnetic separation	H. C. Townsend	453,317	June 2	213	57	55	1188
Magnetic separator	H. G. Fiske	455,984	July 14	1096	288	56	217
Magnetic separator	H. G. Fiske	456,507	July 21	1916	507	56	382
Magnetic separator	D. E. Lain	456,622	July 28	2113	558	56	428
Magnetic separator	R. R. Moffatt	449,610	Mar. 31	3798	953	54	1872
Magnetic separator	J. Wenström	455,809	July 14	843	222	56	170
Mail-bag	W. F. Beasley	463,349	Nov. 17	1801	471	57	916
Mail-bag	H. L. Boyle	459,864	Sept. 22	2096	526	56	1494
Mail-bag	E. J. Brooks	456,397	July 21	1740	459	56	348
Mail-bag	J. Hanauer	459,631	Sept. 15	1733	435	56	1415
Mail-bag	G. Horn	464,772	Dec. 8	1189	295	57	1370
Mail-bag	C. F. Lighthouse	459,869	Sept. 22	2103	529	56	1495
Mail-bag	S. D. Locke	459,875	Sept. 22	2114	531	56	1497
Mail-bag catcher	J. A. Kellogg	458,173	Aug. 25	2026	525	56	940
Mail-bag catcher	E. Leach	452,711	May 19	2044	513	55	978
Mail-bag catcher	G. W. Smith	458,960	Sept. 1	639	157	56	1190
Mail-bag catcher	H. and C. Soggs	454,387	June 16	1808	471	55	1508
Mail-bag catcher	S. Wampler	456,665	July 28	2182	578	56	442
Mail-bag catcher	C. B. Winsor and G. W. Cummings	447,094	Feb. 24	2596	644	54	1043
Mail-bag catcher	A. B. Wood	452,300	May 12	1373	342	55	841
Mail-bag-catching device	E. M. Van Hoeson	446,550	Feb. 17	1720	422	54	866
Mail-bag crane	L. P. Greene	463,741	Nov. 24	2432	638	57	1045
Mail-bag deliverer	C. T. Anderson	459,190	Sept. 8	1013	248	56	1269
Mail-bag fastening	C. T. Anderson	458,770	Sept. 1	332	80	56	1129
Mail-bag fastening	O. P. Callaban	444,289	Jan. 6	469	128	54	97
Mail-bag fastening	S. K. Davis, A. F. Stockley, and W. I. Barnett	446,770	Feb. 17	2049	510	54	931
Mail-bag fastening	R. T. Smith	452,148	May 12	1137	288	55	796
Mail-bag lock	J. A. Martin	457,958	Aug. 18	1700	445	56	870
Mail-bag locking device	J. Hellings	459,331	Sept. 8	1229	302	56	1312
Mail-bags. Device for catching and delivering	W. Burks	448,709	Mar. 24	2360	591	54	1593
Mail-box	W. F. Gray	465,697	Dec. 22	2704	689	57	1678
Mail-box. Foldable	J. F. Deeves	452,071	May 12	1005	254	55	772
Mail-matter. Machine for marking	F. N. Ethridge	449,363	Mar. 31	3411	857	54	1797
Mail-matter. Machine for marking or printing	C. Bickford	464,704	Dec. 8	1081	267	57	1350
Mail or express bag	C. D. Sillock	453,404	June 2	347	90	55	1213
Mail-pouch	P. Crosson	450,309	Apr. 14	998	247	55	198
Mail-pouch	F. D. Ford	455,393	July 7	152	39	56	33
Mail-pouch	J. A. Miller	459,761	Sept. 22	1931	487	56	1461
Mail-pouch	J. E. Wells	458,955	Sept. 1	629	155	56	1188
Mail-pouch deliverer	A. Kimber	460,057	Sept. 22	2383	595	56	1546
Mail-pouch deliverer	A. Kimber	460,932	Oct. 6	612	156	57	119
Mail-pouch fastener	J. A. Pierce	462,774	Nov. 10	877	230	57	728
Mail-sack crane	J. F. Mains	447,471	Mar. 3	347	86	54	1183
Mail-sack crane	J. F. Mains	463,159	Nov. 17	1495	388	57	857
Mail-sack cranes. Sack-holder for	J. F. Mains	463,158	Nov. 17	1494	387	57	857
Mail-sack dropper	J. F. Mains	447,470	Mar. 3	346	86	54	1183
Mailing-case	E. J. Kraetzer	460,918	Oct. 6	595	150	57	116
Mailing-labels. Device for affixing	O. T. Dozier	465,092	Dec. 15	1721	437	57	1482
Mailing-machine	G. B. Baer	446,702	Feb. 17	1945	485	54	909
Mailing-machine	W. P. Barnes, I. S. Murray, and L. Lucia	459,387	Sept. 15	1329	333	56	1341
Mailing-machine	W. H. Sanders	461,277	Oct. 13	1132	289	57	225
Mailing-machine	S. B. Whiteside	446,495	Feb. 17	1634	400	54	850
Main or crank pins. Device for truing up	R. C. Nugent	460,884	Oct. 6	540	136	57	106
Mallet	G. A. Colton	460,115	Sept. 29	2476	618	56	1572
Malt liquor. Making	J. Griffiths	447,131	Feb. 24	2651	658	54	1054
Malt. Machine for cooling, scouring, and cleaning	R. J. Belbringer	459,777	Sept. 22	1954	493	56	1465
Malt. Making quick	M. L. Mowrer	461,034	Oct. 13	762	157	57	154
Malt. Manufacturing	F. W. Wiesebroek	456,872	July 28	2531	665	56	505
Malt or grain. Apparatus for stirring and turning over	J. Sandt and H. Sturm	465,209	Dec. 15	1910	484	57	1517
Malting. Apparatus for pneumatic	J. Kintze	458,174	Aug. 25	2027	526	56	940
Malting-drums, beer-vats, and similar structures. Attachment for	F. B. Giesler	461,187	Oct. 13	983	252	57	195
Man-hole cover	R. Munroe	446,151	Feb. 10	1055	259	54	723
Man-hole fitting for wooden vessels	W. Heiser	457,777	Aug. 18	1387	358	56	811
Mandolin	F. E. Cole	452,465	May 19	1671	419	55	905
Mandrel. Expanding	J. D. O. Dubrule	447,667	Mar. 3	629	156	54	1237
Mandrel. Expanding	J. W. Grantland	465,075	Dec. 15	1685	429	57	1475
Mandrel. Expansible	R. Smith	452,854	May 26	2271	570	55	1030
Mandrel. Expansible	E. J. Stewart	458,351	Aug. 25	2335	570	56	997
Manger	F. O. Worthley	459,032	Sept. 8	762	185	56	1221
Mangle	A. T. Hagen and D. M. Cooper	451,479	May 5	50	13	55	588
Manicure implement	G. Dement	466,076	Dec. 29	3329	850	57	1809
Mantles for transportation. Strengthening	C. A. von Welsbach	463,470	Nov. 17	1991	57	954	
Manual motor	D. R. Sheen	452,085	May 12	1031	261	55	776
Manure fork and scraper	J. D. Skone	460,997	Oct. 13	710	183	57	145
Manure-spreader	D. B. Merrell	448,884	Mar. 24	2631	661	54	1644
Map and shade protector	F. J. Lemm	455,473	July 7	274	70	56	55
Map-case	L. Ludgin	464,030	Dec. 1	38	11	57	1144
Map-holder	W. F. Semple	446,021	Feb. 10	831	200	54	682
Map or chart holder. Adjustable	A. L. Eilar	454,126	June 16	1416	370	55	1434
Map or chart stand. Adjustable	H. E. Hayes	461,755	Oct. 20	1972	488	57	391
Map or sheet case	E. B. Strong	447,983	Mar. 10	1178	298	54	1348
Marble molding and dishing machinery combined	E. L. Conkey	461,094	Oct. 13	843	218	57	169
Marble or other material. Apparatus for tooling	J. H. Edson	466,161	Dec. 29	3464	825	57	1835

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Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Marble-roller	F. E. Phillips	454,603	June 23	2167	560	55	1583
Marble-shooter	C. E. Wilkinson and G. O. Wendel ..	464,407	Dec. 1	621	153	57	1252
Marble slabs. Machine for cutting oval holes in	A. H. Miller	459,787	Sept. 23	1969	496	56	1468
Marbles. Die for the manufacture of	M. Lang	449,256	Mar. 31	3205	809	54	1763
Marbles from plastic material. Machine for molding	S. C. Dyke	463,418	Nov. 17	1316	501	57	939
Marbles. Machine for molding	A. L. Dyke	451,855	May 5	616	153	55	696
Marbled surfaces. Producing	S. C. Madsen	458,764	Sept. 1	324	.....	56	1127
Marine governor	C. Stensland	450,777	Apr. 21	1750	424	55	357
Marker. Land-	W. D. Hervey	463,510	Nov. 17	2039	{ 534 535 }	57	963
Marking and canceling machine. Post-	T. Leavitt	464,329	Dec. 1	511	{ 122 123 }	57	1231
Marking folded woven goods with trade-marks, &c. Machine for	J. Duxbury	448,212	Mar. 17	1534	393	54	1428
Marking letters to indicate that they have been copied.	F. D. Earl	458,225	Aug. 25	2116	549	56	957
Marking-pot	F. S. Ketchum	457,120	Aug. 4	285	75	56	588
Mashing. Process of	L. Mandl	461,684	Oct. 20	1855	460	57	369
Mask	A. J. Cumnock	460,301	Sept. 29	2764	688	56	1628
Mask. Face	B. F. Lamb	450,515	Apr. 14	1319	324	55	260
Mask for vaporizing the skin	M. Burgoyne	461,530	Oct. 20	1602	392	57	322
Masons. Line-holder for brick and stone	H. A. Kochler	461,021	Oct. 13	743	192	57	151
Massage apparatus.	A. Kahn	448,883	Mar. 24	2630	661	54	1643
Massage-kneader. Electric magnetic	D. and C. Lichtenstadt ..	444,597	Jan. 13	969	251	54	200
Mast fids. Self-acting fastening for top.	C. de Knorring	463,157	Nov. 17	1493	327	57	857
Mast-hoop	C. S. Mott	453,585	June 2	638	163	55	1268
Mast. Jury-	A. McDougall	456,587	July 28	2051	{ 542 543 }	56	416
Mast-support for vessels. Adjustable	J. T. Matthews	457,323	Aug. 4	639	168	56	652
Mat:							
See Door-mat. Self-inflating mat.							
Picture-mat. Wire mat.							
Mat	J. Mills	463,702	Nov. 24	2378	622	57	1035
Mats or gratings. Machine for making	H. Beishelm	448,706	Mar. 24	2351	589	54	1592
Match-box	R. P. Brown and E. L. Bailey ..	454,636	June 23	2222	572	55	1592
Match-box	J. J. Duane	460,118	Sept. 29	2481	619	56	1573
Match-box	F. C. Graves	453,383	June 2	312	81	55	1206
Match-box	E. Junginger	457,560	Aug. 11	1045	268	56	737
Match-box and holding-frame therefor	J. Forshaw	446,336	Feb. 10	1378	336	54	785
Match-box holder	A. A. Low	459,870	Sept. 22	2104	529	56	1495
Match-boxes. Machine for filling	F. Lundgren	448,445	Mar. 17	1934	487	54	1504
Match-lighter	H. E. Moss	455,348	July 7	72	20	56	18
Match-machine	C. R. E. Bell	447,931	Mar. 10	1083	{ 271 272 273 }	54	1330
Match-making machine	C. J. Donnelly	450,405	Apr. 14	1160	283	55	228
Match-racks. Machine for filling	G. H. Millen, D. Casey, and J. H. Mantion. ..	449,376	Mar. 31	3431	863	54	1801
Match-safe. Pocket	C. F. Midman	464,405	Dec. 1	618	152	57	1251
Matches from dipping-racks. Machine for removing. ..	G. H. Millen, D. Casey, and J. H. Mantion. ..	449,377	Mar. 31	3433	864	54	1802
Matching-machine	C. J. L. Meyer	462,097	Oct. 27	2507	{ 623 624 }	57	502
Matching-machine	C. J. L. Meyer	462,098	Oct. 27	2512	624	57	504
Matrices, type, &c. Mechanism for justifying.	P. T. Dodge	444,337	Jan. 6	555	143	54	111
Matrix-board	C. M. Gage	465,847	Dec. 29	2938	751	57	1734
Matrix-making and stereotyping machine.	F. A. Johnson	463,388	Nov. 17	1865	{ 487 488 }	57	929
Matrix-making machine.	G. Calder, Jr	444,124	Jan. 6	234	56, 57	54	48
Matrix-making machine.	G. Calder, Jr	444,125	Jan. 6	237	58	54	49
Matrix-making machine.	G. Calder, Jr	445,040	Jan. 20	1713	{ 440 441 }	54	350
Matrix-making machine	T. C. Hargrave	447,449	Mar. 3	291	74	54	1172
Matrix-making machine.	C. L. Redfield	448,924	Mar. 24	2789	{ 705 706 }	54	1675
Matrix-making machine. Electric	T. C. Hargrave	417,321	Mar. 3	61	17	54	1129
Matrix-making machine. Electrical	W. W. Street	457,752	Aug. 11	1350	349	56	798
Matrix-making machines. Alignment-bar for	S. C. Beckwith and W. W. Street ..	455,732	July 14	720	189	56	147
Matrix-making machines. Escapement device for	C. L. Redfield	448,587	Mar. 17	2140	537	54	1544
Matrix-making machines. Type-die for	C. L. Redfield	454,066	June 16	1333	348	55	1418
Matrix-making or type-setting machine	H. Lee	447,135	Feb. 24	2678	{ 664 665 666 667 668 669 }	54	1058
Matrix-making or type-setting machine	H. Lee and E. Lebrun	447,134	Feb. 24	2658	{ 661 662 663 664 665 }	54	1055
Mattress-frame and bedstead	I. Chorlton and G. L. Scott	448,209	Mar. 17	1529	{ 391 392 }	54	1428
Mattress-press	E. C. Ridley	456,162	July 21	1357	360	56	277
Mattress-ventilator	G. H. Hildreth	460,439	Sept. 29	2964	741	56	1665
Mattress. Woven-wire	A. Allgoever	451,704	May 5	398	97	55	655
Mattress. Woven-wire	T. Burdick	460,712	Oct. 6	293	72	57	57
Mattress. Woven-wire	W. S. Seymour	446,193	Feb. 10	1126	{ 275 276 }	54	734
Mattresses, pillows, &c. Manufacture of	L. Ashby	454,445	June 23	1904	497	55	1535
Measure and heater. Combined milk	A. J. Howe	451,444	Apr. 28	2812	695	55	569
Measure. Bottomless	J. C. Dawes	457,498	Aug. 11	958	243	56	718
Measure. Flexible scale	A. S. Adler	448,805	Mar. 24	2508	628	54	1621
Measure. Liquid	F. W. Downham and B. M. Blauvelt. ..	463,496	Nov. 17	2021	530	57	959
Measure. Lumber-	E. N. Barber	448,291	Mar. 17	1680	{ 426 427 }	54	1456

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. to	Vol.	Page.
Measure. Scale.....	E. T. Burrowes.....	449,034	Mar. 24	2854	726	54	1688
Measure. Speed.....	J. W. Menzie.....	455,571	July 7	440	117	56	85
Measure. Tailor's.....	A. Liebl.....	457,124	Aug. 4	290	76	56	589
Measure. Tailor's.....	P. A. Smith.....	460,282	Sept. 29	2739	681 682	56	1623
Measure. Tailor's.....	J. Walkio.....	452,090	May 12	1035	262 263	55	777
Measures. Cabinet for molasses.....	S. B. Kersey.....	447,643	Mar. 3	603	148 149	54	1231
Measures. Counting device for linear.....	R. O. Ostmann.....	452,981	May 26	2489	630	55	1072
Measurements. Apparatus for determining minute.	W. A. Rogers.....	449,175	Mar. 31	3072	776	54	1738
Measurements of time, space, or quantity. Apparatus for recording	H. Abbott.....	449,192	Mar. 31	3106	783 784	54	1744
Measurer and bagger. Grain.....	G. J. Johnson.....	460,580	Oct. 6	58	14	57	13
Measurer. Automatic grain.....	J. Dietz.....	455,744	July 14	735	194	56	150
Measurer. Grain.....	J. B. Bartholomew.....	454,898	June 30	2643	678	55	1679
Measurer. Grain.....	J. Hallahan.....	460,577	Oct. 6	53	13	57	12
Measurer. Rotating grain.....	J. W. Kershaw, Jr.....	462,560	Nov. 3	540	132	57	654
Measuring alternating electric currents.....	O. B. Shallenberger.....	449,001	Mar. 24	2805	709 710 711	54	1678
Measuring and drawing instrument.....	C. W. James.....	453,906	June 9	1109	290	55	1366
Measuring and folding dress goods, &c. Device for.	J. M. Talley.....	464,904	Dec. 8	1374	345 346	57	1406
Measuring and recording apparatus. Electric-current	W. Thomson.....	463,558	Nov. 17	2127	561	57	979
Measuring apparatus. Tailor's.....	R. G. Wolff.....	456,184	July 21	1390	368 369	56	283
Measuring-can.....	F. C. H. Strasburger.....	457,595	Aug. 11	1103	281	56	747
Measuring can for liquids. Self.....	F. Krieckhans.....	460,251	Sept. 29	2677	667	56	1611
Measuring device for bottles.....	E. Buchan.....	465,750	Dec. 22	2784	711	57	1694
Measuring device for powdered materials.....	B. R. Foster.....	464,823	Dec. 8	1261	315	57	1384
Measuring device for tanks. Liquid.....	W. H. Beecher.....	459,955	Sept. 22	2332	560	56	1518
Measuring device. Liquid.....	G. M. Bellasis.....	460,423	Sept. 29	2943	736	56	1661
Measuring electric currents.....	E. Thomson.....	456,172	July 21	1368	364	56	279
Measuring electric currents. Instrument for.....	H. H. Cunynghame, F. L. Rawson, and O. E. Woodhouse.	450,221	Apr. 14	846	212	55	170
Measuring implement. Tailor's.....	L. G. Ericson.....	465,252	Dec. 15	1974	504 505	57	1530
Measuring-instrument. Electric.....	E. Weston.....	444,805	Jan. 13	1291	335	54	261
Measuring instrument. Electrical.....	F. C. Wagner.....	453,681	June 9	789	203	55	1305
Measuring-instrument. Electrical.....	E. Weston.....	444,804	Jan. 13	1289	334 335	54	260
Measuring-instrument. Electrical.....	E. Weston.....	446,489	Feb. 17	1622	397	54	847
Measuring-instrument. Electrical.....	E. Weston.....	446,491	Feb. 17	1626	398	54	848
Measuring-instrument. Electrical.....	E. Weston.....	446,492	Feb. 17	1627	398	54	848
Measuring-instrument. Electrical.....	E. Weston.....	446,493	Feb. 17	1629	399 400	54	849
Measuring-instrument. Electrical.....	E. Weston.....	446,494	Feb. 17	1632	400	54	850
Measuring-instrument. Electrical.....	E. Weston.....	452,326	May 12	1431	353 354	55	851
Measuring-instrument for tunnels.....	H. R. M. Thom.....	449,920	Apr. 7	413	103	55	81
Measuring-jacket. Garment.....	W. G. Yenner.....	458,363	Aug. 25	2190	535	56	969
Measuring-machine. Automatic.....	F. W. Gaede.....	448,018	Mar. 10	1235	314	54	1359
Measuring machine. Cloth.....	J. B. Edmand.....	462,940	Nov. 10	1158	300	57	783
Measuring machine. Cloth.....	O. F. Heath.....	444,374	Jan. 6	578	142	54	115
Measuring machine. Cloth.....	H. Hebert.....	464,869	Dec. 8	1327	333	57	1398
Measuring machine. Cloth.....	A. I. Mitchell.....	451,697	May 5	388	95	55	653
Measuring machine. Cloth.....	J. Reading.....	448,368	Mar. 17	1808	456	54	1481
Measuring machine. Cloth.....	C. Tuxbury.....	452,816	May 26	2216	556	55	1020
Measuring machine. Foot.....	A. S. Adler.....	447,098	Feb. 24	2600	646	54	1044
Measuring machine. Grain.....	R. R. Howell.....	459,729	Sept. 15	1881	473	56	1444
Measuring milk-can.....	R. Eagan.....	444,903	Jan. 20	1487	324	54	307
Measuring-spoon.....	M. Scheid.....	464,393	Dec. 1	601	148	57	1248
Measuring-tank.....	F. A. Henninger and H. R. Dinwiddie.	455,043	June 30	2928	745	55	1734
Measuring-tank.....	C. W. Proctor.....	463,919	Nov. 24	2715	705	57	1098
Measuring the units of work done by machines. Instrument for	H. C. Behr.....	466,214	Dec. 29	3541	906 907	57	1850
Measuring-vessel.....	H. W. Laun.....	446,259	Feb. 10	1257	306	54	760
Measuring-vessel.....	D. A. McGee.....	453,936	June 9	1151	300	55	1375
Measuring-vessel.....	C. W. Proctor.....	450,494	Apr. 14	1291	316	55	254
Measuring-vessel.....	L. D. Warnock.....	445,483	Jan. 27	2377	618	54	489
Measuring-vessel for filling ink-wells	R. Bradbury and D. Winterbottom.....	455,734	July 14	724	190	56	148
Measuring vessel. Liquid.....	C. A. White.....	455,554	July 7	412	109	56	80
Measuring vessel. Liquid.....	D. E. Wolff.....	450,383	Apr. 14	1125	275	55	221
Meat and vegetable slicer.....	I. Mackey.....	459,125	Sept. 8	917	221	56	1251
Meat-chopping apparatus.....	H. Leineweber.....	455,022	June 30	2889	734	55	1726
Meat-chopping machine.....	W. H. Ashton.....	454,699	June 23	2313	595	55	1611
Meat-chopping machine.....	J. Sheargren.....	445,823	Feb. 3	521	125	54	613
Meat-chopping machine.....	L. Steigert.....	459,450	Sept. 15	1431	359	56	1360
Meat-cutter.....	P. and W. Deissler.....	464,184	Dec. 1	268	66, 67	57	1186
Meat-cutter.....	H. W. Hneffelman.....	451,273	Apr. 28	2555	629	55	520
Meat-cutter.....	S. T. Jull.....	449,585	Mar. 31	3763	945	54	1865
Meat-cutter.....	C. V. Pugh.....	457,212	Aug. 4	440	212	56	615
Meat-cutter.....	E. Renner and J. Hofbauer.....	454,527	June 23	2029	525	55	1558
Meat-cutter.....	T. P. Ricks.....	463,255	Nov. 17	1647	429	57	887
Meat-cutter. Rocking.....	J. Tritz.....	449,451	Mar. 31	3563	898	54	1827
Meat-holder.....	R. W. Randle.....	446,268	Feb. 10	1272	312	54	763
Meat or vegetable cutter, fruit-press, &c.	A. Nittinger, Sr.....	447,581	Mar. 3	508	125	54	1212
Meat-roaster.....	J. Strond.....	453,418	June 2	383	99	55	1219
Meat-slicer.....	R. Brown.....	453,991	June 9	1227	319	55	1390
Meat-tenderer.....	O. L. Cady.....	454,330	June 16	1718	448	55	1492
Meat-tenderer.....	J. L. Pugate.....	456,670	July 28	2191	580	56	444
Meat-tenderer.....	W. P. Ginter.....	448,482	Mar. 17	1991	499	54	1515

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Meats. Apparatus for extracting salt from.....	G. F. Meyer.....	444,500	Jan. 13	823	215	54	172
Mechanical motion.....	P. Blackie and J. Nisbet.....	458,746	Sept. 1	298	73	56	1122
Mechanical motor.....	J. B. Silliman.....	462,817	Nov. 10	950	247	57	744
Mechanical movement.....	G. M. Allen.....	463,977	Nov. 24	2802	726	57	1115
Mechanical movement.....	G. W. Baker.....	446,318	Feb. 10	1349	329	54	779
Mechanical movement.....	A. L. Colburn.....	452,991	May 26	2504	{ 634 635 }	{ 55 }	1074
Mechanical movement.....	F. Coomer.....	463,100	Nov. 10	1390	360	57	830
Mechanical movement.....	P. Diehl.....	465,363	Dec. 15	2176	557	57	1567
Mechanical movement.....	L. S. Edleblute.....	451,113	Apr. 28	2270	562	55	466
Mechanical movement.....	L. S. Edleblute.....	451,114	Apr. 28	2274	562	55	466
Mechanical movement.....	W. C. Eich.....	448,511	Mar. 17	2028	508	54	1522
Mechanical movement.....	J. A. Fennell.....	455,248	June 30	3269	829	55	1800
Mechanical movement.....	I. F. Good.....	453,993	June 9	1105	229	55	1366
Mechanical movement.....	R. L. Hattersley and J. Hill.....	448,713	Mar. 24	2370	{ 592 593 }	{ 54 }	1595
Mechanical movement.....	R. L. Hattersley and J. Hill.....	448,714	Mar. 24	2371	593	54	1595
Mechanical movement.....	G. Johnson.....	455,251	June 30	3279	831	55	1801
Mechanical movement.....	W. Koch.....	458,302	Aug. 25	2253	550	56	981
Mechanical movement.....	W. Koch.....	458,303	Aug. 25	2255	550	56	981
Mechanical movement.....	K. C. Kunkle.....	447,075	Feb. 24	2572	638	54	1038
Mechanical movement.....	A. M. Lane.....	462,010	Oct. 27	2381	590	57	479
Mechanical movement.....	A. M. Leslie.....	444,757	Jan. 13	1221	317	54	247
Mechanical movement.....	H. D. Mentzel.....	447,964	Mar. 10	1140	{ 286 287 288 }	{ 54 }	1340
Mechanical movement.....	G. C. Moore.....	454,539	June 23	2051	530	55	1563
Mechanical movement.....	J. Morningstar.....	450,914	Apr. 21	1966	482	55	397
Mechanical movement.....	S. E. Nutting.....	454,658	June 23	2252	578	55	1597
Mechanical movement.....	J. H. Peterson.....	453,207	June 2	38	11	55	1156
Mechanical movement.....	T. Pnetz, Jr.....	441,016	Jan. 6	51	14	54	13
Mechanical movement.....	D. H. Reimers.....	465,948	Dec. 29	3100	793	57	1765
Mechanical movement.....	J. Z. Roraback.....	449,334	Mar. 31	3349	844	54	1787
Mechanical movement.....	G. O. Schneider.....	459,208	Sept. 8	1045	254	56	1275
Mechanical movement.....	N. J. and R. S. Skaggs.....	461,943	Oct. 27	2288	566	57	461
Mechanical movement.....	A. W. Sternke.....	465,003	Dec. 15	1566	398	57	1454
Mechanical movement.....	W. Suess.....	452,654	May 19	1956	{ 490 491 }	{ 55 }	960
Mechanical movement.....	A. Warth.....	444,283	Jan. 6	479	122	54	95
Mechanical movement.....	A. Warth.....	444,284	Jan. 6	481	123	54	95
Mechanical movement.....	A. Warth.....	444,285	Jan. 6	483	{ 123 124 124 }	{ 54 }	96
Mechanical movement.....	A. Warth.....	444,286	Jan. 6	485	{ 125 126 126 }	{ 54 }	96
Mechanical movement.....	A. Warth.....	444,287	Jan. 6	486	{ 126 127 127 }	{ 54 }	97
Mechanical movement.....	A. R. Weisz.....	461,723	Oct. 20	1920	475	57	381
Mechanical movement.....	A. B. Wilcox.....	458,347	Aug. 25	2127	568	56	996
Mechanical movement.....	C. H. Williams and T. M. Lash.....	460,736	Oct. 6	325	80	57	64
Mechanical movement.....	N. J. Winlund and E. McSherry.....	450,122	Apr. 7	696	176	55	136
Mechanical movement.....	S. B. Wortmann.....	461,993	Oct. 27	2459	585	57	474
Mechanical movement.....	S. B. Wortmann.....	461,994	Oct. 27	2361	585	57	475
Mechanical power.....	T. J. Webster.....	460,297	Sept. 29	2758	687	56	1626
Medical apparatus. Electrical.....	J. C. Chambers.....	445,636	Feb. 3	184	{ 48 49 50 }	{ 54 }	548
Medical compound.....	G. W. White.....	460,611	Oct. 6	102	...	57	22
Medical induction-coil.....	H. A. Voelkner.....	456,746	July 28	2322	614	56	468
Medical lighting apparatus. Electro.....	P. Ondin and H. O. Kratz-Bonssac.....	455,972	July 14	1080	283	56	214
Medicinal plaster.....	J. H. Osgood.....	446,610	Feb. 17	1798	414	54	882
Medicine. Apparatus for directing the proper administration of.....	E. P. Roberts.....	463,409	Nov. 17	1904	{ 497 498 498 }	{ 57 }	936
Medicine-case.....	L. I. Bodenhamer.....	444,216	Jan. 6	383	95	54	76
(Medicine.) Catarrh remedy.....	L. D. Bailor.....	446,412	Feb. 17	1506	...	54	823
(Medicine.) Cough remedy.....	W. J. Corey.....	446,058	Feb. 10	899	...	54	695
Medicine-dropper.....	F. B. Spooner.....	448,555	Mar. 17	2088	524	54	1534
Medicine-dropper.....	T. C. Weeks.....	446,574	Feb. 17	1752	431	54	872
Medicine-package.....	J. W. Brewster.....	459,865	Sept. 22	2098	526	56	1494
(Medicine.) Remedy for corns, &c.....	A. Robidoux.....	444,601	Jan. 13	973	...	54	201
(Medicine.) Remedy for coughs, &c.....	M. E. Hess.....	445,470	Jan. 27	2355	...	54	485
Melting-furnace.....	W. W. Keys.....	452,794	May 26	2182	{ 546 547 }	{ 55 }	1013
Memorial burial tablet and indicator.....	J. W. Hunt.....	466,074	Dec. 29	3326	849	57	1809
Merry-go-round.....	W. D. Cronin and C. B. Adams.....	445,134	Jan. 20	1854	480	54	378
Message-recording instrument.....	A. Storer.....	460,676	Oct. 6	226	57	37	46
Metal. Apparatus for removing gases from.....	W. F. Duffee and N. B. Wittman.....	448,944	Mar. 21	2717	686	54	1601
Metal. Apparatus for scouring.....	R. Hubbard and J. A. Cole.....	455,045	June 30	2931	746	55	1734
Metal. Apparatus for shaping and ornamenting hollow articles of.....	A. F. Jackson and J. Hewitson.....	451,592	June 23	2138	551	55	1578
Metal articles by electricity. Art of and apparatus for heating.....	E. E. Angell.....	466,131	Dec. 29	3420	{ 875 876 876 }	{ 57 }	1827
Metal articles. Device for knurling the surfaces of.....	G. F. Simonds.....	446,933	Feb. 24	2337	{ 579 580 }	{ 54 }	994
Metal articles. Mechanism for shaping hollow.....	C. R. Lewis.....	455,047	June 30	2934	747	55	1735
Metal articles. Press for shaping and ornamenting hollow.....	T. W. Cress.....	465,836	Dec. 29	2918	747	57	1730
Metal balls. Machine for grinding.....	E. A. Jones.....	455,879	July 14	939	246	56	189
Metal bands on wooden or other articles. Securing.....	E. Thomson.....	455,421	July 7	200	51	56	41
Metal bars, &c. Machine for straightening and polishing.....	W. A. McCool.....	445,571	Feb. 3	79	18, 19	54	527
Metal basket.....	C. C. King.....	458,233	Aug. 25	2129	551	56	959

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Metal beams. Machine for bending or straightening	H. Aiken	453,605	June 9	673	175	55	1283
Metal-bending machine	R. Lavery	450,241	Apr. 14	900	223	55	179
Metal-bending machine	A. M. Tibbits	453,172	May 26	2828	709	55	1134
Metal box	W. H. Atkinson	459,696	Sept. 15	1824	458	56	1434
Metal box	C. J. Hauck, Jr.	448,034	Mar. 10	1254	320	54	1363
Metal can	F. Reiset and G. A. Waeber	449,136	Mar. 31	3019	763	54	1728
Metal capsules. Machine for making	F. W. Perry	447,137	Feb. 24	2686	668	54	1060
Metal. Coating	F. J. Clamer	451,592	May 5	225		55	622
Metal-cutter	H. B. Todd	447,849	Mar. 10	948	237	54	1304
Metal-cutter and punch	W. Smith	450,599	Apr. 14	1436	353	55	282
Metal-cutting machine	W. B. Hammond	460,679	Oct. 6	230	58	57	47
Metal. Die for ornamenting strips of	A. E. Hobson	444,835	Jan. 20	1347	349	54	280
Metal-flanging machine	R. Lavery	450,240	Apr. 14	898	223	55	179
Metal. Galvanizing	H. K. Swiuscoe	461,251	Oct. 13	1092	280	57	219
Metal goods. Machine for finishing	C. S. Moseley	462,671	Nov. 3	606	176 177 178 179 180 181	57	685
Metal joint-fastener	H. J. and J. H. Welteroth	461,154	Oct. 13	928	240	57	185
Metal. Machine for indenting letters or figures in	W. A. Hill and W. F. Foss	452,605	May 19	1878	472 473	55	945
Metal. Machine for spinning circular forms of	F. Mink	451,159	Apr. 28	2348	583 584	55	481
Metal. Melting	A. Greiner	445,056	Jan. 20	1738	447	54	355
Metal. Method of and apparatus for solidifying molten	G. W. Goetz	447,511	Mar. 3	405	99	54	1194
Metal pieces. Apparatus for testing	L. de Place	445,860	Feb. 3	576	140	54	624
Metal-planers. Attachment for	C. H. Myers	446,074	Feb. 10	921	225	54	699
Metal-planing machine	Z. B. Coes	459,393	Sept. 15	1338	336	56	1343
Metal-planing machine	G. A. Gray and E. Richter	447,820	Mar. 10	895	224	54	1294
Metal plate. Ornamental	E. C. Ewing	458,448	Aug. 25	2487	605	56	1025
Metal plates. Apparatus for coating	S. Y. Buckman	451,264	Apr. 28	2534	624 625	55	516
Metal plates. Apparatus for conveying and cooling	H. Aiken	462,962	Nov. 10	1186	307 308	57	789
Metal plates. Table for conveying and cooling	H. Aiken	450,360	Apr. 14	1077	265 266	55	213
Metal post	O. B. Hall	449,777	Apr. 7	205	53	55	42
Metal post	J. M. Larimer	463,317	Nov. 17	1746	457	57	906
Metal. Producing ornamental open-work surfaces on	H. E. Osborn	455,051	June 30	2944	749	55	1737
Metal rods or bars. Making rolled	P. T. Large and J. W. Thomas	450,330	Apr. 14	1034	254	55	205
Metal. Rolls for corrugating and bending	W. J. Turpin	464,403	Dec. 1	616	152	57	1251
Metal-scouring machine	E. O. Goss	450,456	Apr. 14	1230	301	55	241
Metal-shears	C. Pettigrew, H. S. Smith, and F. H. Treat	455,053	June 30	2949	750 751	55	1737
Metal-shears	H. V. Smith	457,405	Aug. 11	804	207	56	690
Metal-slitting machine	C. H. Perkins	449,057	Mar. 24	2889	734	54	1695
Metal-slitting machines. Scrap-cutter for	A. P. Hine	454,353	June 16	1750	455	55	1498
Metal soil-pipe	R. C. Black	465,749	Dec. 22	2782	710 711	57	1694
Metal-straightening machine	J. Coffin	465,348	Dec. 15	2146	549 550	57	1561
Metal strips. Stiffening and increasing the resiliency of	W. H. Watson	458,381	Aug. 25	2386	582	56	1006
Metal structures by electricity. Repairing	E. E. Ries	453,164	May 26	2791	701	55	1128
Metal-turning tool	G. Stroner	450,733	Apr. 21	1678	405	55	343
Metal vessel. Hermetic	C. E. Creecy	457,849	Aug. 18	1509	393	56	831
Metal washers. Machine for making	G. S. Shimer	456,440	July 21	1814	480	56	362
Metal washers. Machine for making	G. S. Shimer	456,441	July 21	1816	480 481	56	362
Metal-working apparatus. Laminated die, hammer, &c., for electric	H. Lemp	462,262	Nov. 3	64	16	57	564
Metals. Composition for treating the surfaces of	J. Meese	445,320	Jan. 27	2143		54	443
Metals. Device for ornamenting	A. F. Jackson and J. Hewitson	463,991	Nov. 24	2826	733	57	1120
Metals. Electrolytic apparatus for treating	E. S. Hayden	465,525	Dec. 22	2436	621	57	1627
Metals from quartz or other gangue. Liquid for separating	J. S. Lurie	454,116	June 16	1404	367	55	1431
Metals from their ores. Apparatus for extracting	W. von Siemens	452,125	May 12	1102	281	55	789
Metals from their ores or compounds by electrolysis. Obtaining	C. S. Bradley	464,933	Dec. 8	1409	355	57	1413
Metals, &c. Machine for testing the strength of	E. D. Estrada	463,259	Nov. 17	1654	430 431	57	889
Metals. Method of and apparatus for coating	G. and W. T. Leyshon	453,559	June 2	593	151	55	1260
Metals. Method of and apparatus for reducing	W. Wakely	449,145	Mar. 31	3030	766 767	54	1730
Metals of the alkalis from molten chloride. Apparatus for obtaining	L. Grabau	464,096	Dec. 1	137	34	57	1163
Metals with oxides. Coating	A. E. and A. G. Haswell	453,355	June 2	274		55	1199
Metallic balls. Machine for making	E. A. Jones	455,880	July 14	942	246 247	56	189
Metallic box	L. Lams	464,571	Dec. 8	864	213	57	1309
Metallic box or attachment, &c	P. E. McMillin	444,844	Jan. 20	1360	352	54	282
Metallic casing	W. L. Chase	447,007	Mar. 10	879	219	54	1291
Metallic composition. Making	E. J. Rollings	449,783	Apr. 7	218		55	44
Metallic cylinders. Device for scouring	H. Phillips	445,197	Jan. 27	1967	508	54	408
Metallic fabric. Ornamental compound	F. Koskul	453,489	June 2	493	127	55	1241
Metallic facing for buildings	L. L. Sagendorph	448,732	Mar. 24	2398	600	54	1600
Metallic facing-plate	L. L. Sagendorph	448,733	Mar. 24	2399	600	54	1600
Metallic furring and lathing	R. W. Gibson	451,418	Apr. 28	2761	683	55	559

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dis.	Vol.	Page.
Metallic or mineral-bearing substances. Centrifugally treating particles of	O. B. Peck	444,614	Jan. 13	990	257	54	204
Metallic or mineral-bearing substances. Machinery for centrifugally treating particles of	O. B. Peck	441,618	Jan. 13	996	259	54	206
Metallic or mineral-bearing substances of different degrees of specific gravity. Machinery for centrifugally treating particles of	O. B. Peck	444,615	Jan. 13	992	258	54	205
Metallic or mineral-bearing substances of different degrees of specific gravity. Machinery for centrifugally treating particles of	O. B. Peck	444,616	Jan. 13	993	258	54	205
Metallic or mineral-bearing substances of different degrees of specific gravity. Machinery for centrifugally treating particles of	O. B. Peck	444,617	Jan. 13	995	259	54	205
Metallic or mineral-bearing substances of different degrees of specific gravity. Machinery for centrifugally treating particles of	O. B. Peck	441,619	Jan. 13	997	259	54	206
Metallic or mineral-bearing substances of different specific gravity. Apparatus for separating particles of	O. B. Peck	444,613	Jan. 13	989	257	54	202
Metallic post	H. Wolfertz	455,084	June 30	3004	763	55	1749
Metallic surfaces. Decorating	O. M. Smith	446,300	Feb. 10	1327	323	54	774
Metallic tube	F. K. Wright	459,211	Sept. 8	1049	255	56	1276
Metallic vessel	W. W. Flint	458,361	Aug. 25	2347	573	56	1000
Metallic vessel	H. M. Griffiths	454,865	June 30	2579	{ 662 663 }	55	1667
Metallic vessel	L. Sturges	458,352	Aug. 25	2337	570	56	977
Metallic wheel	W. P. Bettendorf	458,411	Aug. 25	2434	592	56	1015
Metallic wheel	W. P. Bettendorf	458,412	Aug. 25	2435	592	56	1015
Metallic wheel	W. P. and J. W. Bettendorf	458,410	Aug. 25	2433	592	56	1015
Metallic wheel	O. C. Hall and E. Rasmussen	452,840	May 26	2249	{ 564 565 }	55	1026
Metallic wheel	O. C. Hall and E. Rasmussen	452,841	May 26	2251	565	55	1026
Meter:							
See Diaphragm-meter.	Gas station-meter.						
Electric meter.	Grain-meter.						
Electric-current-meter.	Millampere-meter.						
Electrical meter.	Oil-meter.						
Fluid-meter.	Oscillating meter.						
Gas-meter.	Piston meter.						
Water-meter.							
Meter	W. T. Fox	450,567	Apr. 14	1380	{ 340 341 }	55	272
Metronome	A. G. Pinfold	449,635	Mar. 31	3-61	967	54	1884
Mica cutter and gage	C. B. Van Arsdale	459,773	Sept. 22	1949	491	56	1461
Micrometer depth-gage	J. Geddes	459,107	Sept. 8	890	213	56	1246
Micrometer-gage	H. B. Bellows	456,875	July 28	2340	666	56	507
Micrometer-gage	H. B. Brown	454,516	June 23	2012	522	55	1556
Micrometer-gage	L. S. Starrett	448,089	Mar. 10	1331	341	54	1379
Micrometer sheet metal gage	H. V. Bernhardt	459,672	Sept. 15	1793	451	56	1428
Microphone	A. C. F. Müller	452,758	May 19	2128	535	55	994
Microscope. Dissecting-	L. E. Sayre	463,168	Nov. 17	1515	394	57	862
Middle breaker	A. Schoenfelder	455,413	July 7	190	49	56	40
Middlings-grader	W. J. Fender	465,924	Dec. 29	3060	785	57	1758
Middlings-purifier	H. W. Stone, Jr	460,731	Oct. 6	318	78	57	62
Middlings-purifier	E. B. Whitmore	458,511	Aug. 25	2593	{ 631 632 554 }	56	1046
Middlings-purifier and dust-collector	F. C. Miller and J. H. Walker	446,876	Feb. 24	2229	{ 555 556 }	54	976
Mileage-book indicator and guard. Combined	W. H. Knight	447,954	Mar. 10	1121	282	54	1338
Milk-aerating machine	W. Garrett	458,895	Sept. 1	546	133	56	1170
Milk-aerator	L. W. Farr	458,692	Sept. 1	227	54	56	1109
Milk and butter cooling device	C. T. Hall and L. R. Farrow	450,864	Apr. 21	1895	{ 464 465 }	55	383
Milk-can	E. A. Kaestner	458,462	Aug. 25	2505	609	56	1028
Milk-can	L. Koch	449,009	Apr. 7	440	110	55	86
Milk-can	W. S. Llewellyn and C. Simmons	461,097	Oct. 13	848	219	57	170
Milk-can	J. E. Morrison	446,949	Feb. 24	2377	586	54	998
Milk-can	J. de St. Legier and G. Davis	446,573	Feb. 17	1750	431	54	872
Milk-can	W. C. Thornton	447,923	Mar. 10	1073	269	54	1328
Milk-can-washing machine	H. L. Plente	462,839	Nov. 10	9-8	256	57	751
Milk-cooler	J. F. Banks	449,992	Apr. 7	517	129	55	100
Milk-cooler	W. W. Conder	451,299	Apr. 28	25-9	639	55	527
Milk-cooler	S. M. Heulings, Jr., and E. Evans	457,533	Aug. 11	1002	256	56	727
Milk-cooler	W. Wightman	448,669	Mar. 24	2614	657	54	1641
Milk-curd. Preparing food from	A. W. Rellmström	446,887	Feb. 24	2255	.....	54	980
Milk-heater	J. L. Jönsson	447,073	Feb. 24	2568	637	54	1037
Milk-heater	W. B. Page and B. Hausheer	454,948	June 30	2751	701	55	1699
Milk-liquidizing machine	G. Roth	446,077	Feb. 10	9-26	226	54	700
Milk or other food for calves. Vessel for heating	C. H. Hollister	463,387	Nov. 17	1864	487	57	928
Milk refrigerating and transporting can	P. M. Forrester	446,254	Feb. 10	1248	305	54	759
Milk-scalder	N. W. Gales	464,622	Dec. 8	943	232	57	1325
Milk. Separating cream from	J. J. Berigan	463,731	Nov. 24	2421	631	57	1043
Milk testing and separating machine	D. Cooper	446,248	Feb. 10	1239	301	54	757
Milk-testing apparatus	D. T. Sharples	448,193	Aug. 25	2055	532	56	945
Milk-testing apparatus. Centrifugal	D. T. Sharples	458,191	Aug. 25	2057	533	56	945
Milk-testing device	A. H. Reid	446,469	Feb. 17	1594	391	51	842
Milk. Vessel for sterilizing and transporting	J. F. H. Gronwald and E. H. C. Oehlmann	454,267	June 16	1626	427	55	1475
Milk wine and making the same	J. H. Hooker	455,210	June 30	3217	.....	55	1790
Milker. Cow	S. Ampacker	458,611	Sept. 1	97	22	56	10-5
Milking apparatus	H. Horlyck	459,582	Sept. 15	1640	{ 410 411 }	56	1399

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Milking cows. Safety device for use in	C. C. Palmer	453,498	June 2	508	{ 130 131 }	{ 55 }	1244
Mill:							
See Bark-mill. Grinding-mill.							
Boring and turning Grinding and amalgamat-							
mill. ing mill.							
Cane-mill. Heap or band rolling mill.							
Cider-mill. Ore-mill.							
Clay-disintegrating Paint-mill.							
mill. Pug-mill.							
Coffee-mill. Pulverizing-mill.							
Crushing-mill. Quartz-mill.							
Crushing and grind- Rod-mill.							
ing mill. Roller-mill.							
Fanning-mill. Rolling-mill.							
Feed-mill. Saw-mill.							
Food-mill. Spice-mill.							
Fulling-mill. Stone saw mill.							
Gig-mill. Windmill.							
Grain-cleaning mill. Winnowing-mill.							
Mill	L. Doloire and C. Gelay	462,372	Nov. 3	246	61	57	597
Mill	J. H. Pondleton	458,662	Sept. 1	180	42, 43	56	1090
Mill and power mechanism	E. C. Griffin	449,118	Mar. 31	2988	755	54	1723
Mill appliance	H. Aiken	448,623	Mar. 24	2223	{ 557 558 }	{ 54 }	1567
Mill appliance	H. Aiken	449,724	Apr. 7	122	31, 32	55	26
Mill appliance	J. Kennedy	446,526	Feb. 17	1683	{ 411 412 }	{ 54 }	859
Mill-boards. Grooving and scratching apparatus for.	F. Hasenau	459,095	Sept. 8	870	200	56	1242
Mill-carriage-wheel guard	J. W. Zimmerman	451,165	Apr. 28	2357	586	55	483
Mill-race fender and screen	P. R. Grabill	452,702	May 19	2030	{ 508 509 }	{ 55 }	975
Mill safety device	L. Wagner	459,352	Sept. 8	1264	{ 311 312 }	{ 56 }	1319
Mills and power mechanism	E. C. Griffin	464,500	Dec. 8	758	185	57	1288
Millampere-meter	L. D. McIntosh	460,650	Oct. 6	185	48	57	39
Milliner's steamer	S. C. Krause	465,864	Dec. 29	2900	756	57	1738
Milling-cutter	E. R. Pallen	447,900	Mar. 10	1034	200	54	1321
Milling-machine	A. T. Gifford	458,325	Aug. 25	2290	560	56	988
Milling-machine	P. J. Kelly	462,050	Oct. 27	2438	604	57	459
Milling-machine rotary attachment	A. D. Pentz	461,201	Oct. 13	1012	258	57	201
Milling machinery	H. J. Woolcott	456,231	July 21	1471	391	56	298
Millstone. Composite	T. L. Sturtevant	452,958	May 26	2450	618	55	1065
Millstone. Composite	T. L. Sturtevant	452,959	May 26	2452	619	55	1065
Millstone-dressing machine	G. A. Smith	463,460	Nov. 17	1968	514	57	950
Mine-cage. Self-dumping	M. S. Cohan	461,817	Oct. 27	2081	514	57	420
Mine-door	C. Swan and G. M. Whaite	456,446	July 21	1823	483	56	364
Mine-shafts. Electric signal for	F. W. Bacorn	454,018	June 16	1268	329	55	1405
Mine-timbers	W. J. Olcott	459,857	Sept. 22	2083	523	56	1491
Mines. System of electrical distribution for	E. A. Sperry	446,030	Feb. 10	852	207	54	686
Miners' and blasters' use. Tool for	R. A. McVitty	463,912	Nov. 24	2706	702	57	1096
Miners' hats. Lamp-carrier for	C. H. Hobson	447,325	Mar. 3	69	19	54	1131
Miner's squib	J. R. Powell	457,669	Aug. 11	1207	310	56	767
Mining-cages. Chair for	A. Gray	466,163	Dec. 29	3467	886	57	1836
Mining-column	C. H. Sergeant	444,140	Jan. 6	268	64	54	55
Mining-drill. Steam	A. Ball	457,506	Aug. 11	967	246	56	720
Mining-machine	L. W. Le Grand and J. Klotz	464,374	Dec. 1	574	{ 140 141 }	{ 57 }	1243
Mining-machine	J. J. Lytle, W. F. Evans, and C. Kimber	455,513	July 7	337	86, 87	56	67
Mining-machine	E. S. and W. A. McKinlay	457,887	Aug. 18	1578	{ 410 411 412 }	{ 56 }	846
Mining-machine	E. A. Sperry	454,500	June 23	1988	{ 516 517 }	{ 55 }	1551
Mining-machine	J. Stephenson	444,027	Jan. 6	70	19	54	17
Mining-machine	J. C. Werner	465,150	Dec. 15	1826	463	57	1500
Mining-machine	H. B. Wyman	454,895	June 30	2639	677	55	1678
Mining-machine	H. B. Wyman	455,824	July 14	870	228	56	175
Mining machine. Coal	J. Passmore and P. A. Arp	465,197	Dec. 15	1894	{ 480 481 }	{ 57 }	1513
Mining machine. Coal	F. A. Pocock	444,116	Jan. 6	216	52, 53	54	44
Mining machine. Coal	I. Wantling and J. T. Johnson	451,988	May 12	843	{ 215 216 }	{ 55 }	746
Mining machine. Coal	C. H. Wolford	444,476	Jan. 13	775	202	54	162
Mining machine. Coal	H. B. Wyman	448,829	Mar. 24	2543	638	54	1628
Mining machine. Electric coal	E. C. Morgan	458,184	Aug. 25	2040	529	56	942
Mining machine. Electric coal	C. J. Van Depoele	458,868	Sept. 1	503	{ 122 123 }	{ 56 }	1161
Mining machinery. Conveyor and separator-apron for	W. A. Merralls	449,942	Apr. 7	443	110	55	87
Mineral-drilling machine	E. A. Sperry	459,596	Sept. 15	1666	416	56	1403
Mineral wool	C. H. Hubbell	453,115	May 26	2706	.....	55	1115
Mineral wool. Manufacturing	C. H. Rockwell	447,360	Mar. 3	137	.....	54	1143
Mineral wool. Manufacturing	C. H. Rockwell	452,733	May 19	2082	.....	55	985
Minerals. Machine for cutting or slicing	W. B. Dwight	445,983	Feb. 10	761	{ 186 187 188 189 190 }	{ 54 }	671
Minnow-bucket. Automatic floating	E. Williams	458,529	Aug. 25	2619	637	56	1050
Mirror	H. Berry	464,004	Dec. 1	5	2	57	1138
Mirror. Adjustable	J. and M. B. Elbert	456,695	July 28	2233	590	56	451

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Mirror and making the same.	J. Jacobson.	465,996	Dec. 29	3307	817	57	1784
Mirror-support. Adjustable.	R. P. Elliott.	458,227	Aug. 25	2121	{ 549 550 }	56	957
Mirrors. Producing colored designs, &c., on.	L. Lederer.	462,441	Nov. 3	356		57	618
Miter-box.	R. B. Currier.	446,431	Feb. 17	1535	378	54	829
Miter-box.	T. C. Oakman.	455,351	July 7	79	23	56	20
Miter-box.	E. E. Wagoner.	451,089	Apr. 28	2231	{ 552 553 }	55	458
Miter-box.	A. Ward.	463,216	Nov. 17	1585	412	57	875
Miter-cramp.	D. Poster.	454,039	June 16	1294	337	55	1411
Miter-cutting machine.	W. J. Perkins.	449,696	Apr. 7	76	18	55	17
Mirror. Lady's shoe.	S. Goodman.	447,770	Mar. 10	804	199	54	1277
Mixer or beater.	A. C. Mitchell.	466,178	Dec. 29	3490	891	57	1240
Mixing apparatus.	R. Smith.	449,259	Mar. 31	3209	809	54	1764
Mixing-machine.	S. J. Fischer.	463,892	Nov. 24	2668	695	57	1089
Mixing machine. Liquid.	W. Bruen and H. C. Hunt.	455,479	July 7	284	72	56	57
Moistening and sealing devices. Fountain-feed for.	P. J. Schreiber.	446,081	Feb. 10	930	227	54	761
Moistening-pad.	L. E. Bates.	461,231	Oct. 13	1072	271	57	213
Molasses-gate. Automatic-stop.	S. P. Buck.	458,313	Aug. 25	2969	554	56	984
Molasses-mixer.	W. N. Villavaso.	444,470	Jan. 13	767	200	54	160
Molasses to improve its flavor. Treating.	J. Duncan.	455,295	June 30	3369		55	1820
Mold.							
See Basket-mold.	Glass-mold.						
Brick-mold.	Pipe-mold.						
Bullet-mold.	Sand-mold.						
Candy-mold.	Stereotype-mold.						
Car-wheel mold.	Suppository-mold.						
Chill-mold.	Type-mold.						
Collar-mold.							
Mold.	G. W. Beyer.	447,555	Mar. 3	470	116	54	1206
Mold.	G. W. Beyer and G. W. Harper.	461,777	Oct. 20	2012	496	57	398
Mold.	T. E. Twist.	445,737	Feb. 3	363	94	54	584
Mold-rack.	F. J. Wooster and R. L. Andrus.	447,804	Mar. 10	876	218	54	1291
Molder's flask.	F. Baugh.	450,802	Apr. 21	1788	435	55	364
Molder's flask.	F. Baugh.	451,017	Apr. 28	2141	529	55	439
Molder's flask.	W. G. Richards.	451,576	May 5	197	47	55	617
Molder's flask.	W. G. Richards.	451,577	May 5	198	48	55	617
Molder's flask.	R. Taylor.	456,097	July 14	1252	330	56	246
Molder's flask.	F. M. Wonders.	456,185	July 21	1393	369	56	284
Molder's flask-clamp.	A. C. Allbee.	450,820	Apr. 21	1827	443	55	370
Molding apparatus.	S. J. Adams.	455,144	June 30	3106	789	55	1768
Molding apparatus.	D. Carlin.	444,588	Jan. 13	957	248	54	198
Molding apparatus. Sand.	S. J. Adams.	455,143	June 30	3101	789	55	1767
Molding-cutter.	R. E. Linham.	452,309	May 12	1385	344	55	844
Molding-cutter.	R. E. Linham.	452,310	May 12	1386	345	55	844
Molding-cutter.	R. E. Linham.	452,311	May 12	1387	345	55	844
Molding-flask.	M. F. Richardson.	455,293	June 30	3367	849	55	1819
Molding-flask.	N. G. Stader.	451,237	Apr. 28	2491	615	55	507
Molding-machine.	C. L. Goehring.	450,788	Apr. 21	1764	{ 428 429 }	55	359
Molding-machine.	J. E. McCanna.	448,987	Mar. 24	2779	703	54	1673
Molding-machine.	F. Moore and F. L. Clark.	463,160	Nov. 17	1496	388	57	858
Molding-machine.	P. O'Connor.	462,276	Nov. 3	86	21, 22	57	568
Molding-machine.	H. Tabor.	448,596	Mar. 17	2158	540	54	1547
Molding-machine.	F. H. Van Houton.	450,789	Apr. 21	1766	{ 429 430 }	55	360
Molding-machine.	W. Zoeller.	445,215	Jan. 27	1991	{ 513 514 }	54	413
Molding-machine for molding plastic material.	J. Hoffman.	458,754	Sept. 1	312	76	56	1125
Molding machine. Pulp.	M. L. Deering.	455,097	June 30	3022	{ 768 769 }	55	1752
Molding-machines. Driving mechanism for.	J. Ettinger.	457,952	Aug. 18	1688	443	56	868
Molding-machines. Means for securing knives to cutter-heads of.	T. B. Huestis.	455,211	June 30	3219	817	55	1790
Molding pulp articles. Machine for.	H. Carmichael.	454,849	June 30	2555	{ 657 658 }	55	1663
Moldings. Apparatus for treating composition for ornamenting.	G. W. Landon.	447,733	Mar. 3	729	183	54	1255
Moldings, &c. Fabric for covering.	J. D. Ripson.	445,434	Jan. 27	2309	599	54	477
Moldings or similar articles. Method of and apparatus for covering.	E. Rockhausen.	466,105	Dec. 23	3372	861	57	1817
Moldings. Storage-rack for.	G. F. Of.	465,794	Dec. 22	2842	728	57	1706
Mole-ditcher.	Z. V. Purdy.	465,416	Dec. 15	2250	577	57	1581
Mole-trap.	M. McGary.	463,736	Nov. 24	2427	636	57	1044
Mole-trap.	G. Ricardo.	458,493	Aug. 25	2561	624	56	1039
Mole-trap.	J. C. Trout.	447,417	Mar. 3	237	60	54	1162
Mole-trap.	G. H. Wells, Jr.	462,342	Nov. 3	192	49	57	587
Momentum-reservoir motor.	M. M. Bailey.	465,122	Dec. 15	1780	{ 449 450 }	57	1492
Money-box. Registering.	J. T. M. Burgess.	454,846	June 30	2551	656	55	1662
Money-box. Registering.	J. T. Mahoney.	458,400	Aug. 25	2420	5-9	56	1012
Money-box. Trick.	S. E. Clark.	460,331	Sept. 29	2814	701	56	1637
Money-changer.	H. G. Cooke.	448,637	Mar. 24	2241	563	54	1570
Money-changer.	M. B. Lowrey.	452,757	May 19	2126	535	55	993
Money-changer and cash-register. Combined automatic.	C. B. Boyer.	462,889	Nov. 10	1066	{ 276 277 }	57	766
Money-changing machine.	M. D. Sweeney.	463,375	Nov. 17	1845	482	57	925
Money-drawer.	F. Mahannah.	465,184	Dec. 15	1877	476	57	1510
Money-drawer and recorder. Combined.	D. R. Salisbury.	455,519	July 7	345	89	56	68
Money-order. Safety.	H. W. Campbell.	456,885	July 28	2555	671	56	509
Money payments. Means for checking and recording.	F. A. Messer and W. F. Thorpe.	463,526	Nov. 17	2058	{ 539 540 541 }	57	967

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Money payments. Means for checking and recording	F. A. Messer and W. F. Thorpe	463,527	Nov. 17	2063	{ 541 542 543 544 }	57	968
Money-till. Reflecting	G. R. Meitzler	445,566	Feb. 3	71	17	54	526
Monkey-wrench	A. H. Gallup and W. Sallee	462,280	Nov. 3	91	24	57	568
Monkey-wrench	H. Haedicke	449,796	Apr. 7	240	61	55	48
Monkey-wrench	V. J. McDonnell	449,129	Mar. 31	3009	761	54	1726
Monkey-wrench	J. K. Starley	444,402	Jan. 6	658	170	54	130
Monument	W. Cline	464,494	Dec. 8	749	183	57	1286
Monuments, &c. Name-plate for	R. H. Follenius	463,560	Nov. 17	2025	531	57	960
Mop	C. Moore	465,188	Dec. 15	1882	477	57	1511
Mop and brush. Convertible	W. H. Bagby	449,658	Apr. 7	8	2	55	4
Mop-head	F. P. White	447,650	Mar. 3	611	151	54	1233
Mop-holder	A. H. Jackson	457,425	Aug. 11	832	215	56	695
Mop belder and wringer	L. Pelton	460,656	Oct. 6	195	50	57	41
Mop or brush holder	E. L. Brown	462,619	Nov. 3	626	158	57	672
Mop-stick, mop-wringer, and scrubbing-brush holder combined.	J. A. Brosseau	444,043	Jan. 6	937	25	54	22
Mop-wringer	A. M. Burnham	454,203	June 16	1534	{ 403 404 }	55	1457
Mop-wringer	W. S. Jarboe	447,732	Mar. 3	728	182	54	1255
Mop-wringer	C. and F. C. McDonald	444,279	Jan. 6	473	120	54	93
Mop-wringer	R. H. Mullen	462,100	Oct. 27	2517	625	57	504
Mop-wringer	J. P. Reuter	456,777	July 28	2376	624	56	477
Mop-wringer	C. A. White	456,666	July 28	2184	579	56	442
Mortar-carriage	F. B. Taylor	458,554	Aug. 25	2654	646	56	1058
Mortiser, groover, rabbeter, and borer. Combined	M. P. Brown	458,613	Sept. 1	100	22, 23	56	1085
Mortising-machine	G. W. Passel and J. Sofge	457,368	Aug. 11	745	{ 191 192 145 146 }	56	678
Mortising-machine	P. Swicter	455,646	July 7	563	145	56	109
Mortising-machine	T. N. Wilson	452,820	May 26	2220	557	55	1020
Mortising-machine	H. F. Wyatt	447,269	Feb. 24	2922	726	54	1105
Mortising-machine. Wood	L. H. Berry and L. O. Orton	453,539	June 2	565	144	55	1254
Mosquito-canopy frame	A. Jatho	447,878	Mar. 10	996	251	54	1313
Mosquito-net frame	C. C. Lee	451,331	Apr. 28	2636	651	55	535
Mosquito-trap	M. P. C. Hooper	455,403	July 7	166	42, 43	56	35
Moss-cleaning machine	J. von Oven and C. F. Panknin	462,830	Nov. 10	971	252	57	748
Motes, waste, and scrapings. Machine for treating	E. D. Emerson	458,229	Aug. 25	2133	550	56	958
Motion. Apparatus for regulating	A. Terlinden and W. van Galen	463,010	Nov. 10	1249	325	57	802
Motion. Apparatus for transmitting	B. F. C. Brooks	461,399	Oct. 13	1342	338	57	267
Motion at different speeds. Means for transmitting rotary	C. B. Cottrell	448,776	Mar. 24	2467	617	54	1613
Motion. Device for converting	W. E. Canedy	445,922	Feb. 3	662	161	54	642
Motion. Hand device for imparting rotary	P. Lord	464,371	Nov. 17	1839	481	57	924
Motion. Machine for converting	C. H. Brandt	455,961	July 14	1065	279	56	211
Motion. Mechanism for converting	E. Worms and A. S. Zwierzchowski	451,175	Apr. 28	2370	589	55	486
Motive engine	J. L. Henderson	466,237	Dec. 29	3573	915	57	1856
Motive power	L. M. Robbins	461,047	Oct. 13	779	199	57	157
Motive power. Obtaining	G. J. Altham	448,621	Mar. 17	2214	554	54	1558
Motor:							
See Car-motor.	Multiple-cylinder motor.						
Churn-motor.	Momentum-reservoir motor.						
Cradle-motor.							
Current-motor.	Pneumatic motor.						
Dental motor.	Pump-motor.						
Electric motor.	Railway-motor.						
Electric-magnetic motor.	Railway-gate motor.						
Electro-magnetic motor.	Rotary motor.						
Electro-magnetic motor.	Sewing-machine motor.						
Elevator-motor.	Soda-motor.						
Fan-motor.	Spring-motor.						
Fluid-motor.	Tide-motor.						
Gas-motor.	Transformer-motor.						
Hot-air motor.	Water-motor.						
Hydraulic motor.	Water or other motor.						
Manual motor.	Wave-power motor.						
Mechanical motor.	Wind-motor.						
Motor	N. E. Austin	445,593	Feb. 3	116	29	54	534
Motor	W. C. Carpenter	452,832	May 26	2236	561	55	1024
Motor	L. Eynard	446,945	Feb. 24	2352	525	54	996
Motor	A. P. Gathright	455,459	July 7	253	61	56	51
Motor	J. R. G. Huffman	446,134	Feb. 10	1018	252	54	718
Motor	F. C. Moore	458,776	Sept. 1	343	83, 84	56	1131
Motor	J. Repetti	451,249	Apr. 28	2511	619	55	511
Motor	T. Sutherland	447,648	Mar. 3	609	150	54	1233
Motor and pump	E. Courtright	457,303	Aug. 4	600	{ 157 158 }	56	644
Motor controlling device	R. C. Smith	459,189	Sept. 8	1011	217	56	1268
Motor-engine worked by the vapor of ether or other volatile liquids.	P. de Susini	451,342	Apr. 28	2648	655	55	538
Motor for pumping, &c.	J. E. Selkirk	461,963	Oct. 27	2315	574	57	466
Motor generator or transformer	G. J. Scott	454,883	June 30	2613	670	55	1673
Motor-switch. Self-controlled	G. H. Whittingham	452,151	May 12	1144	289	55	797
Motors. Operating	R. R. Zell	453,333	June 2	239	64	55	1193
Motors. Operating	R. R. Zell	457,832	Aug. 18	1475	{ 384 385 }	56	828
Mousing and safety hook	F. C. Ziegler	459,431	Sept. 15	1403	350	56	1355
Mower	G. Jernberg	447,328	Mar. 3	72	20	54	1133
Mower	C. Martincourt	453,402	June 2	343	89, 90	55	1212
Mower	J. F. Steward	456,782	July 28	2383	627	56	478

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Mower attachment. Lawn.....	C. C. Maxwell.....	448,977	Mar. 24	2766	699	54	1671
Mower attachment. Lawn.....	F. W. Redel.....	463,451	Nov. 17	1955	510	57	947
Mower handle. Lawn.....	J. V. Rowlett.....	454,932	June 30	2725	695	55	1694
Mower-knives. Tool-guide for sharpening.....	J. E. Harwood.....	462,435	Nov. 3	351	86	57	617
Mower. Lawn.....	J. E. Ash.....	444,643	Jan. 13	1033	269	54	212
Mower. Lawn.....	J. Braun and H. Deck.....	456,471	July 21	1863	492	56	371
Mower. Lawn.....	P. Cammerbeke.....	465,160	Dec. 15	1838	467	57	1503
Mower. Lawn.....	H. H. Dille.....	460,433	Sept. 29	2954	739	56	1663
Mower. Lawn.....	H. H. Dille and E. W. McGuire.....	446,329	Feb. 10	1366	332	54	783
Mower. Lawn.....	H. Farmer.....	460,085	Sept. 22	2428	607	56	1556
Mower. Lawn.....	E. N. Fox.....	444,608	Jan. 13	982	255	54	203
Mower. Lawn.....	C. A. Frayer.....	450,568	Apr. 14	1382	341	55	273
Mower. Lawn.....	D. M. Kyle.....	458,715	Sept. 1	257	61	56	1114
Mower. Lawn.....	E. G. Passmore.....	455,974	July 14	1082	283	56	214
Mower. Lawn.....	J. V. Rowlett.....	453,377	June 2	304	79	55	1204
Mower. Lawn.....	E. E. Runyon.....	445,616	Feb. 3	154	40	54	541
Mower. Lawn.....	W. S. Scales.....	463,078	Nov. 10	1359	351	57	824
Mower. Lawn.....	L. Smith.....	445,632	Feb. 3	179	47	54	546
Mower. Lawn.....	W. Storey.....	448,866	Mar. 24	2611	656	54	1640
Mower sharpener. Lawn.....	A. M. Bachelder and L. B. Garrett.....	463,676	Nov. 24	2329	611	57	1026
Mower sharpener. Lawn.....	J. H. Pitman.....	459,479	Sept. 15	1472	370	56	1368
Mowers. Divider attachment for.....	M. Anthony.....	446,316	Feb. 10	1347	328	54	779
Mowers. Grass-carrying attachment for lawn.....	R. F. Krause and J. Glennon.....	448,440	Mar. 17	1926	484	54	1503
Mowers. Grass-receptacle for lawn.....	T. F. Bartlett.....	448,188	Mar. 10	1480	378	54	1409
Mowers. Tongue attachment for lawn.....	J. Braun and H. Deck.....	456,472	July 21	1865	492	56	372
Mowing and harvesting machines. Frame for.....	S. M. Pryor.....	462,996	Nov. 10	1232	320	57	798
Mowing and reaping machine.....	C. H. Salzman.....	455,602	July 7	499	129	56	96
Mowing and reaping machine.....	T. O. Sundet and S. W. Brekke.....	463,008	Nov. 10	1246	324	57	801
Mowing and reaping machine.....	E. Webster.....	450,546	Apr. 14	1356	334	55	267
Mowing-machine.....	E. Bartlett.....	459,264	Sept. 8	1123	274	56	1291
Mowing-machine.....	J. O. Brown.....	441,238	Jan. 6	418	104	54	82
Mowing-machine.....	J. J. Courtney.....	445,391	Jan. 27	2241	581	54	463
Mowing-machine.....	J. Davidson.....	451,031	Apr. 28	2159	533	55	442
Mowing-machine.....	R. H. Dixon.....	455,482	July 7	288	73	56	58
Mowing-machine.....	G. G. Hunt.....	459,443	Sept. 15	1417	355	56	1357
Mowing-machine.....	J. W. James.....	445,894	Feb. 3	621	152	54	634
Mowing-machine.....	J. W. James.....	462,558	Nov. 3	534	130	57	653
Mowing-machine.....	J. H. Jones.....	454,741	June 23	2375	610	55	1623
Mowing-machine.....	G. L. K. Morrow.....	447,342	Mar. 3	99	27	54	1137
Mowing-machine.....	B. F. Rich.....	459,018	Sept. 8	739	179	56	1217
Mowing-machine.....	E. Smith.....	445,347	Jan. 27	2183	565	54	452
Mowing-machine.....	A. Stevens.....	461,854	Oct. 27	2131	526	57	430
Mowing-machine divider.....	F. J. J. Schuett.....	446,894	Feb. 24	2266	563	54	981
Mowing-machine-knife grinder.....	J. W. Watson.....	446,803	Feb. 17	2102	523	54	942
Mowing-machine pitman.....	J. F. Steward.....	463,341	Nov. 17	1788	468	57	913
Mowing-machines. Cutting mechanism for.....	W. F. Shuey.....	450,499	Apr. 14	1297	318	55	255
Mowing-machines. Spring lifting device for.....	J. F. Steward.....	464,739	Dec. 8	1138	282	57	1360
Mucilage.....	C. M. Higgins.....	466,240	Dec. 29	3577	.....	57	1857
Mucilage and adhesive compound.....	C. M. Higgins.....	466,238	Dec. 29	3575	.....	57	1857
Mucilage-holder.....	A. Bihler.....	453,229	June 2	73	18	55	1162
Mucilage-holder.....	W. O. Nelson.....	448,665	Mar. 24	2287	573	54	1579
Mucilage holder and spreader.....	J. H. Porter.....	449,233	Mar. 31	3163	797	54	1755
Mucilage, ink, &c. Holder for.....	W. F. Litch.....	465,183	Dec. 15	1877	476	57	1510
Mucilage-scraper.....	F. T. Aikins.....	448,492	Mar. 17	2005	502	54	1517
Muff.....	H. F. Bindseil.....	462,225	Oct. 27	2721	685	57	543
Muffle-furnace.....	E. O. Goss.....	463,401	Nov. 17	1893	493	57	933
Muffle-furnace.....	C. H. Land.....	446,947	Feb. 21	2354	586	54	997
Muffler.....	S. F. Prince, Jr.....	452,020	May 12	895	230	55	755
Muffler. Steam.....	C. E. Healy.....	449,120	Mar. 31	2992	756	54	1724
Mule. Self-acting.....	R. Schneider.....	462,167	Oct. 27	2619	653	57	524
Multiple call-box.....	F. B. Wood.....	446,199	Feb. 10	1135	278	54	736
Multiple-cylinder engine.....	C. C. Abbe.....	444,901	Jan. 20	1483	383	54	306
Multiple-cylinder motor.....	E. B. Benham.....	459,736	Sept. 22	1898	478	56	1454
Multiple expansion-engine.....	H. Dunsmuir.....	449,284	Mar. 31	3249	823	54	1771
Multiple-signal transmitter.....	B. J. Noyes.....	451,512	May 5	102	25	55	598
Multiple switch-board.....	F. A. Pickernell.....	463,545	Nov. 17	2107	555	57	975
Multiplying-camera.....	J. C. Randal and W. E. Price.....	465,802	Dec. 22	2855	731	57	1709
Music. Apparatus for turning over the leaves of.....	W. Kershaw.....	465,324	Dec. 15	2096	535	57	1552
Music-book holder.....	C. A. Wetz.....	445,551	Feb. 3	115	29	54	533
Music-box.....	E. Jaccard-Margot.....	460,253	Sept. 29	2679	667	56	1611
Music-box.....	J. Schünemann.....	445,083	Jan. 20	1787	410	54	365
Music-box damper.....	C. H. Jacot.....	461,633	Oct. 30	1779	458	57	354
Music-box. Electric.....	C. A. Hussey.....	446,684	Feb. 17	1920	478	54	904
Music-boxes. Safety-check for.....	J. Billon-Haller.....	457,574	Aug. 11	1668	273	56	741
Music-boxes. Tune-changing device for.....	F. Van Fleet.....	459,970	Sept. 22	2253	566	56	1522
Music-chart.....	J. Dodd.....	452,995	May 26	2513	636	55	1076
Music-holder.....	C. E. French.....	462,132	Oct. 27	2559	635	57	512

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Music-holder.....	C. H. Reynolds.....	456,638	July 28	2137	{ 565 566 }	56	433
Music-holder.....	W. F. Shaw.....	458,074	Aug. 18	1872	{ 488 489 }	56	903
Music-holder.....	S. T. Walker.....	452,683	May 19	1998	{ 500 501 }	55	969
Music-leaf turner.....	E. W. Burnham.....	447,040	Feb. 24	2516	{ 624 625 }	54	1027
Music-leaf turner.....	F. M. Hurley.....	451,763	May 5	495	{ 122 123 }	55	672
Music-leaf turner.....	B. F. D. Miller.....	463,529	Nov. 17	2070	{ 544 545 }	57	968
Music-leaf turner.....	E. B. Newcomb.....	463,913	Nov. 24	2707	{ 703 704 }	57	1097
Music-leaf turner.....	B. Schneider.....	448,265	Mar. 17	1623	{ 414 415 }	54	1445
Music-rack for organs and upright pianos	W. Anderson.....	463,183	Nov. 17	1536	{ 401 402 }	57	865
Music-score holder.....	P. O'Carroll.....	457,564	Aug. 11	1051	{ 269 270 }	56	738
Music. Sheet.....	C. F. Pidgin.....	462,972	Nov. 10	1203	{ 313 314 }	57	792
Music-sheet for mechanical musical instruments.	W. A. Webber.....	452,203	May 12	1228	{ 310 311 }	55	813
Music sheet or book holder.....	W. F. Armstrong.....	458,009	Aug. 18	1784	{ 466 467 }	56	885
Music-sheets. Device for turning.....	O. F. C. Bannier.....	444,390	Jan. 6	638	{ 166 167 }	54	125
Music-sheets. Device for turning.....	J. F. C. Grün.....	444,300	Jan. 6	621	{ 161 162 }	54	122
Music-sheets. Device for turning.....	H. Nothhaas.....	451,976	May 12	822	{ 210 211 }	55	742
Music-stand case and portfolio.....	S. C. Rue.....	456,433	July 21	1807	{ 477 478 }	56	360
Music-stands. Leaf-holder for.....	J. R. Wilkins.....	458,438	Aug. 25	2474	{ 602 603 }	56	1023
Music. Time-annunciator for.....	W. K. Lord.....	458,251	Aug. 25	2156	{ 529 530 }	56	964
Music box.....	A. Junod, J. Jaccard, and P. Calame-Jaccard.	445,699	Feb. 3	305	{ 80, 81 82 }	54	572
Musical decanter.....	A. Sucur.....	465,795	Dec. 22	2843	{ 728 729 }	57	1707
Musical instrument.....	F. Allasia.....	462,963	Nov. 10	1187	{ 308 309 }	57	789
Musical instrument.....	C. W. and J. Anderson.....	457,143	Aug. 4	321	{ 83 84 }	56	595
Musical instrument.....	A. V. Chevers.....	453,462	June 2	456	{ 117 118 }	55	1234
Musical instrument.....	J. L. De Good.....	445,978	Feb. 10	754	{ 185 186 }	54	670
Musical instrument.....	E. G. Durner.....	457,707	Aug. 11	1265	{ 327 328 }	56	778
Musical instrument.....	G. A. Ernst.....	456,027	July 14	1167	{ 306 307 }	56	230
Musical instrument.....	J. Fairman.....	448,217	Mar. 17	1543	{ 395 396 }	54	1430
Musical instrument.....	J. H. Foote and C. W. Ruby.....	463,034	Nov. 10	1285	{ 333 334 }	57	809
Musical instrument.....	E. Freiner.....	449,439	Mar. 31	3540	{ 892 893 }	54	1823
Musical instrument.....	I. F. Gilmore.....	451,667	May 5	343	{ 84 85 }	55	644
Musical instrument.....	H. J. Hansen.....	459,932	Sept. 22	2206	{ 554 555 }	56	1513
Musical instrument.....	E. P. Hicks.....	465,761	Dec. 22	2799	{ 716 717 }	57	1697
Musical instrument.....	W. M. Jewell.....	460,688	Oct. 6	255	{ 62 63 }	57	51
Musical instrument.....	W. A. Munch.....	465,487	Dec. 22	2364	{ 605 606 }	57	1614
Musical instrument.....	R. W. Pain.....	445,075	Jan. 20	1766	{ 455 456 }	54	361
Musical instrument.....	J. S. F. Pizzuti.....	452,193	May 12	1213	{ 307 308 }	55	811
Musical instrument.....	J. S. F. Pizzuti.....	458,238	Aug. 25	2133	{ 523 524 }	56	959
Musical-instrument bridge.....	J. Barnes.....	457,833	Aug. 18	1477	{ 385 386 }	56	828
Musical-instrument bridge.....	R. Lorang.....	455,221	June 30	3232	{ 821 822 }	55	1793
Musical-instrument key.....	L. K. Fuller.....	463,986	Nov. 24	2818	{ 730 731 }	57	1118
Musical instrument. Mechanical.....	J. L. Müller.....	459,590	Sept. 15	1655	{ 414 415 }	56	1402
Musical instrument. Mechanical.....	C. Pietschmann.....	447,970	Mar. 10	1157	{ 293 294 }	54	1343
Musical instrument. Mechanical.....	E. Schilling.....	450,257	Apr. 14	919	{ 227 228 }	55	183
Musical instrument. Mechanical.....	W. O. Spaetho.....	457,445	Aug. 11	863	{ 224 225 }	56	701
Musical instrument. Stringed.....	W. I. Hobill.....	455,329	July 7	42	{ 12 13 }	56	11
Musical instrument. Stringed.....	O. Leuzner, Sr.....	447,689	Mar. 3	661	{ 164 165 }	54	1243
Musical instrument. Stringed.....	J. A. Mackenzie.....	461,915	Oct. 27	2239	{ 553 554 }	57	451
Musical instrument. Stringed.....	A. Olson.....	465,490	Dec. 22	2367	{ 606 607 }	57	1615
Musical instrument. Stringed.....	W. A. Tuebnée.....	459,603	Sept. 15	1677	{ 419 420 }	56	1466
Musical-instrument valve.....	W. H. Mankey and O. D. Eastman.....	462,148	Oct. 27	2595	{ 646 647 }	57	519
Musical instrument. Valved.....	F. Besson.....	457,337	Aug. 11	696	{ 178 179 }	56	668
Musical instrument. Wind.....	H. J. Light.....	454,748	June 23	2384	{ 612 613 }	55	1625
Musical instruments. Bow for stringed.....	W. H. Ayres and H. Schroeder.....	466,146	Dec. 29	3444	{ 8-1 8-2 }	57	1832
Musical instruments. Key-board playing attachment for.....	J. P. Becker.....	449,396	Mar. 31	3466	{ 873 874 }	54	1809
Musical instruments. Pipe for wind.....	A. V. Chevers.....	445,849	Feb. 3	559	{ 136 137 }	54	620
Musical instruments. Resonator for skin-headed.....	J. Barratt.....	455,297	July 7	2	{ 56 57 }	56	3
Musical instruments. Shell for.....	J. Heald.....	448,797	Mar. 24	2498	{ 625 626 }	54	1619
Musical instruments. Sound-board for.....	A. Springer.....	444,770	Jan. 13	1242	{ 323 324 }	54	251
Musical instruments. Tail-piece for.....	G. B. Durkee.....	447,946	Mar. 10	1107	{ 278 279 }	54	1335
Musical instruments. Tail-piece for.....	G. L. Robinson.....	459,414	Sept. 15	1375	{ 344 345 }	56	1350
Musical instruments. Tail-piece for stringed.....	W. Van Deventer.....	463,013	Nov. 10	1252	{ 325 326 }	57	803
Musical instruments. Tone-modulator for.....	A. H. Loeb.....	444,448	Jan. 13	726	{ 190 191 }	54	152
Musical instruments. Tremolo attachment for stringed.....	G. W. Van Dusen.....	462,519	Nov. 3	466	{ 114 115 }	57	639
Musical instruments. Tuning-peg for.....	R. Kuenstler.....	461,328	Dec. 1	510	{ 122 123 }	57	1231
Musical instruments. Tuning-slide for.....	F. O. Wellcome.....	448,307	Mar. 17	1709	{ 433 434 }	54	1462
Musical instruments. Tuning-slide for brass.....	C. Pietz.....	461,131	Oct. 13	869	{ 231 232 }	57	178
Musicians. Time-indicating device for.....	I. G. Lawshe.....	445,119	Jan. 20	1830	{ 474 475 }	54	373
Musk. Artificial.....	A. Baur.....	451,847	May 5	604	{ 55 56 }	55	695
Mustache-trainer.....	I. Commons.....	447,633	Mar. 3	587	{ 145 146 }	54	1228
Muzzle.....	E. B. Webber.....	459,557	Sept. 15	1600	{ 400 401 }	56	1391
Muzzle. Blanket.....	N. Gillespie.....	457,193	Aug. 4	402	{ 105 106 }	56	609
Muzzle. Dog.....	F. L. A. Canary.....	459,609	Sept. 15	1683	{ 421 422 }	56	1407
Nail:							
See Shoe-nail. Tapered and pointed nail.							
Sidewalk-nail.							
Nail.....	A. Marceau.....	464,744	Dec. 8	1146	{ 284 285 }	57	1362
Nail.....	L. Ondeshlyts.....	465,285	Dec. 15	2037	{ 520 521 }	57	1541
Nail.....	G. T. Shepley.....	451,213	Apr. 28	2448	{ 605 606 }	55	498
Nail-sorting machine.....	C. W. Glidden.....	464,196	Dec. 1	294	{ 72, 73 74 }	57	1190
Nail-cutter.....	J. T. Lewis.....	464,341	Dec. 1	526	{ 128 129 }	57	1234
Nail-cutting machine.....	E. H. Bissett.....	457,416	Aug. 11	822	{ 211 212 }	56	693
Nail-extractor.....	G. J. Capewell.....	444,948	Jan. 20	1573	{ 403 404 }	54	322

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Nail-extractor.....	M. J. Poindexter.....	457,925	Aug. 18	1643	430	56	858
Nail feeder. Wire.....	H. Hartsuff and J. Murphy.....	445,344	Jan. 27	2180	564	54	451
Nail-machine.....	C. E. Houghton.....	462,968	Nov. 10	1193	309 310 310 311	57	791
Nail-machine.....	C. E. Houghton.....	462,969	Nov. 10	1196	476 477	57	791
Nail-machine.....	C. E. Houghton.....	463,362	Nov. 17	1823	478	57	920
Nail-machine.....	C. E. Houghton.....	463,363	Nov. 17	1826	478	57	921
Nail-machine.....	C. E. Houghton.....	463,364	Nov. 17	1828	478	57	921
Nail-machine.....	C. E. Houghton.....	463,365	Nov. 17	1830	479	57	922
Nail-machine.....	C. E. Houghton.....	465,762	Dec. 22	2801	717 718	57	1698
Nail-machine.....	G. W. Packer.....	448,585	Mar. 17	2135	535 536	54	1513
Nail machine. Wire.....	A. B. Glover.....	458,391	Aug. 25	2400	585	56	1009
Nail machine. Wire.....	J. von Serkey.....	448,620	Mar. 17	2204	551 552 553 554	54	1556
Nail machine. Wire.....	J. W. Thompson.....	445,097	Jan. 20	1795	463 464	54	366
Nail-making attachment. Wire.....	G. W. McKim.....	447,895	Mar. 10	1022	257 258	54	1319
Nail-making machine.....	O. K. Cole and J. B. Hastings.....	463,099	Nov. 10	1387	359	57	830
Nail-making machine.....	J. H. Thompson.....	445,722	Feb. 3	339	89	54	579
Nail-making machine. Wire.....	J. R. Hoskin.....	460,720	Oct. 6	304	74, 75	57	60
Nail or spike.....	S. S. Deemer.....	450,861	Apr. 21	1892	462	55	382
Nail-plate feeder.....	C. E. Houghton.....	459,546	Sept. 15	1582	396 397	56	1398
Nail-puller.....	W. E. Pettengill.....	445,077	Jan. 20	1769	456	54	361
Nail-puller.....	A. F. Street.....	456,603	July 28	2076	549	56	420
Nail set.....	F. W. Beach.....	454,512	June 23	2007	520	55	1555
Nails. Machine for pointing cut.....	B. Yoch.....	465,960	Dec. 29	3121	800	57	1768
Nails. Machine for polishing, cleaning, and packing wire.....	B. H. Gedge.....	458,571	Sept. 1	37	8	56	1073
Nails. Machinery for making rolled-wire.....	W. O. Tyers.....	457,237	Aug. 4	476	125 126	56	622
Nails. Making furniture.....	J. Berbecker.....	457,597	Aug. 11	1105	282	56	747
Nails out of kegs. Device for taking.....	R. C. Arnett.....	465,312	Dec. 15	2078	531	57	1549
Nails. Preparing wire.....	J. Pender and W. O. Purdy.....	449,861	Apr. 7	329	.....	55	66
Nailing implement.....	H. McCormack.....	462,848	Nov. 10	1001	259	57	754
Nailing-machine.....	W. S. Doig.....	461,014	Oct. 13	733	189	57	150
Nailing-machine.....	S. W. Robinson and S. P. Watt.....	447,358	Mar. 3	130	36, 37	54	1142
Nailing machine. Box.....	W. S. Doig.....	461,013	Oct. 13	728	188 189	57	149
Nailing machine. Hand.....	S. E. Crawford.....	447,398	Mar. 3	204	53, 54	54	1156
Nailing-machine reel.....	H. Weeks.....	464,234	Dec. 1	359	87	57	1201
Nailing machines. Apparatus for feeding nails to box.....	J. M. Webster.....	451,349	Apr. 28	2658	658	55	540
Nailing-machines. Horn for.....	L. Godda.....	456,113	July 14	1276	335	56	252
Name-plate pattern.....	J. H. Kator.....	445,785	Feb. 3	445	111	54	599
Napping-machine.....	A. Millers.....	458,185	Aug. 25	2042	529	56	942
Napping or other machines. Roll for.....	J. D. Schofield.....	455,729	July 7	703	185	56	135
Nautical observations. Instrument for taking.....	W. H. Beehler.....	464,261	Dec. 1	407	97, 98	57	1211
Neck tie or scarf and making the same.....	W. B. Erskine.....	444,880	Jan. 20	1449	377	54	300
Neckscarf.....	L. H. Bartlett.....	460,259	Sept. 29	2688	770	56	1614
Neckscarf.....	W. B. Erskine.....	445,137	Jan. 20	1858	482	54	379
Neckscarf.....	L. Eschner.....	446,253	Feb. 10	1246	304	54	759
Neckscarf.....	L. Eschner.....	453,468	June 2	463	110	55	1236
Neckscarf.....	I. Noar.....	461,766	Oct. 20	1990	492	57	395
Neckscarfs. Tying-guide for.....	L. E. Myers.....	455,235	June 30	3250	825	55	1796
Necktie.....	C. Goldthwait.....	449,775	Apr. 7	203	52	55	41
Necktie.....	A. Kaskel.....	459,068	Sept. 8	819	189	56	1232
Necktie.....	G. W. Lond.....	448,444	Mar. 17	1933	486	54	1504
Necktie-fastener.....	H. A. Berger.....	450,881	Apr. 21	1923	472	55	388
Necktie-fastener.....	A. J. Cole.....	458,016	Aug. 18	1791	468	56	886
Necktie-fastener.....	L. Greenwald.....	460,204	Sept. 29	2614	652	56	1599
Necktie-fastener.....	J. M. Gullbert.....	459,362	Sept. 8	1278	315	56	1322
Necktie-fastener.....	F. H. Howard.....	447,326	Mar. 3	70	19	54	1131
Necktie-fastener.....	J. Metz.....	450,248	Apr. 14	911	225	55	181
Necktie-fastener.....	J. A. Morris.....	464,886	Dec. 8	1349	339	57	1402
Necktie-fastener.....	E. C. Sohn.....	455,801	July 14	825	215	56	168
Necktie-fastener.....	J. Walter.....	454,311	June 16	1692	442	55	1438
Necktie-fastening.....	C. H. Bowman.....	462,232	Nov. 3	11	3	57	554
Neckties. Device for retaining.....	A. T. Tompkins.....	450,699	Apr. 21	1638	393	55	335
Needle employed in the manufacture of felted fabrics.....	A. J. Boulton.....	461,602	Oct. 20	1722	421 422	57	344
Needle-points. Machine for polishing.....	W. H. Dayton.....	449,313	Mar. 31	3314	836	54	1781
Needle. Ribbon.....	C. F. Hathaway.....	445,316	Jan. 27	2138	553	54	443
Needle-threader.....	J. Darling, W. G. Blow, and J. Darling, Jr.....	457,474	Aug. 11	912	234	56	709
Needle-threader.....	W. H. Lighty.....	462,147	Oct. 27	2593	646	57	518
Net. Fish.....	L. A. Johnson.....	446,755	Feb. 17	2029	506	54	926
Net for crabbing and fishing.....	R. M. Franklin.....	446,440	Feb. 17	1550	381	54	832
Net for horses. Fly.....	E. V. Stryker.....	460,605	Oct. 6	90	25	57	20
Net-frame.....	A. F. and W. Meisselbach.....	452,381	May 19	1518	377	55	878
Nets. Machine for making.....	W. J. Hooper, G. T. Pillings, and G. W. Price.....	454,355	June 16	1753	455 456 457	55	1499
Netting-machine.....	R. Young.....	463,115	Nov. 10	1434	367 368	57	837
Netting-machine.....	R. Young.....	463,116	Nov. 10	1427	369 370	57	837

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Newspaper-cover	J. Davis	449,210	Mar. 31	3131	790	54	1749
Newspaper-holder	W. C. Roberts	461,049	Oct. 13	782	200	57	158
Newspaper-holder	D. Wagner	445,435	Jan. 27	2310	599	54	477
Newspaper-vending apparatus	B. Mossler	444,502	Jan. 13	825	215	54	173
Newspapers. Machine for folding and mailing	J. E. Sawm	456,599	July 28	2066	547	56	419
Newspapers or other periodicals. Apparatus for applying strips to	R. D. Brain and C. T. Shafer	444,167	Jan. 6	310	75		
Nickel and carbon monoxide. Compound of	L. Mond	455,229	June 30	3242	.....	55	1795
Nickel and carbon monoxide. Making compounds of	L. Mond	455,227	June 30	3240	.....	55	1795
Nickel. Depositing	L. Mond	455,230	June 30	3243	.....	55	1795
Nickel. Obtaining metallic	L. Mond	455,228	June 30	3241	.....	55	1795
Nipper or wire-cutter	J. P. Nessler	444,764	Jan. 13	1235	321	54	249
Nippers	D. A. Hamilton	451,668	May 5	345	85	55	644
Nippers. Cutting	R. Hayden	452,916	May 26	2372	601	55	1048
Nippers. Cutting	J. W. Marsh and H. W. Fisher	450,174	Apr. 14	774	196	55	157
Nippers. Cutting	S. O. Ront	458,860	Sept. 1	489	119	56	1158
Nippers. Police	J. Blakely	456,936	Aug. 4	10	3	56	534
Nippers. Police	M. S. Thomas	446,616	Feb. 17	1808	447	54	883
Nipple for nursing-bottles	T. C. Chalk	453,621	June 9	706	182	55	1290
Nipple-holder	C. T. Hacken	445,949	Feb. 3	704	172	54	651
Nipple-holder	H. B. Spencer	456,860	July 28	2516	660	56	502
Nitro-cellulose. Making	H. Maxim	465,280	Dec. 15	2027	518	57	1539
Nitro-glycerine. Making	E. K. Mitting	457,002	Aug. 4	111	28	56	555
Non-conducting compound	F. Sprinkmann	445,358	Jan. 27	2201	.....	54	456
Non-conducting coverings. Applying	W. S. Grubb	466,035	Dec. 29	3271	834	57	1797
Non-explosive can	M. Lappe	464,606	Dec. 8	915	925		
Non-heat-conducting composition	H. M. Hammere	453,354	June 2	273	73	55	1199
Noodle-cutting machine	A. Skuhorvins and S. Fuldheim	457,624	Aug. 11	1144	292	56	755
Nose-bag	G. D. Leonard	453,718	June 9	856	221	55	1317
Nose-bag	G. D. Leonard	453,719	June 9	857	221	55	1317
Nose-ring for animals	E. K. Rea	453,940	June 9	1156	302	55	1377
Note-case	M. Hoeft	459,290	Sept. 8	1165	284	56	1300
Nozzle. Exhaust	J. Player	449,825	Apr. 7	279	74	55	56
Nozzle for street-sprinklers	W. H. Miller	456,767	July 28	2364	622	56	475
Nozzle. Lubricating discharge	O. R. Chase	445,711	Feb. 3	322	85	54	576
Nozzle. Shut-off	C. R. Robinson	463,779	Nov. 24	2483	648	57	1055
Nozzle. Shut-off	F. W. Scott	464,335	Dec. 1	518	126	57	1233
Nozzle. Variable	A. A. Charonnat	458,762	Sept. 1	322	78	56	1127
Number-registers. Automatic step for	J. Lecher	456,196	July 21	1410	374	56	287
Numbering head. Consecutive	T. F. Geary	461,408	Oct. 13	1358	342		
Numbering-machine	E. G. Bates	456,874	July 28	2535	666	56	506
Numbering-machine	T. J. A. MacDonald	450,783	Apr. 21	1756	426	55	358
Numbering-machine. Consecutive	R. Hammer	461,196	Oct. 13	1004	256		
Numbering-machine. Hand	J. H. Reinhardt	461,186	Oct. 13	979	252	57	194
Nut	T. J. Nicholl	460,266	Sept. 29	2707	674	56	1616
Nut and bolt lock	M. A. Lee	463,521	Nov. 17	2052	537	57	966
Nut and pipe wrench. Combined	D. H. Carpenter	446,324	Feb. 10	1358	331	54	731
Nut-blank bar	J. C. Richardson	461,932	Oct. 27	2273	563	57	458
Nut for securing pinions on shafts. Differential	N. C. Bassett	454,019	June 16	1269	329	55	1405
Nut-lock	M. S. Alexander	449,023	Mar. 24	2-34	719	51	1684
Nut-lock	T. H. Apgar	461,515	Oct. 20	1595	389	57	320
Nut-lock	W. C. Ayres	452,511	May 19	1734	436	55	916
Nut-lock	H. T. Barlet	445,029	Jan. 20	1688	434	54	346
Nut-lock	P. Brasnahan, L. Richardson, and A. Fritschl	466,014	Dec. 29	3234	824	57	1790
Nut-lock	S. M. Churchill	452,662	May 19	1968	494	55	962
Nut-lock	C. C. Clay	444,816	Jan. 20	1308	340	54	273
Nut-lock	J. W. B. Cook	452,945	May 26	2434	614	55	1061
Nut-lock	A. C. Deal	457,772	Aug. 18	13-0	357	56	810
Nut-lock	F. M. Difany	449,211	Mar. 31	3133	790	54	1749
Nut-lock	M. B. Earnest	461,605	Oct. 20	1725	422	57	345
Nut-lock	G. C. Elliott	445,166	Jan. 27	1916	495	54	399
Nut-lock	H. G. Fittler and W. H. Armstrong	447,509	Mar. 3	403	99	54	1194
Nut-lock	A. Fongère	465,094	Dec. 15	1724	438	57	1482
Nut-lock	W. Gledhill	448,183	Mar. 10	1473	375	54	1408
Nut-lock	B. F. Gram and W. Bard	447,311	Mar. 3	45	11	54	1126
Nut-lock	H. W. Gray	465,848	Dec. 29	2939	752	57	1734
Nut-lock	S. Green	465,760	Dec. 22	2798	716	57	1697
Nut-lock	P. B. Grimes	447,771	Mar. 10	805	200	54	1278
Nut-lock	P. B. Grimes	465,849	Dec. 29	2940	752	57	1734
Nut-lock	F. B. Harvey	445,469	Jan. 27	2354	611	54	485
Nut-lock	J. W. Hindman	459,185	Sept. 8	1007	246	56	1268
Nut-lock	G. H. Ives	464,303	Dec. 1	476	114	57	1225
Nut-lock	F. L. Jones	448,432	Mar. 17	1911	481	54	1500
Nut-lock	P. J. Kanen	452,865	May 26	2288	574	55	1033
Nut-lock	T. J. Kennedy	459,889	Sept. 22	2139	537	56	1502
Nut-lock	S. E. Kildoye	462,643	Nov. 3	664	168	57	679
Nut-lock	M. Kroell	454,364	June 16	1772	461	55	1501
Nut-lock	A. Loehner	462,318	Nov. 3	160	41	57	581
Nut-lock	T. McDonald, Jr.	461,758	Dec. 8	1167	291	57	1366
Nut-lock	J. Morrison	455,347	July 7	71	20	56	18
Nut-lock	J. Nase	462,016	Oct. 27	2289	592	57	480
Nut-lock	R. W. Norwood	464,440	Dec. 1	665	163	57	1261
Nut-lock	H. G. Paine	460,988	Oct. 13	697	180	57	143
Nut-lock	J. T. Pearman	459,645	Sept. 15	1757	442	56	1420
Nut-lock	T. P. Pollard	447,697	Mar. 3	673	168	54	1245
Nut-lock	A. F. Pritschan	447,738	Mar. 3	738	185	54	1257
Nut-lock	F. Reynard	453,660	June 9	759	196	55	1299
Nut-lock	W. B. Reynolds	458,492	Aug. 25	2560	624	56	1038

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Nut-lock	D. Rhodes	451,072	Apr. 28	2210	547	55	453
Nut-lock	J. C. Richardson	450,377	Apr. 14	1120	274	55	220
Nut-lock	A. B. Schofield	451,174	Apr. 28	2369	589	55	485
Nut-lock	E. W. Sprague	447,703	Mar. 3	682	169	54	1247
Nut-lock	R. Squires	464,591	Dec. 8	896	320	57	1316
Nut-lock	F. F. Stevens	463,650	Nov. 24	2295	602	57	1020
Nut-lock	F. F. Unckrich	448,385	Mar. 17	1835	462	54	1486
Nut-lock	F. F. Unckrich	453,222	June 2	63	17	55	1160
Nut-lock	A. C. Vaughan	449,983	Apr. 7	502	125	55	97
Nut-lock	D. O. Ward	458,782	Sept. 1	354	86	56	1133
Nut-lock	C. D. Watkins	458,083	Aug. 18	1881	490	56	905
Nut-lock	J. W. Watson and R. F. Randolph	459,801	Sept. 22	1991	501	56	1472
Nut-lock	T. R. White	451,717	May 5	415	101	55	658
Nut. Lock	J. H. Young	447,224	Feb. 24	2840	704	54	1089
Nut. Lock-up	S. F. Clouser	449,069	Mar. 24	2907	737	54	1698
Nut-making machine	J. H. Burdick	460,553	Oct. 6	10	3	57	4
Nut-tapping machine	C. L. Chapman	444,062	Jan. 6	127	32	54	28
Nut-thread-cutting machine	J. C. Githens	456,324	July 21	1616	427 428	56	326
Nut-wrench	W. H. Cox	466,071	Dec. 29	3323	548	57	1808
Nut-wrench	R. L. Fosburgh and J. F. Milligan	455,484	July 7	292	74	56	59
Nut-wrench	W. H. Rogers	460,403	Sept. 29	2918	729	56	1656
Nut-wrench	J. W. Sullivan	459,072	Sept. 8	824	200	56	1232
Nuts and washers. Method of and apparatus for making	J. P. Mason and S. L. Wiegand	444,918	Jan. 20	1525	392	54	314
Nuts, dies, and such like articles. Device for operating the parts of split	J. B. Baird	465,622	Dec. 22	2595	659	57	1657
Nuts, grains, &c. Revolving cleaner for	B. H. Vellines	464,468	Dec. 1	706	172	57	1269
Nuts in operations on track-irons. Machine for applying	R. Allen and H. Ross	461,727	Oct. 20	1924	476	57	382
Nuts. Manufacture of	J. H. Burdick	460,554	Oct. 6	13	3.4	57	5
Nuts on bolts. Appliance for locking	A. Gross	461,678	Oct. 20	1848	457	57	368
Nuts or grain. Machine for facilitating grade separation of	B. H. Vellines	463,976	Nov. 24	2800	726	57	1115
Oar. Bow-facing	G. R. Merritt	457,655	Aug. 11	1180	303	56	762
Oar or paddle. Feathering	G. O. Houck and J. G. Dice	451,431	Apr. 28	2784	688	55	563
Oat-clipping machine	W. G. Adams	458,138	Aug. 18	1967	510	56	921
Oat-cutter	J. A. Laws	463,059	Nov. 10	1325	343	57	817
Oats or cotton-seed. Machine for hulling	M. W. Leonhardt. (Reissne)	11,200	Nov. 3	729	189	57	691
Obstetrical apparatus	F. W. Patton	456,259	July 21	1516	402	56	307
Obstetrical device	L. Q. Thompson	459,027	Sept. 8	756	183	56	1220
Obstetrical forceps	W. H. Hamilton	451,930	May 12	756	191	55	728
Obstetrical forceps	J. J. E. Maher	466,173	Dec. 29	3481	889	57	1439
Obstetrical harness	W. A. Conant	447,870	Mar. 10	983	246	54	1311
Odometer	J. S. Hilliard	448,716	Mar. 24	2373	594	54	1595
Odometer	W. H. and J. J. Musselman	464,982	Dec. 15	1508	378	57	1443
Odometer	F. J. Reinhold and A. W. Slayton	450,380	Apr. 14	1122	275	55	221
Office-indicator	R. E. Kingsford	452,899	May 26	2349	594	55	1044
Oil, air, and steam, and for injecting the same into furnaces or retorts. Apparatus for effecting the admixture of	J. Burns	456,111	July 14	1273	334	56	251
Oil and grease extractor	T. H. Gilbert	451,816	May 5	569	140	55	687
Oil and making the same. Drying	N. H. Finley	456,890	July 28	2560	550 551 552	56	510
Oil and regulating the action of hydrostatic presses. Process of and apparatus for expressing	J. H. Vaile	456,606	July 28	2080	550 551 552	56	421
Oil. Apparatus for refining	B. N. Hawes	444,833	Jan. 20	1340	348	54	279
Oil-burner	J. H. Graham	445,015	Jan. 20	1672	429	54	342
Oil-burner	J. Lyle	453,357	June 2	275	73	55	1199
Oil-burner	G. R. Moore	462,770	Nov. 10	868	228	57	727
Oil-burner	W. A. Myers	453,346	June 2	259	18	55	1197
Oil-burner	A. U. Page and D. A. Stewart	452,314	May 12	1391	316	55	845
Oil-burner	C. H. Straffin	459,599	Sept. 15	1672	418	56	1405
Oil-burner	A. S. Upsou and F. A. Smith	451,784	May 5	520	128 129	55	677
Oil-burner	R. Winkler	460,902	Oct. 6	573	145	57	112
Oil-can	L. S. Bonbrake	446,809	Feb. 17	2110	525	54	944
Oil-can	L. H. Britton and H. W. Morrow	460,080	Sept. 22	2417	605	56	1553
Oil-can	S. Dunlap	465,467	Dec. 22	2328	598	57	1607
Oil-can	P. Good	465,559	Dec. 22	2495	637	57	1638
Oil-can	M. Jolly	445,061	Jan. 20	1748	450	54	557
Oil-can	C. E. Rand	445,127	Jan. 20	1841	477	54	375
Oil-can	A. J. Tschantz	451,229	Apr. 28	2476	611	55	503
Oil-can	C. B. Underhill	459,320	Sept. 8	1206	295	56	1308
Oil-can	W. C. Winfield	460,169	Sept. 29	2563	639	56	1559
Oil-can and lamp-filler	C. W. Proctor	453,913	June 9	1120	293	55	1369
Oil-can and siphon-pump	T. Bumann	456,758	July 28	2353	620	56	473
Oil can. Wood-cased	J. B. Melloy	460,145	Sept. 29	2527	629	56	1541
Oil-cup	C. H. Baker	445,490	Jan. 27	2388	621	54	491
Oil-cup	W. A. Downes	446,250	Feb. 10	1242	303	54	758
Oil-cup	T. McEntee	453,911	June 9	1118	292	55	1369
Oil-cup feeder	J. S. Donnellan	447,390	Mar. 3	26	7	54	1123
Oil. Extracting	E. G. Scott	465,031	Dec. 15	1617	57	1463	
Oil for general painting	J. C. Decker	451,035	June 16	1299	55	1469	
Oil. Lubricating	R. R. Graf	446,344	Feb. 10	1390	54	788	
Oil. Making cod-liver	P. M. Heyerdahl	459,873	Sept. 22	2110	56	1496	
Oil-meter	W. H. Phillips	465,495	Dec. 22	2376	608	57	1616
Oil. Means for storing and handling petroleum	L. C. Snell	444,731	Jan. 13	1180	304 305	54	239
Oil or gas burner	W. Wills	466,144	Dec. 29	3441	880	57	1831
Oil or similar press	W. C. Leechman	461,129	Oct. 13	86	230	57	178
Oil-press	P. Ribard	458,002	Aug. 18	1775	464	56	883
Oil. Process of and apparatus for purifying	J. J. Lowden	465,822	Dec. 22	2287	738	57	1715
Oil. Process of and apparatus for refining cotton-seed	W. A. Grant	461,675	Oct. 20	1842	456	57	366

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Oil projectile and distributor	E. D. Moore	457,553	Aug. 11	1033	266	56	734
Oil projectile and distributor	E. D. Moore	457,554	Aug. 11	1036	266	56	735
Oil-purifying apparatus	J. J. Lowden	463,062	Nov. 10	1328	{ 343 344 }	57	818
Oil. Refining linseed	T. H. Gray	452,967	May 26	2466		55	1067
Oil. Tanner's	W. B. Davis	449,437	Mar. 31	3539		54	1823
Oils. Neutralizing sulpho-chlorinated	A. Sommer	451,531	May 5	127		55	604
Oils. Refining	J. D. Edwards	419,213	Mar. 31	3136	791	54	1750
Oiler	L. F. Gayott	454,001	June 9	1241	323	55	1393
Oiler	F. P. Noera	446,136	Feb. 10	1022	252	54	718
Oiler	J. T. Smith	459,462	Sept. 15	1447	364	56	1363
Oiler. Centrifugal	C. O. Heggem	447,282	Feb. 24	2940	731	54	1110
Oiler. Commutator	F. L. McGahan	461,105	Oct. 13	858	221	57	172
Oiler. Engine	J. G. Dalie	452,773	May 26	2149	538	55	1006
Oiler for reciprocating engines	R. W. Eames	453,580	June 2	627	160	55	1265
Oiler. Journal	G. Kinfrock and G. Veesenmeyer	461,426	Oct. 20	1385	350	57	282
Oiler. Loose-pulley	C. T. Brandon	460,908	Oct. 6	583	148	57	114
Oiling device. Windmill	W. R. Wright	416,401	Feb. 10	1472	362	54	805
Ointment	L. Miles	451,307	Apr. 28	2601		55	529
Onion-top cutter	H. G. Brakensiek	461,491	Oct. 20	1548	380	57	312
Open-circuit battery	J. F. Wollensak and W. E. Gill (Reissue.)	11,207	Dec. 1	738	180	57	1276
Opera-chair	S. W. Peregrine	464,388	Dec. 1	593	146	57	1246
Opera-chair	N. Vilen	461,225	Oct. 13	1062	268	57	211
Opera-glass attachment	C. H. Truax	459,242	Sept. 8	1091	266	56	1284
Opera-glass case	D. A. Lowthome	463,634	Nov. 24	2206	597	57	1015
Opera-glass. Collapsible	G. H. Eaton and J. L. Patch	463,660	Nov. 24	2308	606	57	1022
Opera-glass holder	J. U. Gerow	449,531	Mar. 31	3075	924	54	1849
Opera-glasses	J. Green	450,409	Apr. 14	1166	284	55	229
Opera-glasses	C. A. Perkins and W. H. H. Norcross	446,611	Feb. 17	1799	445	54	882
Opera-glasses. Coin-operated	H. M. Wilson	461,558	Oct. 20	1658	405	57	332
Operating-table	J. Atkinson	452,531	May 12	1440	356	55	854
Optical illusions. Coin-freed apparatus for exhibiting	E. Edwards	459,065	Sept. 8	815	198	56	1231
Optical illusions. Means for producing	H. C. Roemer and C. M. Kimball	462,510	Nov. 3	451	111	57	636
Optical measurements. Gage for centering lenses and making other	A. L. Smith	458,922	Sept. 1	583	142	56	1177
Opticians and oculists. Test-type for	E. and L. Claudel	461,320	Oct. 13	1197	305	57	240
Optometer	C. G. Stevens	446,032	Feb. 10	855	208	54	686
Orange-knife and nut-pick. Combined	H. M. Hamrick	461,914	Oct. 27	2239	553	57	451
Orange-sizer	J. J. McClendon	458,061	Aug. 18	1855	483	56	899
Orange-wrapping machine	T. Hiatt	446,451	Feb. 17	1566	{ 385 386 }	54	836
Order-holder	J. F. Brown	444,811	Jan. 20	1302	338	54	272
Ordinance battery	S. P. Hatfield	451,004	Apr. 21	2117	{ 522 523 }	55	426
Ordinance. Breech-closing mechanism for	H. Schneider	464,678	Dec. 8	1032	{ 258 259 }	57	1341
Ordinance. Breech-loading	J. B. G. A. Canet	447,228	Feb. 24	2850	707	54	1090
Ordinance. Breech-loading	G. Gerdon	451,241	Apr. 28	2500	616	55	509
Ordinance. Breech-loading	E. G. Parkhurst	464,518	Dec. 8	791	{ 193 194 }	57	1295
Ordinance. Breech-loading	H. Schneider	449,335	Mar. 31	3351	845	54	1787
Ordinance. Breech-loading	S. Seabury	448,269	Mar. 17	1627	{ 415 416 }	54	1446
Ordinance. Breech-loading	E. von Skoda	449,711	Apr. 7	102	27	55	22
Ordinance. Breech-loading	E. von Skoda	458,505	Aug. 25	2581	629	56	1043
Ordinance. Breech-loading	C. W. Sponsel	447,376	Mar. 3	161	44.45	54	1148
Ordinance. Breech-loading	F. H. Wilks	446,496	Feb. 17	1636	401	54	850
Ordinance. Hydraulic brake for	J. B. G. A. Canet	456,016	July 14	1151	{ 301 302 }	56	227
Ordinance. Hydraulic brake for	J. Krone	461,347	Oct. 13	1239	316	57	248
Ordinance. Hydraulic brake for	J. Krone	462,970	Nov. 10	1199	{ 311 312 }	57	792
Ordinance. Loading	L. Gathmann	445,399	Jan. 27	2260	587	54	467
Ordinance. Making	R. J. Gatling	433,833	June 9	1018	{ 265 266 }	55	1349
Ordinance, &c. Manufacture of	J. E. Bott	463,224	Nov. 17	1595		57	877
Ordinance on ships. Apparatus for automatically regulating the firing of	M. J. Cuadros	455,176	June 30	3169	803	55	1780
Ordinance. Process of and apparatus for hardening	H. S. Maxim	446,532	Feb. 17	1693	{ 415 416 }	54	861
Ordinance. Rifled	G. R. Elliott	452,601	May 19	1873	471	55	944
Ordinance-shield	P. McMahon	453,088	May 26	2661	671	55	1105
Ore concentrating and separating apparatus	C. M. Fitch	453,928	June 9	1139	298	55	1373
Ore-concentrating machine	G. E. Woodbury	465,979	Dec. 29	3156	{ 808 809 }	57	1775
Ore-concentrating machinery	C. M. Fitch	450,063	Apr. 7	608	{ 153 154 }	55	118
Ore-concentrator	M. Castelnau	446,055	Feb. 10	895	217	54	693
Ore-concentrator	M. Castelnau	446,963	Feb. 24	2381	{ 502 503 }	54	1002
Ore-concentrator	E. W. Clark	463,482	Nov. 17	2004	{ 524 525 }	57	956
Ore-concentrator	F. M. Endlich	461,425	Oct. 20	1383	350	57	282
Ore-concentrator	A. Fraser	459,684	Sept. 15	1809	{ 454 455 }	56	1431
Ore-concentrator	W. J. Hammond and J. Gordon	450,013	Apr. 7	540	135	55	105
Ore-concentrator	G. D. Husemann	448,971	Mar. 24	2742	{ 691 692 }	54	1666
Ore-concentrator	F. Manuel and K. M. Reeves	452,676	May 19	1989	498	55	966
Ore-concentrator	F. B. Morse	449,292	Mar. 31	3261	228	54	1773
Ore-concentrator	H. Scovell	452,393	May 19	1518	321	55	882
Ore-concentrator	F. C. L. Sergeant	444,785	Jan. 13	1260	326	54	254

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Ore-concentrator.....	C. E. Seymour.....	456,967	Aug. 4	68	17	56	546
Ore-concentrator.....	C. E. Seymour.....	456,968	Aug. 4	70	17	56	546
Ore-concentrator.....	C. E. Seymour.....	459,858	Sept. 22	2085	523	56	1492
Ore-concentrator.....	C. E. Seymour.....	461,893	Oct. 27	2198	542	57	444
Ore-concentrator.....	L. W. Young and H. E. Parson	450,280	Apr. 14	950	236	55	189
Ore-concentrator and amalgamator.....	J. D. Coplen.....	444,275	Jan. 6	467	119	54	92
Ore-crusher.....	W. L. Morris.....	450,890	Apr. 21	1934	474	55	390
Ore-crusher.....	G. and A. Raymond.....	464,083	Dec. 1	116	29, 30	57	1159
Ore-crusher.....	A. H. Schierholz.....	459,657	Sept. 15	1774	446	56	1423
Ore-crusher.....	P. R. Shill.....	462,103	Oct. 27	2521	626	57	505
Ore-crusher and sizer.....	W. L. Ireland and P. R. Stanhope.....	449,096	Mar. 24	2947	747	54	1706
Ore-drying and pulverizing apparatus.....	J. K. Hallowell.....	447,028	Feb. 24	2489	619	54	1022
Ore-feeder.....	J. Tulloch.....	460,733	Oct. 6	321	79	57	63
Ore-grinding and amalgamating apparatus.....	F. Stabl and J. S. Rew.....	457,541	Aug. 11	1015	{ 260 261 }	56	730
Ore-leaching machine.....	P. L. Gibbs.....	456,323	July 21	1614	426	56	325
Ore-mill.....	C. S. Jones.....	450,236	Apr. 14	892	222	55	178
Ore. Process of and apparatus for the reduction of.....	C. J. Eames.....	455,458	July 7	251	63, 64	56	50
Ore or rock breaker.....	C. G. Buchanan.....	446,658	Feb. 17	1876	466	54	896
Ore-rifle.....	G. H. Chick.....	448,710	Mar. 24	2362	591	54	1593
Ore-roasting dish.....	W. F. Oden.....	454,759	June 23	2398	615	55	1628
Ore-roasting furnace.....	J. L. Giroux.....	453,769	June 9	931	241	55	1332
Ore-roasting furnace.....	P. Marley.....	456,517	July 21	1938	511	56	387
Ore-roasting furnace.....	F. O'Brien.....	464,103	Dec. 1	144	36	57	1164
Ore-roasting furnace.....	G. N. Phelps.....	446,996	Feb. 24	2430	605	54	1012
Ore-roasting furnace.....	J. and B. C. Leyson.....	453,120	May 26	2711	683	55	1116
Ore-sampling device.....	D. W. Brumton.....	454,120	June 16	1408	368	55	1432
Ore-sampling device.....	R. C. Hawley.....	463,509	Nov. 17	2038	534	57	963
Ore-sampling machine.....	H. L. Bridgman.....	457,145	Aug. 4	324	83, 84	56	595
Ore-screen.....	T. J. Grier.....	448,762	Mar. 24	2448	612	54	1609
Ore-separating apparatus.....	J. K. Hallowell.....	447,027	Feb. 24	2488	619	54	1022
Ore-separator.....	A. Clément-Conti.....	448,319	Mar. 17	1728	{ 437 438 }	54	1466
Ore-separator.....	W. G. Conkling.....	464,816	Dec. 8	1248	312	57	1382
Ore-separator.....	E. G. Good and J. Thorne.....	455,531	July 7	370	94, 95	56	72
Ore-separator.....	W. D. Hoffman.....	463,305	Nov. 17	1726	451	57	902
Ore-separator.....	H. H. Taylor.....	460,732	Oct. 6	329	78, 79	57	63
Ore-separator. Electro-magnetic.....	J. Wenström.....	455,808	July 14	840	221	56	169
Ore-separator. Magnetic.....	C. M. Ball.....	465,349	Dec. 15	2149	550	57	1561
Ore-separator. Magnetic.....	C. G. Buchanan.....	446,767	Feb. 17	2045	{ 509 510 }	54	930
Ore-separator. Magnetic.....	J. P. Conkling.....	451,369	Apr. 28	2685	{ 665 666 }	55	545
Ore-separator. Magnetic.....	J. P. Conkling.....	451,370	Apr. 28	2686	666	55	545
Ore-separator. Magnetic.....	H. G. Fiske.....	455,985	July 14	1099	289	56	217
Ore-separator. Magnetic.....	C. Q. Payne.....	444,223	Jan. 6	396	99	54	79
Ore-washer.....	J. O. Campbell.....	455,654	July 7	575	149	56	111
Ore-washer.....	H. S. Davis.....	464,431	Dec. 1	650	160	57	1258
Ore-washer.....	W. S. Hull and J. C. Anderson.....	450,756	Apr. 21	1711	414	55	350
Ore-washer.....	S. C. McLanahan and W. F. Kirk.....	445,430	Jan. 27	2305	598	54	476
Ore-washer.....	F. C. Miller.....	451,289	Apr. 28	2577	636	55	524
Ore washer and concentrator.....	C. F. Pike.....	458,837	Sept. 1	450	168	56	1151
Ore washer or concentrator.....	C. F. Pike.....	458,958	Sept. 1	636	156	56	1159
Ores. Apparatus for deoxidizing, melting, and puddling iron.....	H. A. Jones.....	466,045	Dec. 29	3227	{ 838 839 }	57	1801
Ores. Apparatus for electrolytically separating metals from.....	W. von Siemens.....	460,354	Sept. 29	2853	{ 710 711 }	56	1645
Ores. Bricking fine.....	T. A. Edison.....	465,251	Dec. 15	1974	.....	57	1530
Ores. Extracting antimony from.....	C. Schreiber and H. Knutsen.....	459,023	Sept. 8	750	.....	56	1219
Ores. Flux for smelting or reducing.....	T. Miller.....	456,311	July 21	1596	.....	56	322
Ores for amalgamation. Preparing.....	H. S. Myers.....	447,344	Mar. 3	105	.....	54	1138
Ores. Grading and concentrating.....	H. Scovell.....	454,071	June 16	1341	351	55	1420
Ores magnetically. Process of and apparatus for separating.....	C. M. Ball and S. Norton.....	449,726	Apr. 7	127	32	55	27
Ores. Treating metalliferous.....	F. H. Molesworth.....	465,872	Dec. 29	2973	759	57	1740
Organ.....	J. H. Chase and J. B. Tracy.....	445,044	Jan. 20	1722	444	54	352
Organ.....	A. H. Dixon.....	448,508	Mar. 17	2025	{ 506 507 }	54	1521
Organ.....	J. B. Hamilton.....	461,242	Oct. 13	1087	275	57	217
Organ.....	J. R. Hessler.....	451,124	Apr. 28	2285	565	55	468
Organ.....	F. Roosevelt.....	449,177	Mar. 31	3080	777	54	1739
Organ.....	F. Roosevelt and W. N. Elbert.....	449,590	Mar. 31	3769	946	54	1866
Organ.....	M. D. Van Winkle.....	464,276	Dec. 1	425	101	57	1215
Organ-action.....	M. Clark.....	447,760	Mar. 10	782	{ 194 195 }	54	1273
Organ adjusting device.....	J. Mueller.....	461,641	Oct. 20	1789	441	57	356
Organ. Automatic.....	G. F. Wells.....	462,460	Nov. 3	384	94, 95	57	623
Organ. Cabinet.....	M. Clark.....	463,572	Nov. 17	2149	{ 567 568 }	57	984
Organ-pedal.....	E. H. Loring.....	465,279	Dec. 15	2026	518	57	1539
Organ-pedal attachment.....	M. B. Crowell.....	447,560	Mar. 3	477	117	51	1207
Organ. Pipe.....	J. Schwertner.....	465,390	Dec. 15	2213	{ 567 568 }	57	1574
Organ-pipes. Spring-clutch for.....	F. W. Hedgeland.....	464,937	Dec. 8	1413	356	57	1414
Organ. Reed.....	C. W. Egan.....	449,756	Apr. 7	175	43	55	36
Organ. Reed.....	W. E. Leighton.....	461,096	Oct. 13	846	219	57	170
Organ-reed.....	C. H. Kellermann.....	463,745	Nov. 24	2436	639	57	1046
Organ stop-action. Combination.....	G. S. Hutchings.....	451,380	Apr. 28	2698	670	55	547
Organ stop-action. Combination.....	J. S. and F. J. Steere.....	455,365	July 7	102	29	56	24
Organ-swell.....	J. Peloubet.....	457,131	Aug. 4	298	78	56	590
Organs. Combination stop-action for.....	L. D. Morris.....	456,768	July 28	2365	{ 622 623 }	56	475
Organs. Electric-motor attachment for reed.....	L. K. Fuller.....	444,169	Jan. 6	316	76	54	64

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Organs. Folding key-board for.....	F. W. Hedgeland.....	464,936	Dec. 8	1412	356	57	1414
Organs. Wind-chest for.....	C. G. Weigle.....	457,626	Aug. 11	1232	316	56	772
Organs. Wind-chest for pipe.....	E. S. Votey and W. D. Wood.....	462,784	Nov. 10	890	233	57	732
Ornamental panel. Composite.....	A. B. Cameron.....	455,095	June 30	3021	767	55	1752
Oscillating meter.....	R. A. Thayer and E. Everett.....	447,140	Feb. 24	2701	669	54	1061
Outhouse and refuse-burner. Odorless dry.....	T. W. Carrico.....	462,291	Nov. 10	1074	278	57	767
Outlines of objects. Instrument for describing.....	W. Potter.....	459,648	Sept. 15	1760	443	56	1421
Oven. Bake-.....	G. A. Fisher.....	457,191	Aug. 4	399	164	56	608
Oven. Baker's.....	F. Dührkop.....	465,923	Dec. 29	3060	784 785	57	1753
Oven. Baker's.....	E. A. C. Petersen.....	462,158	Oct. 27	2605	648 649	57	521
Oven. Baker's.....	E. A. C. Peterson.....	462,159	Oct. 27	2606	619	57	522
Oven. Baker's.....	J. Wagner.....	455,551	July 7	405	106 107	56	79
Oven. Baking.....	J. A. Holmes and G. Teske.....	463,193	Nov. 17	1550	404	57	868
Oven. Baking.....	J. H. Miller.....	463,067	Nov. 10	1344	348	57	821
Oven. Domestic.....	J. Watson.....	449,432	Mar. 31	3532	890	54	1822
Oven-door fastening.....	J. Thompson.....	451,085	Apr. 28	2227	551	55	457
Oven-door opening and closing mechanism.....	W. J. Keep.....	455,750	July 14	744	195	56	152
Oven. Electrically-heated.....	W. Mitchell.....	457,745	Aug. 11	1341	347	56	796
Oven or kiln. Gas.....	A. E. Detwiler.....	464,761	Dec. 8	1170	291	57	1366
Oven-plate.....	J. Brownback.....	465,424	Dec. 15	2263	580	57	1584
Ovens. Atomizer for bakers'.....	W. G. Bond.....	462,964	Nov. 10	1169	308	57	790
Ovens by gas. Apparatus for heating.....	J. L. W. Olsen.....	466,127	Dec. 29	3414	674	57	1626
Ovens. Construction of bakers'.....	G. S. Tunks.....	445,826	Feb. 3	526	126 127	54	614
Overalls, &c.....	I. Kuhn.....	464,826	Dec. 8	1264	316	57	1385
Overalls.....	M. Pfaff.....	452,528	May 19	1764	443	55	923
Overflow and waste pipe.....	H. F. Stowell.....	448,842	Mar. 24	2567	644	54	1633
Overseam work. Combined fabric and threads in.....	H. H. Fefel.....	450,720	Sept. 15	1868	469 470	56	1442
Overshoe.....	H. Eglev.....	447,564	Mar. 3	482	118	54	1208
Overshoe.....	J. F. O'Brien.....	462,950	Nov. 10	1168	303	57	785
Overshoe.....	W. H. Sprague.....	454,143	June 16	1443	377	55	1439
Overshoe.....	M. S. Varley.....	444,340	Mar. 31	3365	848	54	1789
Overshoe.....	W. F. Wahl.....	447,091	Feb. 24	2592	643	54	1042
Overshoe attachment.....	M. M. Beeman.....	448,756	Mar. 24	2438	610	54	1608
Overshoe attachment.....	J. H. Morison.....	465,189	Dec. 15	1883	477	57	1511
Oyster-bed. Artificial.....	A. M. Wilhs.....	456,390	July 21	1731	457	56	347
Oyster culture. Apparatus for.....	E. Walton, Sr.....	463,397	Nov. 17	1869	492	57	933
Oyster-tongs.....	F. T. Maddrix.....	448,059	Mar. 10	1292	330	54	1370
Oyster-tongs.....	J. B. Tawes.....	449,012	Mar. 24	2-20	714	54	1681
Oysters, &c. Preserving.....	A. A. Freeman.....	459,220	Sept. 8	1061	258	56	1278
Ozone water. Preparing.....	J. C. Dittrich.....	456,404	Apr. 14	1159		55	228
Package-carrier.....	S. R. Dummer.....	448,210	Mar. 17	1331	392	54	1424
Package-carrier.....	S. R. Dummer.....	457,499	Aug. 11	958	243	56	718
Package-elevator.....	B. Van Hennemik.....	449,453	Mar. 31	3566	899	54	1828
Package making and filling machine.....	H. E. Smyser.....	449,275	Mar. 31	3228	816 817 818 819	54	1767
Packages, &c. Apparatus for carrying.....	J. O. Kapp.....	448,050	Mar. 10	12-0	326	54	1368
Packages. Machine for automatically filling and weighing.....	N. L. Tuck and J. S. Merritt.....	461,651	Oct. 20	1803	444 445	57	359
Packing.....	E. Missel and L. Meyer.....	463,531	Nov. 17	2073	545	57	969
Packing.....	J. T. Smith.....	451,008	Apr. 21	2125	524	55	427
Packing and guard for adjustable spigots for kegs, &c.....	C. Bush.....	457,768	Aug. 18	1376	356	56	806
Packing. Balanced-slide-valve.....	W. S. Rogers.....	450,299	Apr. 14	977	242	55	194
Packing-case.....	H. C. Yocum and M. V. Kacer.....	445,869	Feb. 3	5-7	144	54	627
Packing-case for piston or other rods. Lubricating.....	F. Finch.....	460,400	Sept. 29	2914	728	56	1656
Packing. Composition adapted for steam.....	J. Johnson.....	451,693	May 5	3-4		55	652
Packing device.....	J. Park, Jr.....	444,784	Jan. 13	1259	326	54	254
Packing-extractor.....	A. Goodrich.....	458,453	Aug. 25	2492	606	56	1026
Packing for piston-rods.....	E. F. Lewis and F. T. Whaley.....	444,002	Jan. 6	31	9	54	9
Packing for piston-rods. Metallic.....	W. Roadhouse.....	449,949	Apr. 7	452	114	55	88
Packing for pistons. Metallic.....	J. D. Price.....	458,130	Aug. 18	1956	508	56	919
Packing for stuffing-boxes.....	H. E. Forrest.....	445,693	Feb. 3	293	77	54	570
Packing. Metallic.....	A. D. Kilborn and C. Young.....	466,170	Dec. 29	3478	888	57	1838
Packing. Metallic.....	E. P. Monroe.....	464,330	Dec. 1	514	123 124	57	1231
Packing. Metallic.....	E. P. Monroe.....	464,331	Dec. 1	515	124	57	1232
Packing. Metallic.....	E. P. Monroe.....	464,332	Dec. 1	516	124 125	57	1232
Packing. Metallic piston.....	N. Pfann.....	450,493	Apr. 14	1290	316	55	254
Packing. Metallic ring.....	J. S. Glenn.....	465,573	Dec. 22	2515	642	57	1642
Packing. Metallic ring.....	J. Wheelock.....	452,900	May 26	2350	595	55	1044
Packing. Metallic rod.....	J. B. Houston.....	463,073	Nov. 10	1313	340	57	815
Packing. Metallic rod.....	E. P. Monroe.....	444,195	Jan. 6	354	7-8	54	71
Packing. Metallic rod.....	E. P. Monroe.....	444,3-6	Jan. 6	629	163	54	124
Packing. Pipe.....	F. W. Cross.....	463,890	Nov. 24	2666	694	57	1089
Packing. Piston.....	W. Christie.....	447,007	Feb. 24	2445	608	54	1014
Packing. Piston.....	A. C. Ellithorpe.....	451,209	Apr. 28	2444	604	55	497
Packing. Piston-rod.....	F. McFadden.....	455,989	July 14	1104	290	56	218
Packing. Piston-rod.....	C. C. Jerome.....	454,740	June 23	2373	609 610	55	1623
Packing. Piston-rod.....	C. C. Jerome.....	464,711	Dec. 8	1095	271 272	57	1353
Packing. Piston-rod.....	S. D. Martin.....	453,493	June 2	501	129	55	1242
Packing. Piston-rod.....	G. W. Rogers.....	454,384	June 16	1804	471	55	1507
Packing-ring.....	C. Fromm.....	456,243	July 21	1493	396	56	302
Packing. Rod.....	C. C. Jerome.....	465,858	Dec. 29	2953	754	57	1737

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Packing. Rod	E. F. Peacock	446,364	Feb. 10	1412	347	54	792
Packing. Rod	T. E. Murray	444,055	Jan. 6	113	98	54	95
Packing. Rod	E. G. Shortt	447,281	Feb. 24	2900	730	54	1101
Packing. Rod	A. H. Twining	446,689	Feb. 17	1942	424	54	968
Packing. Rod	S. Udstad and R. Ryan	454,093	June 16	1374	338	55	1425
Packing. Rod	J. Walker	447,170	Feb. 24	2748	680	54	1070
Packing. Steam-joint	E. L. Perry	462,278	Nov. 3	90	23	57	558
Packing-strip	F. E. Watton	458,877	Sept. 1	525	127	56	1165
Packing. Stuffing-box	H. S. Ross	457,566	Aug. 11	1058	270	56	739
Packing. Stuffing-box	R. Walsh	454,551	June 23	2062	533	55	1565
Packing. Stuffing-box	R. Walsh	464,657	Dec. 8	1000	249	57	1336
Pad:							
See Blotting-pad.	Inking-pad.						
Collar-pad.	Moistening-pad.						
Copying-pad.	Riding-pad.						
Copying-book pad.	Stair-pad.						
Harness-pad.	Sweat-pad.						
Hoof-pad.	Truss-pad.						
Pad-machine	W. S. Finney	463,210	Nov. 17	1574	410	57	873
Pad-press	M. V. B. Bean	457,696	Aug. 11	1248	322	56	775
Pad-presses. Clinching-plate for	M. V. B. Bean	457,697	Aug. 11	1249	322	56	775
Paddle. Reciprocating boat	M. O. Ainslie	461,067	Oct. 13	805	206	57	162
Paddle. Vertical float	N. T. Edson	453,180	June 2	5	1, 2	55	1150
Paddle-wheel	C. E. Keith	454,652	June 23	2244	576	55	1596
Paddle-wheel. Feathering	F. E. and H. A. Pirring	464,520	Dec. 8	798	195	57	1296
Padlock	W. D. Doremus	451,110	Apr. 28	2263	561	55	465
Padlock	I. Goldfain	460,636	Oct. 6	167	41	57	35
Padlock	M. Jackson	451,156	Apr. 28	2345	582	55	480
Padlock	M. Jackson	464,326	Dec. 1	508	121	57	1230
Padlock	G. W. Lucas	441,449	Jan. 13	727	191	54	152
Padlock	G. W. Lucas	453,263	June 2	132	35	55	1173
Padlock	F. W. Mix	445,121	Jan. 20	1834	475	54	373
Padlock	C. A. Moore	459,499	Sept. 15	1502	376	56	1373
Padlock	J. S. Peacock	453,136	May 26	2739	691	55	1120
Padlock	J. S. Peacock	456,427	July 21	1799	476	56	359
Padlock	W. E. Sparks	456,345	July 21	1649	436	56	332
Padlock	W. E. Sparks	456,744	July 28	2325	613	56	468
Padlock	G. D. Spielman	461,134	Oct. 13	893	232	57	179
Padlock	S. P. Stein	457,678	Aug. 11	1223	314	56	770
Padlock	W. F. Troast and S. R. Slaymaker	465,897	Dec. 29	3026	774	57	1751
Padlock. Permutation	L. H. Ayres	451,356	Apr. 28	2669	661	55	542
Padlock. Permutation	E. R. Benefiel	465,315	Dec. 15	2082	532	57	1550
Padlock. Permutation	W. M. Brooke	465,450	Dec. 22	2301	591	57	1602
Page cord lock	H. Staeding	451,201	Apr. 28	2433	601	55	495
Paging-machine	S. K. White	449,304	Mar. 31	3281	831	54	1776
Pail and lunch-basket. Combined dinner	W. Poyner	450,527	Apr. 14	1334	328	55	263
Pail and wringer. Mop	E. A. Wood	446,909	Feb. 24	2303	573	54	988
Pail. Bedroom	A. Bodenstein	461,255	Oct. 13	1102	281	57	220
Pail cover. Sap	T. Stowe	462,514	Nov. 3	458	112	57	638
Pail. Dinner	H. B. Adams	444,215	Jan. 6	380	95	54	76
Pail. Dinner	J. H. Benney	453,957	June 9	1177	307	55	1381
Pail. Dinner	R. Dickinson, Sr.	460,432	Sept. 29	2953	738	56	1663
Pail. Dinner	G. P. Mitchell	445,961	Feb. 3	727	177	54	655
Pail. Dinner	W. Powell	453,659	June 9	758	196	55	1299
Pail making machine	H. J. Medbery	450,590	Apr. 14	1415	349	55	279
Pails. Suspension device for	F. M. Locke and F. E. Cobb	451,655	June 23	2249	577	55	1597
Pails. Winder for making fiber	E. Hubbard	452,707	May 19	2036	510	55	976
Paint	N. J. Mitchell	444,842	Jan. 20	1358	.....	54	282
Paint	T. M. Sanderlin	455,118	June 30	3063	.....	55	1760
Paint	W. H. Shearer	464,336	Dec. 1	519	.....	57	1243
Paint	G. Walker	451,297	Apr. 28	2588	.....	55	526
Paint. Anti-fouling	N. B. Denny	444,665	Jan. 13	1066	.....	54	218
Paint-bucket	R. P. Ford	459,329	Sept. 8	1226	300	56	1312
Paint-burner	G. H. idel	459,288	Sept. 8	1113	283	56	1299
Paint-can	C. F. and C. F. Stites	446,681	July 28	2206	585	56	447
Paint-cans, &c. Gate for	J. M. Mungriven	456,290	July 21	1571	414	56	317
Paint-distributor	G. H. Huttenlocher and W. Ullmer	444,440	Jan. 13	718	188	54	150
Paint. Fire-proof	I. L. Merrell	446,922	Feb. 24	2319	.....	54	991
Paint from residuum of vegetable oils	G. W. Scollay	446,018	Feb. 10	826	.....	54	681
Paint, grease, &c. Composition for the removal of	Y. D. Sisler	453,840	June 9	1033	.....	57	1352
Paint indelible. Fluid for rendering oil	R. W. Surby	459,691	Sept. 15	1418	.....	56	1433
Paint. Making	G. W. Scollay	446,019	Feb. 10	828	.....	54	682
Paint. Marine	J. N. Longden	446,818	Feb. 17	2124	.....	54	947
Paint-mill	H. Goosen, E. J. Haly, and J. W. Kent	448,226	Mar. 17	1558	398	54	1433
Paint-pails. Brush-scraper attachment for	D. F. Brown	445,876	Feb. 3	597	146	54	628
Paint-pot	R. S. and T. F. Reilley	451,171	Apr. 28	2366	588	55	485
Paint. Roof	J. B. Zook	447,997	Mar. 10	1197	.....	54	1352
Paint, varnish, japan, &c	F. Salathé	452,761	May 19	2132	.....	55	985
Paint. Vulcanized	L. W. Osborn	456,659	July 24	2173	.....	56	440
Painter's overshoe	A. S. Olson	454,375	June 16	1794	468	55	1505
Painter's jack	F. Pepin	444,280	Jan. 6	473	120	54	94
Painting	L. W. Osborn	450,087	Apr. 7	647	.....	55	127
Painting in oil colors	C. C. Schmitzer	448,267	Mar. 17	1625	.....	54	1446
Paintings and relief pictures. Making combined smooth surface	O. J. R. Berner	449,727	Apr. 7	130	33	55	27
Paintings. Reproducing oil	L. Mayar	450,702	Apr. 21	1643	.....	55	336
Palmetto fiber. Extracting	C. B. Warrand	450,120	Apr. 7	694	.....	55	136
Palmetto. Manufacturing imitation horse-hair from	C. B. Warrand	450,119	Apr. 7	693	.....	55	136

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Pan:							
See Ash pan.	Evaporating pan.						
Bake pan.	Grinding pan.						
Baking pan.	Grinding and amalgam-						
Baking or roasting	ating pan.						
pan.	Locomotive ash pan.						
Bed pan.	Salt pan.						
Bread pan.	Soot pan.						
Dust pan.	Vacuum pan.						
Pan for baking cakes, puddings &c	W. S. Canaday	465,425	Dec. 15	2262	581	57	1584
Pan lid. Frying or other	C. Hartley	444,702	Jan. 13	1124	290	54	230
Pan lifter and turner	J. Ericson	446,114	Feb. 10	984	242	54	711
Pan lifter. Hot.	M. B. Penfield	444,504	Jan. 13	831	216	54	173
Panels or the like to metallic surfaces. Attaching	J. A. Kline	465,782	Dec. 22	2228	725	57	1703
Panorama-carrousel	J. Krumbacher	455,546	July 7	400	104	56	78
Panoramic device	E. W. Keeler	446,524	Feb. 17	1679	410	54	858
Pantograph	G. R. Elliott	455,185	June 30	3178	805	55	1782
Pantaloon hanger and stretcher	C. A. Evans	457,189	Aug. 4	397	103	56	603
Pantaloon hanger and stretcher	C. A. Evans	457,190	Aug. 4	398	104	56	608
Pantaloon supporter	C. P. Coggeshall	444,176	Jan. 6	325	79	54	66
Pantry. Portable	R. Sabin	448,372	Mar. 17	1814	457	54	1482
Paper. Albumenized	A. Bott.	463,328	Nov. 17	1759	57	908	
Paper and producing the same Illuminated em-	P. Hake	449,675	Apr. 7	44	11	55	10
bossed							
Paper articles. Apparatus for delivering	J. West	448,285	Mar. 17	1672	424	54	1455
Paper as the paper is wound thereon. Apparatus	J. Crotty and R. D. Bacot	463,732	Nov. 24	2422	635	57	1043
for weighing rolls of							
Paper. Automatic machine for inserting and looping	W. M. Hunt	457,351	Aug. 11	719	183	56	672
wire in packages of					184		
Paper bag	C. W. Fishel and F. E. Sweet	446,771	Feb. 17	2050	511	54	931
Paper bag	F. O. Paige	448,142	Mar. 10	1406	360	54	1305
Paper bag	W. D. Smith	444,527	Jan. 13	862	224	54	180
Paper bag holder	O. M. Stiehl	461,945	Oct. 27	2290	567	57	462
Paper bag machine	E. E. Claussen	444,727	Jan. 13	1169	300	54	238
Paper bag machine	W. H. Cline	458,559	Sept. 1	17	3	56	1068
Paper-bag machine	W. Liddell	455,407	July 7	175	46, 47	56	37
Paper bag machine	W. A. Lorenz	444,728	Jan. 13	1171	301	54	238
Paper bag machine	W. A. Lorenz and E. E. Claussen	444,729	Jan. 13	1177	302	54	239
Paper bag machine	W. A. Lorenz and E. E. Claussen	459,445	Sept. 15	1432	356	56	1358
Paper-bag machine	F. W. B. McCreedy	458,914	Sept. 1	572	139	56	1175
Paper-bag machine	W. H. Patterson	446,839	Feb. 17	2158	536	54	954
Paper bag machine	W. B. Purvis	460,093	Sept. 22	2439	537	56	1558
Paper-bag machine	A. L. Stevens	461,287	Oct. 13	1148	292	57	229
Paper-bag machinery	M. Schenck	465,211	Dec. 15	1914	293	57	1518
Paper bags. Apparatus for making	W. H. Patterson	450,710	Apr. 21	1651	426	55	338
Paper bags. Machine for making	J. West	461,599	Oct. 20	1718	397	57	344
Paper bags. Making	E. Stanley	458,409	Aug. 25	2431	420	56	1015
Paper bars. Machine for the manufacture of	E. Bockmühl and W. Karthaus	461,732	Oct. 20	1931	421	57	383
Paper box	O. H. Hicks	458,533	Aug. 25	2623	478	57	383
Paper box	C. H. Keith	462,713	Nov. 10	781	479	57	383
Paper box. Angular	D. S. Clark	452,164	May 12	1170	295	55	802
Paper box. Angular	D. S. Clark	459,542	Sept. 15	1576	296	56	1387
Paper box. Angular	D. S. Clark	460,817	Oct. 6	441	394	57	88
Paper box. Angular	D. S. Clark and J. W. Osborne	459,543	Sept. 15	1577	411	56	1387
Paper box. Collapsible	F. V. Bowman	448,813	Mar. 24	2520	395	56	1387
Paper-box-covering machine	J. A. Livers	463,196	Nov. 17	1554	631	54	1623
Paper-box-covering machine	M. F. Wilson	450,275	Apr. 14	941	405	57	869
Paper box. Knockdown	E. M. Scott	448,824	Mar. 24	2533	233	55	187
Paper box. Knockdown or folding	P. Lindemeyer	460,293	Sept. 29	2752	635	54	1626
Paper-box machine	C. F. Anderson	464,628	Dec. 8	951	6	56	1626
Paper-box machine	A. L. Munson	448,158	Mar. 10	1429	234	57	1326
Paper-box machine	S. S. Putt and J. Neff	452,317	May 12	1410	365	54	1399
Paper-box machines. Wetter for	E. H. Taylor	453,987	June 9	1223	366	55	848
Paper-box-making machine	J. E. Hinds	454,908	June 30	2661	350	55	1390
Paper box. Re-enforced	S. T. Achor	450,211	Apr. 14	832	681	55	1682
Paper box. Sector shaped	R. P. Brown and E. L. Bailey	454,637	June 23	2223	682	55	1682
Paper-box-setting up machine	G. W. Glazier	456,485	July 21	1824	209	55	168
Paper boxes. Machine for staying the angles of	D. A. Flavell	465,845	Dec. 29	2932	572	55	1592
Paper building material	S. H. Hamilton	449,737	Apr. 7	146	498	56	376
Paper building material	S. H. Hamilton	449,738	Apr. 7	147	499	56	376
Paper-calendering rolls	A. S. Bacon	454,322	June 16	1708	750	55	1491
Paper-clamp	J. B. McGirr	448,822	Mar. 24	2529	751	54	1625
Paper-coating apparatus	J. Kayser	445,955	Feb. 3	715	174	54	652
Paper. Coin-operated machine for furnishing toilet.	B. B. Babbitt	456,788	July 28	2389	175	56	479
Paper. Coin-operated machine for furnishing toilet.	F. Meisel	459,252	Sept. 8	1106	629	56	1287
Paper. Composition for treating articles made from	L. Grote	445,111	Jan. 20	1821	630	54	371

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Paper-cutter	A. Malm	446,359	Feb. 10	1407	{ 344 345 }	54	791
Paper-cutter	H. G. Spraker	444,106	Jan. 6	198	48	54	41
Paper-cutter and book-mark. Combined	T. H. Perry	445,196	Jan. 27	1965	508	54	408
Paper-cutter. Combination	C. E. Willis	451,217	Apr. 28	2452	606	55	499
Paper-cutter, pencil-sharpener, and eraser. Combined	T. H. Bell	459,191	Sept. 8	1016	248	56	1369
Paper-cutting machine	L. Carver	445,923	Feb. 3	662	162	54	642
Paper-cutting machine	D. S. Clark	462,469	Nov. 3	339	98	57	626
Paper-cutting machine	C. Cranston	461,950	Oct. 27	2296	569	57	463
Paper-cutting machine	C. R. Ely	449,525	Mar. 31	3669	922	54	1848
Paper-cutting machine	A. Malm	451,333	Apr. 28	2638	652	55	536
Paper-cutting machine	B. J. Pavver and T. Burns	465,435	Dec. 15	2275	584	57	1587
Paper-cutting machine	C. Seybold	464,202	Dec. 1	307	75	57	1192
Paper-cutting machine. Guillotine	L. U. Gill	450,147	Apr. 14	736	{ 185 186 }	55	150
Paper-cutting machines. Slitter for	D. L. McCorkindale	453,655	June 9	753	{ 194 195 }	55	1298
Paper dampening and stretching machine	W. Nacken	444,222	Jan. 6	394	98, 99	54	78
Paper, &c. Device for color-stripping	C. Schneider	454,773	June 23	2419	621	55	1632
Paper. Distinctive	J. Macdonough	447,336	Mar. 3	91	25	54	1135
Paper distributor. Toilet	F. W. Scutt	464,321	Dec. 1	498	119	57	1229
Paper-fastener	C. Grunzweig	451,710	May 5	405	99	55	656
Paper feeding and separating machine	L. F. Pales	447,766	Mar. 10	797	198	54	1276
Paper-feeding apparatus	F. K. Crane and H. Bradshaw	458,945	Sept. 1	616	152	56	1185
Paper-feeding machines. Automatic stop mechanism for	L. Harlow	446,678	Feb. 17	1910	475	54	902
Paper-feeding mechanism	R. Burnet	463,620	Nov. 24	2243	591	57	1011
Paper fixture. Toilet	C. F. Grosvenor and H. E. Holmes	460,775	Oct. 6	381	93, 94	57	74
Paper fixture. Toilet	S. Wheeler	445,436	Jan. 27	2311	600	54	477
Paper fixture. Toilet	S. Wheeler	447,419	Mar. 3	239	61	54	1162
Paper fixture. Toilet	S. Wheeler	454,317	June 16	1698	444	55	1489
Paper-folding	A. P. Warner	451,539	May 5	142	36	55	606
Paper-folding machine	T. C. Dexter	461,422	Oct. 20	1379	349	57	281
Paper-folding machine	J. H. Stonemetz	465,633	Dec. 22	2611	{ 664 665 }	57	1659
Paper-folding machine	J. H. Stonemetz	465,635	Dec. 22	2620	667	57	1661
Paper-folding machine	J. H. Stonemetz	465,636	Dec. 22	2622	668	57	1662
Paper. Frame for coating aristotype	E. A. Gilbert	463,037	Nov. 10	1289	334	57	810
Paper-hanging machine	W. C. Flöring and D. Eisele	458,259	Aug. 25	2168	531	56	966
Paper-hanging machine	A. H. Lohlker	453,174	May 26	2835	{ 710 711 }	55	1135
Paper holder and cutter. Roll	J. M. Bolton	448,113	Mar. 10	1362	349	54	1385
Paper holder and cutter. Roll	J. H. Cornelison	445,975	Feb. 10	751	184	54	669
Paper holder and cutter. Roll	J. H. Cornelison	451,809	May 5	534	137	55	684
Paper holder and cutter. Roll	J. H. Cornelison	452,690	May 19	2010	503	55	971
Paper holder and cutter. Roll	L. Ehrlich	446,332	Feb. 10	1373	334	54	784
Paper holder and cutter. Roll	L. Ehrlich	450,061	Apr. 7	607	152	55	117
Paper holder and cutter. Roll	L. Ehrlich	465,523	Dec. 22	2431	620	57	1627
Paper holder and cutter. Roll	E. C. Ford and G. T. Jacobs	448,138	Mar. 10	1402	358	54	1394
Paper holder and cutter. Roll	S. M. Friede	445,987	Feb. 10	784	191	54	675
Paper holder and cutter. Roll	W. G. Haas	449,158	Mar. 31	3045	770	54	1733
Paper holder and cutter. Roll	J. M. Keep	464,972	Dec. 15	1492	375	57	1440
Paper holder and cutter. Roll	E. S. Knight	445,116	Jan. 20	1828	473	54	372
Paper holder and cutter. Roll	F. Krickhaus	450,943	Apr. 21	2000	492	55	404
Paper holder and cutter. Roll	A. Loft	450,168	Apr. 14	766	194	55	155
Paper holder and cutter. Roll	E. C. Phillips	456,964	Aug. 4	66	16	56	545
Paper holder and cutter. Roll	C. K. Pickles	445,079	Jan. 20	1771	456	54	361
Paper holder and cutter. Roll	C. K. Pickles	445,080	Jan. 20	1772	457	54	362
Paper holder and cutter. Roll	C. K. Pickles	446,010	Feb. 10	818	197	54	679
Paper holder and cutter. Roll	C. K. Pickles	446,011	Feb. 10	819	198	54	680
Paper holder and cutter. Roll	C. K. Pickles	446,012	Feb. 10	819	198	54	680
Paper holder and cutter. Roll	C. K. Pickles	446,366	Feb. 10	1415	348	54	793
Paper holder and cutter. Roll	C. K. Pickles	450,033	Apr. 7	572	142	55	111
Paper holder and cutter. Roll	C. K. Pickles and G. N. Hinchman, Jr.	450,916	Apr. 21	1968	482	55	398
Paper holder and cutter. Roll	G. Rein	449,761	Apr. 7	182	45	55	37
Paper holder and cutter. Roll	G. Rein	449,762	Apr. 7	183	45	55	37
Paper holder and cutter. Roll	G. Rein	450,036	Apr. 7	576	143	55	111
Paper holder and cutter. Roll	G. Rein	450,918	Apr. 21	1970	483	55	398
Paper holder and cutter. Roll	A. Q. Ross	452,719	May 19	2063	519	55	981
Paper holder and cutter. Roll	A. Q. Ross	452,720	May 19	2064	519	55	981
Paper holder and cutter. Roll	J. B. Seymour, Jr.	451,623	May 5	278	67	55	631
Paper holder and cutter. Roll	E. E. Stanger	449,501	Mar. 31	3636	915	54	1842
Paper holder and cutter. Roll	W. H. Stewart and W. S. Livengood	449,784	Apr. 7	218	55	55	44
Paper holder and cutter. Roll	M. S. Tracy	451,685	May 5	373	91, 92	55	650
Paper holder and cutter. Roll	W. Van Horn	448,097	Mar. 10	1341	343	54	1381
Paper-holder and cutting and printing device. Combined	S. K. Gmbel	456,330	July 21	1626	430	56	328
Paper-holder. Revolving	W. J. Hills	458,577	Sept. 1	46	10	56	1074
Paper holder. Roll	W. Gardner	462,310	Nov. 3	150	38	57	579
Paper holder. Toilet	E. Morgan	464,377	Dec. 1	578	142	57	1244
Paper holder. Toilet	E. Morgan	464,378	Dec. 1	579	142	57	1244
Paper in a suspended position. Bracket for holding	F. Van Benthuyssen	446,486	Feb. 17	1619	397	54	847
Paper-jogger	R. A. Hart	446,447	Feb. 17	1561	384	54	835
Paper, leather, and other plastic materials. Die for ornamenting	W. Schumacher	445,863	Feb. 3	580	141	54	625
Paper. Letter	A. R. Baker	450,130	Apr. 14	716	180	55	146
Paper. Machine for cutting sheets from webs of	J. A. Dear	452,025	May 12	902	231	55	757
Paper. Machine for folding, pasting, trimming, and covering sheets of	C. Chambers, Jr., W. Mendham, and } T. C. Damborg. }	445,498	Jan. 27	2397	{ 623 624 625 626 627 }	54	493
Paper, &c. Machine for folding strips of	J. T. Earle, J. J. Good, and H. Redmon	465,522	Dec. 22	2426	619	57	1626
Paper. Machine for making transfer graining	C. Dahm	463,442	Nov. 17	1947	508	57	945

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Paper, &c. Machine for sitting and winding	E. J. and C. E. Pope	451,278	Apr. 28	2561	631	55	521
Paper. Machine for splitting and rewinding roll....	J. C. Ford	466,228	Dec. 29	3562	{ 912 913 }	57	1854
Paper. Machine for the manufacture of lace	B. Karfiol	461,758	Oct. 20	1976	489	57	392
Paper. Machine for waterproofing or coating	J. J. Newman	453,090	May 26	2668	{ 672 673 }	55	1107
Paper-machine register	H. O. and S. Ertel	461,330	Oct. 13	1214	309	57	243
Paper-machines. Dandy-roll for	A. J. Tucker	464,467	Dec. 1	704	172	57	1269
Paper-machines. Stuff-regulating apparatus for	W. C. Edwards	445,985	Feb. 10	777	190	54	674
Paper-making. Cylinder or drum for	J. Macnarey	455,222	June 30	3233	821	55	1793
Paper-making machine	C. Eichhorn	464,608	Dec. 8	918	226	57	1321
Paper-making machine	H. Hoeborn	445,003	Jan. 20	1657	424	54	340
Paper-making machine	T. H. Latimer and F. A. Fletcher	448,441	Mar. 17	1927	48	54	1503
Paper-making machine	F. M. Van Wormer	459,351	Sept. 8	1263	311	56	1319
Paper-making machines. Consecutive numbering attachment for	A. Chaix	456,094	July 14	1247	{ 328 329 }	56	246
Paper-making machines. Register for	C. J. Richardson	456,061	July 14	1207	318	56	238
Paper-making machinery. Cylinder-vat for	J. Watt	464,537	Dec. 8	820	202	57	1300
Paper-manifolding-tablet. Roll	H. Dixon and E. Leoty	460,201	Sept. 29	2610	651	56	1597
Paper-mills. Pulp-screen for	P. R. Thom	444,862	Jan. 20	1425	{ 370 371 }	54	294
Paper pail	U. Hull and W. W. McEwan	454,799	June 23	2462	632	55	1639
Paper pails. Machine for manufacturing	U. Hull and W. W. McEwan	455,718	July 7	681	179	56	131
Paper pails. Making	U. Hull and W. W. McEwan	445,143	Jan. 20	1874	485	54	381
Paper. Pasting or coating	M. F. Wilson	453,394	June 2	328	85	55	1209
Paper pipes. Machine for making	J. Peters	465,414	Dec. 15	2247	{ 576 577 }	57	1581
Paper-pulp. Apparatus for bleaching	J. Jordan	452,074	May 12	1009	254	55	773
Paper-pulp boiler	S. R. Wagg	446,041	Feb. 10	871	{ 211 212 }	54	689
Paper pulp. Machine for straining	H. J. Rogers	464,725	Dec. 8	1118	277	57	1357
Paper-pulp. Magnetic separator for	C. H. Atkins	454,555	June 23	2068	535	55	1566
Paper-retaining device	L. R. Goodwin	459,154	Sept. 8	961	233	56	1259
Paper-roll holder, cutter, and printer	J. S. Aydelott	453,211	Aug. 25	2086	540	56	950
Paper roll. Wrapping and toilet	S. Wheeler	454,316	June 16	1697	443	55	1489
Paper roll. Wrapping or toilet	S. Wheeler	459,516	Sept. 15	1532	383	56	1378
Paper rolls. Contracting core for	E. W. Barton	459,265	Sept. 8	1125	274	56	1292
Paper rolls. Toilet	S. Wheeler	465,588	Dec. 22	2543	648	57	1647
Paper sack	C. H. Vickery	444,029	Jan. 6	72	19	54	17
Paper shells. Machine for making	G. B. Farrington	454,113	June 16	1397	{ 365 366 }	55	1430
Paper. Sizing	W. J. Menzies	452,143	May 12	1131	.....	55	794
Paper splitting and rewinding machine	G. E. Inman and J. Jacques	465,575	Dec. 22	2520	642	57	1643
Paper splitting and folding machine	J. L. Cox	451,459	May 5	19	5	55	582
Paper-stock. Digester for treating	J. MacCormack and H. L. Van Zile	464,199	Dec. 1	302	74	57	1191
Paper-stock. Making	J. D. Tompkins	458,135	Aug. 18	1962	509	56	921
Paper strips. Machine for making tubing from	H. Denney	444,950	Jan. 20	1575	{ 404 405 }	54	323
Paper, thread, yarn, &c. Machine for testing	A. Wendler	464,766	Dec. 8	1179	293	57	1368
Paper. Toilet or wrapping	O. H. Hicks	453,003	May 26	2523	639	55	1078
Paper-trimming machinery	J. S. Edgcomb and G. E. Sanborn	465,656	Dec. 22	2648	{ 674 675 }	57	1667
Paper-tube-winding machine	M. C. Stone	454,145	June 16	1446	{ 378 379 }	55	1439
Paper tubes. Machine for rolling	J. Liddell	452,141	May 12	1126	286	55	794
Paper tubing. Machine for making	H. Denney	445,135	Jan. 20	1855	{ 480 481 }	54	378
Paper tubing. Machine for making	E. T. Greenfield	461,676	Oct. 20	1844	456	57	367
Paper tubing. Making	H. Denney	446,663	Feb. 17	1882	467	54	897
Paper. Water-finishing	G. La Monte	445,898	Feb. 3	627	154	54	635
Paper. Waterproofed parchment	E. Andrews	458,240	Sept. 1	454	.....	56	1152
Paper-weight	L. B. Martin	444,647	Jan. 13	1040	270	54	214
Paper-weight and envelope-cutter. Combined	F. O. Paige	460,756	Oct. 6	355	87	57	70
Parasol	R. F. Painter	451,570	May 5	188	46	55	615
Parcel-carrier	A. Edgar	460,772	Oct. 6	378	93	57	74
Parcel-carrier	C. Starr and P. Krazeise	445,735	Feb. 3	361	93	54	583
Parcel-carrier	J. P. Stepp	451,627	May 5	282	68	55	632
Parcel-carrying apparatus	J. S. Richardson	451,602	May 5	236	56	55	624
Parcel-delivery apparatus	O. Gieseke	460,203	Sept. 29	2613	652	56	1598
Parcel-strap	F. H. Loveless	448,657	Mar. 24	2276	570	54	1576
Parchmentized fiber. Machine for making	C. W. Robinson	459,258	Sept. 8	1113	272	56	1289
Parchmentized fiber. Manufacture of rods of	R. P. Frist. (Reissue)	11,173	June 30	3370	849	55	1820
Paper and corer. Fruit	W. A. C. Oaks	449,050	Mar. 24	2876	731	54	1693
Paper. Potato	J. Ward	457,804	Aug. 18	1435	372	56	820
Paring machine. Fruit	H. Cottrell	453,759	June 9	917	238	55	1329
Paris-green. Making	J. C. Jessup	451,487	May 5	66	.....	55	592
Parquetry	G. R. McKenzie	457,788	Aug. 18	1406	364	56	815
Partition. Fire-proof	C. W. White	449,019	Mar. 24	2429	717	54	1683
Partition. Sliding	J. Hayes	447,610	Mar. 3	552	{ 136 137 }	54	1221
Partitioned pipe	J. J. Hogan	459,908	Sept. 22	2174	546	56	1507
Passenger-registers. Gato for use in connection with	A. Gajardo	460,719	Oct. 6	302	73, 74	57	60
Paste. Communitated compound	J. W. Schoonmaker	451,077	Apr. 28	2217	548	55	454
Paste-making machine	J. W. Meyer	457,616	Aug. 11	1135	{ 289 290 }	56	753
Paste-pot	H. Denney	449,670	Apr. 7	37	9	55	9
Pasteboard articles. Manufacture of	T. Remus	456,597	July 28	2064	546	56	418
Pasteboard-box machine	E. Saltzkorn and L. Nicolai	455,767	July 14	764	{ 201 202 }	56	156
Pasteboard boxes. Machine for connecting the corners of	E. Saltzkorn and L. Nicolai	456,639	July 28	2139	566	56	433
Pasteboard. Machine for beveling or mitering the edges of	E. Saltzkorn	465,540	Dec. 22	2465	628	57	1632
Pasteboard, &c. Machine for cutting	E. Saltzkorn and L. Nicolai	454,968	June 30	2783	710	55	1705

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Paster. Wrapper.....	D. W. Collins.....	459,269	Sept. 8	1131	277	56	1293
Pasting device.....	G. P. Salisbury.....	445,940	Feb. 3	695	169	54	649
Pasting-machine.....	G. W. Leiman.....	459,295	Sept. 8	1173	285	56	1301
Pattern: See Adjustable pattern. Sleeve-pattern. Commutator-pattern. Trousers-pattern. Name-plate pattern. Vest and shirt pattern. Shoe-pattern.							
Pattern.....	D. S. Paul.....	445,859	Feb. 3	574	140	54	624
Pattern for tubular articles.....	S. J. Adams.....	455,142	June 30	3099	788	55	1767
Pattern-marking machine.....	I. A. and B. Schaeffer.....	462,331	Nov. 3	177	45	57	584
Pattern-plate.....	J. M. Harrison.....	463,603	Nov. 17	2209	582	57	995
Patterns for garments. Cutting.....	C. A. Amelang.....	460,111	Dec. 29	3378	863	57	1819
Pavement.....	S. B. Jerome.....	445,114	Jan. 20	1825	472	54	371
Pavement. Concrete.....	P. M. Bruner.....	450,054	Apr. 7	598	149	55	115
Pavement or floor light.....	J. C. French.....	445,311	Jan. 27	2134	551	54	442
Pavement. Street.....	J. Lynch.....	448,658	Mar. 24	2277	571	54	1576
Pavement. Street.....	W. S. Wilkinson.....	465,650	Dec. 22	2636	673	57	1665
Pavements. Machine for dressing surfaces of.....	R. H. Love.....	462,264	Nov. 3	70	17	57	565
Paving-block.....	J. P. Hazeltin.....	449,739	Apr. 7	147	36	55	30
Paving-block.....	S. E. Hurlbut.....	456,378	July 21	1715	454	56	344
Paving-block. Composition.....	J. H. Drake.....	451,466	May 5	33	8	55	585
Paving-blocks. Making.....	J. A. Jones.....	455,213	June 30	3221		55	1791
Paving machine. Power street.....	F. A. Huntington.....	452,184	May 12	1201	304	55	808
Paving plant. Portable.....	S. Whinery.....	451,989	May 12	847	{ 216 217 }	{ 55 55 }	747
Paving, roofing, and building purposes. Compound for.....	H. F. Williams.....	446,654	Feb. 17	1872		54	896
Pawl-and-ratchet mechanism.....	T. Johnston.....	464,938	Dec. 8	1414	357	57	1414
Pawl-and-ratchet mechanism.....	J. M. W. Long.....	454,440	June 16	1895	494	55	1525
Pawl-and-ratchet mechanism.....	J. V. Rowlett.....	466,107	Dec. 29	3375	862	57	1818
Pea-huller.....	H. B. Babbitt.....	450,051	Apr. 7	593	147	55	114
Pea-sheller.....	E. C. Moulton.....	457,538	Aug. 11	1011	259	56	729
Pea-shelling machine.....	G. H. Olney and J. W. Harbin.....	466,021	Dec. 29	3249	827	57	1793
Peanut-picking machine.....	W. Watson.....	445,664	Feb. 3	238	64, 65	54	558
Peanuts from the vine. Device for picking or stripping.....	J. T. Stewart.....	460,667	Oct. 6	209	54	57	43
Peat fiber. Apparatus for classifying and finishing.....	G. H. Béraud.....	444,199	Jan. 6	360	89, 90	54	72
Peat fuel. Apparatus for the manufacture of.....	A. A. Dickson.....	451,462	May 5	25	6, 7	55	583
Peat-machine.....	A. A. Dickson.....	451,463	May 5	26	7	55	584
Peat to fuel. Machine for reducing crude.....	A. A. Dickson.....	451,464	May 5	28	7, 8	55	584
Pegging-jack.....	G. Dorwart.....	461,328	Oct. 13	1209	308	57	242
Pegging-jack.....	J. J. Winkle.....	446,312	Feb. 10	1342	327	54	778
Pegging-jack.....	E. Woodward.....	462,937	Nov. 10	1153	299	57	782
Pen.....	W. H. Bristol.....	459,830	Sept. 22	2044	513	56	1483
Pen attachment. Writing.....	D. Lubin.....	454,921	June 16	1559	410	55	1461
Pen cleaner. Ruling.....	F. W. Davenport.....	465,521	Dec. 22	2425	619	57	1626
Pen. Drawing.....	C. T. Finlayson.....	450,227	Apr. 14	862	216	55	173
Pen. Drawing.....	G. Mayer.....	448,450	Mar. 17	1940	469	54	1506
Pen-extractor.....	W. M. Morton.....	459,788	Sept. 22	1971	497	56	1468
Pen-extractor.....	E. C. Pfeiffer.....	454,064	June 16	1330	348	55	1418
Pen filler. Fountain.....	F. C. Brown.....	446,202	Feb. 10	1143	280	54	738
Pen filler. Fountain.....	W. Rodiger.....	463,215	Nov. 17	1582	412	57	874
Pen. Fountain.....	L. Bernhard.....	444,985	Jan. 20	1632	419	54	334
Pen. Fountain.....	G. A. Biedermann.....	453,608	June 9	678	176	55	1284
Pen. Fountain.....	H. M. Cronkhite.....	448,939	Mar. 24	2710	684	54	1660
Pen. Fountain.....	G. H. Jones.....	445,317	Jan. 27	2139	553	54	443
Pen. Fountain.....	M. W. Moore.....	448,885	Mar. 24	2633	661	54	1644
Pen. Fountain.....	J. Oliphant.....	448,360	Mar. 17	1797	454	51	1479
Pen. Fountain.....	N. F. Palmer.....	445,600	Feb. 3	126	32	54	536
Pen. Fountain.....	G. S. Parker.....	455,023	June 30	2891	735	55	1727
Pen. Fountain.....	H. T. Reed.....	449,295	Mar. 31	3269	829	54	1774
Pen. Fountain.....	L. A. Shattuck.....	450,197	Apr. 14	807	204	55	163
Pen. Fountain.....	L. B. Woolfolk.....	457,470	Aug. 11	900	232	56	707
Pen. Fountain or stylographic.....	R. M. Tubbs.....	466,201	Dec. 29	3523	901	57	1846
Pen. Fountain ruling.....	W. H. Birkmire.....	445,944	Feb. 3	699	170	54	650
Pen. Hog.....	W. B. Wright.....	461,302	Oct. 13	1173	299	57	235
Pen-holder.....	P. J. Cairns.....	444,046	Jan. 6	100	25	54	23
Pen-holder.....	W. R. Hoffmann.....	452,013	May 12	883	226	55	754
Pen-holder.....	P. D. Horton.....	451,005	Apr. 21	2120	523	55	427
Pen-holder.....	F. J. Kaldeberg.....	446,646	Feb. 17	1861	462	54	894
Pen-holder.....	F. McIntyre.....	462,446	Nov. 3	360	89	57	619
Pen-holder.....	C. H. McKee.....	458,062	Aug. 18	1856	484	56	900
Pen-holder.....	L. L. W. McMurtry.....	445,622	Feb. 3	163	43	54	543
Pen-holder.....	T. Nance.....	447,197	Feb. 24	2794	691	54	1080
Pen-holder.....	G. H. Richardson.....	444,304	Jan. 6	507	132	54	101
Pen-holder.....	H. F. E. Schuster.....	448,083	Mar. 10	1323	329	54	1377
Pen-holder cover.....	W. H. Cook.....	462,625	Nov. 3	636	161	57	674
Pen-holder, pen-nib, extractor, and paper-knife. Combined.....	T. B. A. Chamberlain.....	448,933	Mar. 24	2699	681	54	1658
Pen-puller.....	I. W. Heysinger.....	445,673	Feb. 3	265	70	54	565
Pen-rack.....	L. H. Coleman.....	457,759	Aug. 11	1362	352	56	800
Pen. Ruling.....	H. H. Lovo.....	454,220	June 16	1558	410	55	1461
Pen. Self-feeding drawing.....	S. Ker.....	460,393	Sept. 29	2904	726	56	1654
Pen-wiper and paper-weight. Combined.....	H. K. Duke.....	458,156	Aug. 25	2000	518	56	935
Pencil.....	F. E. Blaisdell.....	461,911	Oct. 27	2234	552	57	450
Pencil.....	L. H. Sondheim.....	452,242	May 12	1293	323	55	826
Pencil and crayon holder.....	W. V. Climensen.....	444,974	Jan. 20	1613	413	54	331
Pencil and pencil-sharpening knife. Combined.....	R. H. Franklin.....	448,122	Mar. 10	1473	375	54	1408
Pencil and sponge holder. School.....	S. M. Ashby.....	463,434	Nov. 17	1938	506	57	943
Pencil-case.....	A. Jeffery.....	460,971	Oct. 13	671	173	57	138
Pencil-case.....	M. J. Worley.....	457,947	Aug. 18	1682	441	56	866
Pencil-cases, &c. Suspension device for.....	J. C. W. Jefferys and G. Dickman.....	447,879	Mar. 10	997	251	54	1313
Pencil-clasp.....	C. O. Biederman.....	448,405	Mar. 17	1869	470	54	1492

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's.	Vol.	Page.
Pencil. Ever-pointed.	J. S. Foley	465,057	Dec. 15	1657	422	57	1470
Pencil-forming machine. Slate.	D. R. Satterlee	459,655	Sept. 15	1769	445	56	1423
Pencil-grinder. Diamond-grooved.	A. O. Tannenberg	462,600	Nov. 3	598	147	57	666
Pencil-holder.	J. S. Shaw	445,478	Jan. 27	2371	617	54	488
Pencil holder. Pocket lead.	J. T. Davidson	463,786	Nov. 24	2491	650	57	1057
Pencil. Lead.	R. H. Franklin	449,040	Mar. 24	2862	727	54	1690
Pencil. Lead.	B. B. Goldsmith	447,310	Mar. 3	44	11	54	1125
Pencil. Lead.	A. Truscott	455,422	July 7	202	52	56	42
Pencil. Lead or crayon	H. R. Fuller	466,300	Dec. 29	3682	940	57	1876
Pencil. Litmus.	J. S. Tyree	458,244	Aug. 25	2145	526	56	962
Pencil or crayon	E. W. Perry, Jr.	452,890	May 26	2334	589	55	1042
Pencil-pointing machine	G. L. Bailey	456,283	July 21	1549	410	56	313
Pencil-sharpener	E. E. Blakeslee	456,531	July 21	1962	516	56	391
Pencil-sharpener	W. S. Boyd	449,812	Apr. 7	256	65	55	51
Pencil-sharpener	J. O. Brookbank	458,634	Sept. 1	170	39	56	1098
Pencil-sharpener	C. E. Carpenter. (Reissue)	11,195	Sept. 29	3152	788	56	1703
Pencil-sharpener	J. D. Egler	466,077	Dec. 29	3330	850	57	1810
Pencil-sharpener	J. I. Gordon and J. Bedell	444,431	Jan. 13	705	184	54	147
Pencil-sharpener	A. J. Hood	452,270	May 12	1332	332	55	834
Pencil-sharpener	A. F. A. King	447,431	Mar. 3	260	65	54	1166
Pencil-sharpener	H. J. Miller	460,753	Oct. 6	352	86	57	69
Pencil-sharpener	J. D. Mills	448,723	Mar. 24	2385	597	54	1593
Pencil-sharpener	J. D. Mills and G. C. McDermott	450,180	Sept. 8	1002	244 245	56	1266
Pencil-sharpener	B. Pickering	460,658	Oct. 6	197	50	57	41
Pencil-sharpener	C. H. Redman	453,418	June 2	437	112	55	1231
Pencil-sharpener	F. W. Sabel	448,339	Mar. 24	2557	641	54	1630
Pencil-sharpener	L. E. Tallman	450,433	Apr. 14	1201	293	55	236
Pencil-sharpener and point-protector	H. Baumgarten	454,623	June 23	2200	567	55	1558
Pencil sharpener. Slate.	E. R. Lovett	449,625	Mar. 31	3849	964	54	1881
Pencil sharpener. Slate.	E. R. Lovett	458,032	Aug. 18	1815	473	56	891
Pencil-sharpener machine	F. M. Livingston	445,677	Feb. 3	272	71	54	566
Pencil-tip	O. Mussen, Jr.	452,499	May 19	1716	431	55	913
Pencils. Manufacture of lead.	B. B. Goldsmith	463,039	Nov. 10	1293	57	57	911
Pencils. Means for attaching rubber tips to.	E. Faber	457,579	Aug. 11	1077	275	56	742
Pendent handle.	F. W. Smith	455,769	July 14	767	202	56	157
Pendulum-bob. Supplemental.	H. S. Prentiss	450,529	Apr. 14	1335	328	55	263
Pepsin	J. L. Webber	454,375	June 23	2101	55	55	1572
Pepsin. Preparing	J. L. Webber	449,839	Apr. 7	302	65	55	59
Perambulator	J. Martin	458,736	Sept. 1	285	70	56	1120
Percolator	H. S. Blackmore	466,152	Dec. 29	3452	883	57	1833
Perforator cushion. Check-	E. O. Abbott	450,691	Apr. 21	1624	390	55	333
Performing-platform for animals	H. Reiche	461,449	Oct. 20	1425	359	57	290
Perfume holder and tester	T. E. Greenwood	455,321	July 7	34	10	56	9
Perfumes. Sampling-case for	C. H. Sagar	454,772	June 23	2417	621	55	1631
Perfuming apparatus. Coin-operated	H. M. Wilson	446,639	Feb. 17	1848	458	54	891
Permutation-lock	J. Baum	446,657	Feb. 17	1875	465	54	896
Permutation-lock	W. H. Bechtel	457,885	Aug. 18	1574	409	56	846
Permutation-lock	J. H. Christie	460,559	Oct. 6	22	6	57	6
Permutation-lock	W. B. Folger	444,210	Jan. 6	373	93	54	75
Permutation-lock	H. Goodacre	451,153	Apr. 28	2339	581	55	479
Permutation-lock	M. L. Hall and W. H. Eldridge	453,238	June 2	92	24	55	1166
Permutation-lock	M. L. Hall and W. H. Eldridge	465,131	Dec. 15	1796	454	57	1495
Permutation-lock	E. L. Miller and J. J. Roshong	463,685	Nov. 24	2347	615	57	1029
Permutation-lock	J. B. Miller	446,071	Feb. 10	919	224	54	698
Permutation-lock	J. B. Miller	447,575	Mar. 3	500	123	54	1211
Permutation-lock	C. E. Peck	463,269	Nov. 17	1673	437	57	893
Permutation-lock	T. A. Phillips and J. J. Greenhoe	447,621	Mar. 3	572	141	54	1225
Permutation-lock	W. V. Pursell	457,959	Aug. 18	1702	445	56	870
Permutation-lock	D. M. Quarles, Jr.	417,519	Mar. 3	414	101 102	54	1196
Permutation-lock	W. P. Shattuck	451,529	May 5	125	32	55	603
Perspiration-powder	S. G. Hull	446,778	Feb. 17	2057	54	54	933
Pessary	E. W. Wagner	444,513	Jan. 13	842	219	54	176
Pessary. Electrical	W. N. Sherman	454,573	June 23	2039	542	55	1571
Pessary. Rectal	R. W. Coffe	453,880	June 9	1076	281	55	1360
Petroleum and analogous oils. Refining.	C. C. Mengel, Sr.	465,703	Dec. 22	2711	57	57	1680
Petroleum-burner.	L. Goddu	465,817	Dec. 22	2878	737	57	1714
Petroleum-burner.	H. Lindley	463,905	Nov. 24	2684	699	87	1093
Petroleum. Device for burning crude	L. C. Suchl	446,796	Feb. 17	2088	520	54	939
Petroleum distillates. Purifying	T. J. Gordon	451,724	May 5	431	55	55	660
Petroleum. Process of and apparatus for refining and purifying	H. Frasch	448,480	Mar. 17	1986	498	54	1514
Petroleum. Refining crude.	C. C. Mengel, Sr.	452,578	May 19	1837	461	55	936
Pew. Church.	S. Springsteen	455,417	July 7	194	50	56	40
Phenylethylmethylpyrazolone. Making	G. Ebert	464,861	Dec. 8	1310	57	57	1395
Phonogram-blank carrier	T. A. Edison	460,123	Sept. 29	2496	622	56	1575
Phonogram-blanks. Device for turning off	T. A. Edison	448,780	Mar. 24	2475	619	54	1615
Phonogram-blanks. Smoothing-tool for	T. A. Edison	457,344	Aug. 11	706	181	56	670
Phonograph	W. Bruening	462,687	Nov. 10	745	193 194	57	708
Phonograph	T. A. Edison	453,741	June 9	885	230	55	1324
Phonograph	T. A. Edison	451,942	June 30	2743	699	55	1697
Phonograph	T. A. Edison	456,302	July 21	1585	418	56	320
Phonograph	T. A. Edison	465,972	Dec. 29	3143	806	57	1773
Phonograph	G. H. Herrington	464,476	Dec. 1	718	175	57	1271
Phonograph	H. T. Holtz	463,989	Nov. 24	2822	732	57	1119
Phonograph	E. Oxley	458,916	Sept. 1	574	139	56	1175
Phonograph-doll	T. A. Edison	456,301	July 21	1583	418	56	319
Phonograph erasing attachment	P. T. Dodge	449,349	Mar. 31	3376	851	54	1791
Phonograph-recorder	T. A. Edison	450,740	Apr. 21	1685	408	55	345
Phonograph recorder or reproducer	T. A. Edison	454,941	June 30	2742	699	55	1697
Phonograph-tablet	L. W. Heyinger	460,338	Sept. 29	2824	703	56	1639
Phonographs. Governor for	H. D. Goodwin	452,976	May 26	2481	627	55	107

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Phonographs. Reproducer for	W. McMahon	454,947	June 30	2749	701	55	1698
Phonographs. Starting and stopping device for	H. T. Holtz	463,990	Nov. 24	2824	732	57	1119
Phonographs. Turning-off device for	T. A. Edison	448,781	Mar. 24	2476	619	54	1615
Phonometer and phonoscope. Electro	I. H. Farnham	455,815	July 14	856	224	56	172
Phosphate. Ammoniated	J. Reese	450,253	Apr. 14	917	.....	55	182
Phosphate and making the same	J. Van Ruyambeke	446,087	Feb. 10	944	.....	54	703
Phosphate of alumina. Making	C. Glaser	453,299	June 2	181	.....	55	1182
Phosphates. Making alkaline	C. Glaser	446,815	Feb. 17	2121	.....	54	946
Phosphates. Separating alumina from	C. Glaser	453,300	June 2	182	.....	55	1182
Phosphorus and alkaline silicates. Apparatus for the manufacture of	L. M. C. Foliedesjardins	460,004	Sept. 22	2299	577	56	1531
Phosphorus. Manufacture of	H. H. Wing	452,821	May 26	2223	558	55	1021
Photograph apparatus. Coin-controlled	F. Martin	456,673	July 28	2196	582	56	445
Photograph-cabinet	O. M. Herberg	445,639	Feb. 3	195	52	54	550
Photograph-exhibitor	C. G. Soderstrom	463,557	Nov. 17	2124	560 561 704	57	979
Photograph-machine. Coin-operated	P. V. W. Welsh	465,740	Dec. 22	2759	705 706	57	1690
Photograph-negatives. Device for lifting	C. H. Buchwalter	450,447	Apr. 14	1221	298	55	239
Photograph-plates. Preparing	O. Moh	457,817	Aug. 18	1454	.....	56	823
Photographs and other prints. Enameling	C. C. F. Brandt	444,084	Jan. 6	165	.....	51	35
Photographs. Giving a matte surface to albumenized-silver-paper	J. D. Wrigglesworth and F. C. Binus	460,621	Oct. 6	122	.....	57	26
Photographs. Producing instantaneous	W. Donisthorpe and W. C. Crofts	452,966	May 26	2464	622 623	55	1067
Photographers. Developing-dish for	A. Doyle	454,518	June 23	2014	522	55	1556
Photographers. Flash-torch for	M. R. Hemperley	460,337	Sept. 29	2823	703	56	1639
Photographer's retouching and marking apparatus	C. Cutler	456,555	July 28	2002	528	56	406
Photographic apparatus	L. Lumière	444,535	Jan. 13	874	227	54	182
Photographic apparatus	O. Pasquarelli	445,232	Jan. 27	2017	520	54	418
Photographic apparatus	E. W. Perry, Jr	458,981	Sept. 1	677	165	56	1197
Photographic apparatus	E. V. Swinden and J. Earp	445,911	Feb. 3	644	158	54	639
Photographic apparatus	H. Thümler	458,609	Sept. 1	236	56	56	1110
Photographic apparatus. Automatic registering	E. E. Moore	459,411	Sept. 15	1372	344	56	1349
Photographic apparatus. Coin-controlled automatic	E. G. Fisher	444,487	Jan. 13	793	206 207	54	166
Photographic apparatus for holding and developing dry-plates	G. H. Cobb	444,422	Jan. 13	695	181	54	145
Photographic apparatus. Magazine plate-holder for	E. Kipper and E. W. Perry, Jr	458,907	Sept. 1	563	137	56	1173
Photographic apparatus. Plate-holder for	E. W. Perry, Jr	458,979	Sept. 1	673	165	56	1197
Photographic apparatus. Shutter for	W. E. Schneider	464,998	Dec. 15	1559	396	57	1452
Photographic background	W. G. Entwistle	445,805	Feb. 3	500	120	54	609
Photographic background	C. Fredricks	453,313	June 2	208	55	55	1187
Photographic cabinet	C. Quartley	450,475	Apr. 14	1259	307	55	246
Photographic camera	E. B. Barker	444,606	Jan. 13	1292	335	54	261
Photographic camera	F. Burrows	463,284	Nov. 17	1687	441 442	57	895
Photographic camera	B. J. Edwards	452,119	May 12	1090	277 278	55	787
Photographic camera	W. H. Fuller	445,550	Feb. 3	32	9	54	517
Photographic camera	J. H. Hare and B. P. Johnson	461,905	Oct. 27	2225	550	57	449
Photographic camera	F. A. Hetherington	463,123	Nov. 10	1441	372	57	840
Photographic camera	C. Mills	458,128	Aug. 18	1953	507	56	919
Photographic camera	E. W. Perry, Jr	456,842	July 28	2181	652 653	56	496
Photographic camera	D. J. Tapley	457,857	Aug. 18	1525	396	56	837
Photographic camera	M. Vega	452,926	May 26	2390	604 605	55	1052
Photographic camera	F. Whitney	446,045	Feb. 10	876	213 214	54	690
Photographic camera	C. Whitney	446,368	Feb. 10	1417	349	54	793
Photographic camera	C. Whitney	446,369	Feb. 10	1419	349	54	794
Photographic camera	C. Whitney	446,372	Feb. 10	1424	350	54	795
Photographic camera	C. Whitney	446,374	Feb. 10	1427	350 351	54	795
Photographic camera. Magazine	G. H. Hurlbut	462,842	Nov. 10	993	257	57	752
Photographic camera. Magazine	W. Trueman	462,459	Nov. 3	381	94	57	623
Photographic-camera shutter	G. F. Kincaid	444,361	Jan. 6	589	152	54	117
Photographic-camera shutter	H. B. Norton	446,880	Feb. 24	2239	557	54	977
Photographic-camera shutter	A. G. Tisdell	464,260	Dec. 1	403	96	57	1210
Photographic cameras. Lens-supporter for	C. Mills	464,962	Dec. 1	695	170	57	1267
Photographic cameras. Slide-shutter for	J. R. Connon	451,027	Apr. 28	2154	532	55	441
Photographic cameras. Supply-case for roll-holders in	C. Whitney	446,373	Feb. 10	1425	350	54	795
Photographic copying apparatus	S. C. Madsen	448,447	Mar. 17	1937	488	54	1505
Photographic exposures. Instrument for calculating	A. Watkins	456,669	July 28	2527	664	56	505
Photographic film	V. Planchon	448,364	Mar. 17	1803	455	54	1480
Photographic films. Manufacture of	B. J. Edwards	460,570	Oct. 6	43	10, 11	57	10
Photographic films. Manufacture of flexible	H. M. Reichenbach and S. C. Passavant	458,663	Sept. 1	183	.....	56	1100
Photographic films. Means for holding and carrying	E. E. Ellis and A. L. Lehnkering	462,116	Oct. 27	2547	633	57	510
Photographic films or plates. Carrier or envelope for	E. W. Perry, Jr	463,705	Nov. 24	2382	624	57	1035
Photographic mount. Water-proof and sensitized	H. Kuhn	450,963	Apr. 21	2051	506	55	413
Photographic negatives. Marking device for	B. A. Blakemore	456,396	July 21	1739	459	56	348
Photographic objective	E. Gundlach	461,609	Oct. 20	1729	424	57	346
Photographic objective	P. Rudolph	444,714	Jan. 13	1138	293 294	54	233
Photographic-plate holder	C. Whitney	446,370	Feb. 10	1421	349	54	794
Photographic-plate holder	C. Whitney	446,371	Feb. 10	1423	349	54	795
Photographic-plate holders, negatives, and stock. Cabinet for	G. H. Richards	445,861	Feb. 3	577	140	54	624
Photographic-plate-washing apparatus	T. W. Taylor	448,383	Mar. 17	1831	461	54	1485
Photographic plates or films. Exposing and shifting	E. W. Perry, Jr	458,980	Sept. 1	675	165	56	1197

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Photographic plates with emulsion. Apparatus for coating	J. H. Smith.....	455,954	July 14	1054	{ 276 277 }	56	209
Photographic-printing apparatus	R. J. Wynkoop and J. M. Kemp.....	445,581	Feb. 3	93	22	54	530
Photographic-printing frame	A. Barker.....	466,060	Dec. 29	3216	819	57	1785
Photographic-printing frame	H. Kuhn.....	465,277	Dec. 15	2023	517	57	1538
Photographic-printing frame. Adjustable	H. B. Hennemann.....	454,433	June 16	1886	492	55	1524
Photographic-printing frames. Support for	A. J. Dawdy.....	452,766	May 19	2140	536	55	995
Photographic-printing machine	D. C. Hoover.....	462,382	Nov. 3	264	65	57	601
Photographic process for printing in colors	J. C. Hösch.....	465,178	Dec. 15	1870	572	57	1509
Photographic purposes. Calendar for	A. Leutner.....	452,059	May 12	979	249	55	769
Photographic roll-paper holder	G. Jones.....	450,794	Apr. 21	1778	432	55	362
Photographic roll-holder	H. G. Ramsperger.....	448,801	Mar. 24	2502	{ 626 627 }	54	1620
Photographic shutter	E. B. Barker.....	461,910	Oct. 27	2232	552	57	450
Photographic shutter	E. Bausch, G. Hommel, and A. Wol- lensak.	444,083	Jan. 6	161	40, 41	54	35
Photographic shutter	G. W. Low and W. Shakespeare, Jr.	446,529	Feb. 17	1690	414	54	860
Photographic shutter	C. C. Packard.....	451,880	May 5	656	166	55	703
Photographic shutter	F. M. Spaulding.....	462,335	Nov. 3	182	46	57	585
Photographic shutters. Instantaneous	T. R. Dallmeyer and F. Beauchamp.	449,733	Apr. 7	140	35	55	29
Photographic stand	H. Vité.....	452,859	May 26	2279	572	55	1031
Photographic vignetting attachment.	G. H. Richards.....	459,938	Sept. 23	2213	556	56	1515
Photographing	I. H. Hamburger.....	457,712	Aug. 11	1272	329	56	780
Photography. Artificial light for	T. H. McCollin.....	445,188	Jan. 27	1953	505	54	405
Photography. Flash-light for	E. M. Pine.....	462,507	Nov. 3	448	109	57	636
Photometer and actinometer	L. H. Barker.....	464,059	Dec. 1	74	20	57	1151
Piano	W. Bieger.....	464,239	Dec. 1	364	88	57	1202
Piano	C. Chatfield.....	464,553	Dec. 8	839	207	57	1304
Piano	E. N. Cummings.....	454,901	June 30	2650	679	55	1680
Piano	A. Graff.....	449,933	Apr. 7	431	108	55	84
Piano	G. Steck.....	452,006	May 12	873	222	55	751
Piano	D. L. Stirn.....	447,380	Mar. 3	168	46	54	1150
Piano	R. B. Watson.....	463,245	Nov. 17	1631	425	57	884
Piano-action	H. Bescher, Jr.....	466,149	Dec. 29	3448	882	57	1832
Piano-action	A. H. Hastings.....	450,572	Apr. 14	1386	342	55	273
Piano-action	A. H. Hastings.....	457,714	Aug. 11	1275	{ 329 330 }	56	780
Piano-action	L. W. Norcross.....	454,976	June 30	2808	714	55	1710
Piano-action	A. F. S. Osterberg.....	453,603	June 2	662	170	55	1273
Piano-action	S. R. Perry.....	449,263	Mar. 31	3212	811	54	1764
Piano-action	S. R. Perry.....	457,666	Aug. 11	1203	309	56	766
Piano-action	J. Rudolf.....	444,057	Jan. 6	115	29	54	25
Piano-action	A. H. Stuart.....	451,682	May 5	335	82	55	642
Piano-action regulator	W. D. Gibbs.....	462,636	Nov. 3	652	165	57	677
Piano action. Upright	G. M. Guild.....	449,583	Mar. 31	3758	944	54	1864
Piano action. Upright	G. M. Guild.....	450,694	Apr. 21	1630	392	55	334
Piano-actions. Flange attachment for	A. P. Roth.....	462,777	Nov. 10	881	231	57	729
Piano-agraffe	J. W. Reed.....	464,994	Dec. 15	1555	395	57	1452
Piano and organ. Combined	J. A. Smith.....	447,120	Feb. 24	2636	654	54	1051
Piano attachment	C. L. E. Lugenbuehl.....	449,048	Mar. 24	2875	730	54	1692
Piano case. Upright	A. H. Hastings.....	448,032	Mar. 10	1252	319	54	1363
Piano-damper	J. W. Granger.....	446,097	Feb. 10	957	235	54	705
Piano-forte	G. Caddick.....	454,204	June 16	1535	404	55	1457
Piano-forte	V. H. Mathushsek.....	447,963	Mar. 10	1139	286	54	1340
Piano-forte	H. B. Nickerson.....	458,591	Sept. 1	68	15	56	1079
Piano-forte action	T. Cahill.....	458,219	Aug. 25	2099	{ 543 544 545 546 }	56	953
Piano-forte action	S. R. Perry. (Reissue).....	11,138	Jan. 6	680	177	54	134
Piano-forte action	S. R. Perry.....	453,938	June 9	1152	301	55	1376
Piano-forte action	J. H. Phelps.....	465,494	Dec. 22	2374	608	57	1616
Piano-forte action	W. Rohlfing, Jr.....	457,590	Aug. 11	1093	279	56	746
Piano-forte action	A. T. Rousseau.....	445,905	Feb. 3	638	157	54	637
Piano-forte damper	E. Peterson.....	463,449	Nov. 17	1953	510	57	946
Piano-forte muffling attachment	H. Mallebre.....	448,448	Mar. 17	1939	488	54	1505
Piano-forte pedal-action	C. L. Weser.....	448,308	Mar. 17	1710	{ 433 434 }	54	1462
Piano-forte pedal and guard	W. T. Sternenberg.....	444,307	Jan. 6	511	134	54	102
Piano-forte. Upright	A. B. Irving.....	461,833	Oct. 27	2108	519	57	426
Piano-fortes. Agraffe for	W. H. Ivers.....	448,406	Mar. 10	1273	325	54	1366
Piano-fortes. Octave-coupler for	S. Thompson and E. W. Shackell.....	455,550	July 7	404	106	56	78
Piano-fortes. Tone-regulator for	C. L. Weser.....	465,505	Dec. 22	2396	{ 613 614 615 616 }	57	1619
Piano-frame	A. H. Reed.....	464,992	Dec. 15	1552	{ 394 395 }	57	1451
Piano-framing	A. H. Reed.....	464,993	Dec. 15	1554	395	57	1451
Piano-lock	J. Roche.....	465,293	Dec. 15	2048	523	57	1543
Piano-mute	S. Freidenrich and T. J. Geisler.....	459,837	Sept. 22	2051	515	56	1485
Piano-packing device	W. Hay.....	447,112	Feb. 24	2628	651	54	1049
Piano-pedal	J. V. Goordman.....	456,088	July 14	1241	326	56	244
Piano-pedal	H. Mallebre.....	446,710	Feb. 17	1958	488	54	912
Piano-pedal	J. W. Reed.....	461,488	Oct. 20	1543	378	57	311
Piano-pedal	S. Seeley.....	457,592	Aug. 11	1099	280	56	747
Piano. Pedal	L. A. Subers.....	459,382	Sept. 8	1317	{ 328 329 330 }	56	1330
Piano pedal attachment	R. W. Blake.....	445,035	Jan. 20	1695	436	54	347
Piano-pedals attachment	G. C. A. Class.....	454,713	June 23	2333	600	55	1615
Piano-pliers	J. A. Schweeters.....	456,966	Aug. 4	67	16	56	546
Piano-tuning apparatus	A. Feildin.....	449,409	Mar. 31	3490	878	54	1813
Piano tuning-pin	H. Fascher.....	460,124	Sept. 29	2497	622	56	1575
Piano tuning-pin	C. Haake.....	461,217	Oct. 13	1051	266	57	209
Piano tuning-pin	W. H. Ivers.....	463,729	Nov. 24	2418	634	57	1042

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Piano. Upright	G. Cook	444,817	Jan. 20	1308	340	51	273
Piano. Upright	H. L. Greywack	446,595	Feb. 17	1778	439	54	878
Piano. Upright	C. L. Weser	465,506	Dec. 22	2401	614	57	1620
Pianos. Action-support for upright	W. M. Baner	454,576	June 23	2102	543	55	1572
Pianos. Lamp-support for	W. Anderson	451,251	Apr. 28	2514	620	55	512
Pianos. Pedal-action for	F. Hammerle	447,519	Mar. 3	59	16	54	1129
Pianos. Repeating-action for	J. W. Brackett and H. N. Moore	444,041	Jan. 6	95	24	54	21
Pianos. Stringing	L. A. Kindler	454,911	June 30	2669	683	55	1684
Pianos. Tone-sustaining device for	A. Pferder	448,887	Mar. 24	2635	662	54	1644
Pianos. Wrest-plank for	A. H. Reed	465,417	Dec. 15	2252	578	57	1582
Pick	A. E. Francis	453,860	June 9	1046	274	55	1355
Pick	A. E. Francis	454,543	June 23	2056	532	55	1564
Pick	A. E. Francis	461,881	Oct. 27	2182	538	57	440
Pick	J. M. Matthews and A. E. Francis	461,083	Oct. 13	832	214	57	167
Pick	W. Wilson	463,239	Nov. 17	1621	432	57	883
Picker:							
See Cotton-picker. Loom-picker.							
Fruit-picker. Potato-picker.							
Hair-picker. Slate-picker.							
Picket-wiring machine	J. R. Shaffer	451,581	May 5	206	49	55	619
Picture-canvas stretcher	E. P. T. Widell	455,523	July 7	350	90	56	69
Picture-card	W. Hageberg	445,174	Jan. 27	1927	498	54	400
Picture-exhibitor	N. R. Sheets	464,901	Dec. 8	1368	344	57	1405
Picture-frame	H. A. Foster	464,560	Dec. 8	849	209	57	1306
Picture-frame	J. F. McBride	448,821	Mar. 24	2528	633	54	1625
Picture-frame	S. P. Stoddard	452,925	May 26	2189	604	55	1052
Picture-frame fastener	J. A. Montz	459,513	Sept. 15	1528	382	56	1378
Picture-frames. Manufacture of	F. Koskul	457,478	Aug. 11	923	235	56	711
Picture-hanger	J. F. Coupe	454,111	June 16	1394	265	55	1429
Picture-hanger	A. Siddall	445,942	Feb. 3	697	170	54	649
Picture-hanger	W. C. Tidball	445,305	Jan. 27	2118	548	54	438
Picture-holder	T. Green	458,711	Sept. 1	251	59	56	1113
Picture-holder	M. Wirths	464,053	Dec. 1	66	19	57	1150
Picture-mat	J. Searvogel	460,663	Oct. 6	206	53	57	43
Picture-mats. Gage for	T. M. Adams	456,105	July 14	1263	332	56	249
Picture-mats. Material for	R. W. Bainbridge	452,911	May 26	2367	599	55	1047
Picture or mirror frame hanger	D. G. Rulon	449,496	Mar. 31	3630	914	54	1841
Picture. Transparent	J. McNevin	454,560	June 23	2079	.....	55	1568
Pictures, &c. Hanger for	L. J. Wylie	452,406	May 19	1567	388	55	888
Pictures on glass. Implement for mounting	R. H. L. Talcott	448,692	Mar. 24	2329	584	54	1587
Pictures. Producing surprise	O. Meyer	456,047	July 14	1190	.....	56	234
Pie-lifter	D. Munson	445,006	Jan. 20	1660	425	54	340
Pie-ventilator	S. Jenkins	451,382	Apr. 28	2703	671	55	548
Pier-protector	A. Moore	446,586	Feb. 17	1769	436	54	876
Pile-casing. Pliable-flange	E. Davis	464,960	Dec. 15	1471	370	57	1436
Pile-fabric-cutting apparatus	J. H. Smith, A. Goddard, L. Higginbottom, and T. Mannoek	448,088	Mar. 10	1330	340	54	1379
Pile fabrics. Ornamentation of	F. Koskul	462,140	Oct. 27	2584	644	57	517
Pile or dock-log	J. Osterboudt	459,500	Sept. 15	1505	377	56	1373
Piles. Apparatus for preserving	F. Batter	452,513	May 19	1737	437	55	917
Piles, &c. Coating for	F. E. Lampert	454,744	June 23	2379	.....	55	1624
Piling. Making tight joints in sheet	J. E. Robinson	454,382	June 16	1802	470	55	1507
Pill-box. Single-delivery	F. Koch	448,350	Mar. 17	1786	451	54	1476
Pill enumerator and bottling machine	F. L. Upjohn	453,873	June 9	1067	279	55	1359
Pill-machine	J. R. Clark	445,830	Feb. 3	530	128 } 129 }	54	615
Pill-machine	J. A. McFerran	449,424	Mar. 31	3520	886 } 887 }	54	1819
Pills and other similar articles. Machine for sorting	W. S. Hubbard and R. Gibbins	450,937	Apr. 21	1992	490	55	403
Pillow	W. W. Waterhouse	461,916	Oct. 27	2242	554	57	452
Pillow. Sham	D. G. Cameron	457,180	Aug. 4	381	97	56	605
Pillow-sham holder	F. P. Harriman	453,582	June 2	629	160	55	1266
Pillow-sham holder	W. Johnston	450,075	Apr. 7	630	158	55	123
Pillow-sham holder	E. E. Josef	457,781	Aug. 18	1393	360	56	812
Pillow-sham holder	F. Karr	444,981	Jan. 20	1622	415	54	333
Pillow-sham holder	W. L. Peever	447,118	Feb. 24	2634	654	54	1051
Pillow-sham holder	W. L. Peever	450,817	Apr. 21	1824	442	55	370
Pillow-sham holder	L. F. Preston	463,647	Nov. 24	2291	602	57	1019
Pillow-sham holder	W. T. Rutherford and A. J. Robberson	458,758	Sept. 1	318	77	56	1126
Pillow-sham holder	J. F. Spofford	461,990	Oct. 27	2354	584	57	473
Pillow-sham holder	F. J. Waite	451,538	May 5	141	35	55	606
Pin:							
See Clothes-pin. Piano tuning-pin.							
Crank-pin. Printers' gage-pin.							
Dowel-pin. Rolling-pin.							
Hair-pin. Safety-pin.							
Hat-pin. Scarf-pin.							
Husking-pin. Tether-pin.							
Pin for securing garments	J. Knoll	465,863	Dec. 29	2959	756	57	1738
Pins and broches. Fastening for scarf	C. Bachem	461,902	Oct. 27	2221	549	57	448
Pinchers. Lasting	F. W. Whitecher	455,892	July 14	959	251	56	193
Pine-needles. Machine for fibrillation of	A. Scott	447,206	Feb. 24	2806	694	54	1082
Pinion. Composite	J. Riddell	464,896	Dec. 8	1362	342	57	1404
Pipe:							
See Drain-pipe. Smoking-pipe.							
Hose-pipe. Socket-pipe.							
Hydraulic pipe. Stove-pipe.							
Metal soil-pipe. Subsoil-pipe.							
Overflow and waste pipe. Tobacco-pipe.							
Partitioned pipe. Waste-pipe.							
Sewer-pipe. Waste and overflow pipe.							
Sheet-metal pipe. Wooden pipe.							
Pipe	J. L. Cahalan	451,316	Apr. 28	2612	644	55	531

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Di'g.	Vol.	Page.
Pipe and boiler coverings. Composition for steam	F. B. Mott	462,057	Oct. 27	2451	607	57	491
Pipe and main clamp	T. McHugh	444,235	Jan. 6	413	103	54	81
Pipe and nut wrench	L. M. Cobb	464,274	Dec. 1	431	102	57	1216
Pipe and shaft coupling	R. Dinsmore	462,894	Nov. 10	1080	280	57	769
Pipe-bending machine	J. F. Doyle	462,538	Nov. 3	501	122	57	646
Pipe-clamp	W. Lee	452,307	May 12	1383	344	55	843
Pipe-clamp	J. Muirhead	456,769	July 28	2368	623	56	476
Pipe-clamp	O. L. Nettleton and C. F. Lee	453,745	June 9	890	231	55	1324
Pipe-connection	N. E. Smith	456,781	July 28	2382	626	56	478
Pipe connection. Flexible	D. Lippy	460,073	Sept. 2	2108	603	56	1551
Pipe connections of weldable material. Making	W. Thielmann	450,318	Sept. 8	1203	293	56	1308
Pipe-coupler	G. Collins	463,110	Nov. 10	1433	371	57	838
Pipe-coupling	W. Carey	462,621	Nov. 3	628	158	57	672
Pipe-coupling	E. W. Craine	465,087	Dec. 15	1712	436	57	1480
Pipe-coupling	M. Dillenburgh	455,178	June 30	3171	803	55	1781
Pipe-coupling	T. J. Hogan	444,179	Jan. 6	330	80	54	67
Pipe-coupling	F. Kaiser	448,765	Mar. 24	2452	613	54	1610
Pipe-coupling	P. C. Lawless	448,966	Mar. 24	2752	695	54	1668
Pipe-coupling	J. J. S. List	465,868	Dec. 29	2967	758	57	1739
Pipe-coupling	J. F. McElroy	458,793	Sept. 1	366	89	56	1135
Pipe-coupling	F. J. McGuire	449,293	Mar. 31	3266	828	54	1773
Pipe-coupling	J. W. Moore	451,565	May 5	181	44	55	614
Pipe-coupling	H. B. Nichols	449,566	Mar. 31	3728	936	54	1859
Pipe-coupling	T. W. Welsh	458,542	Aug. 25	2635	641	56	1055
Pipe-coupling	W. C. Westaway	454,690	June 23	2297	588	55	1607
Pipe-coupling	G. Westinghouse, Jr	454,129	June 16	1420	371	55	1434
Pipe-coupling and check-valve	W. T. Messinger	455,633	July 7	542	141	56	105
Pipe-coupling and stop-valve. Combined	F. L. Decarie and P. Lord	464,620	Dec. 8	939	232	57	1324
Pipe coupling and valve	W. T. Messinger	444,451	Jan. 13	730	191	54	153
Pipe-coupling. Automatic	J. Suydam	461,532	Oct. 20	1618	395	57	324
Pipe-coupling. Collared	J. J. Hogan	459,907	Sept. 22	2173	546	56	1507
Pipe-coupling for steam-heating or other pipes	R. I. Hampton	455,202	June 30	3205	814	55	1788
Pipe coupling. Hot-water heating	W. D. Johnson and T. A. Curtis	447,329	Mar. 3	75	21	54	1132
Pipe-coupling nipple	W. K. Homer	463,755	Nov. 24	2454	642	57	1049
Pipe-coupling nipple	J. W. Daly	446,511	Feb. 17	1660	405	54	854
Pipe coupling. Steam	J. Walker	465,899	Dec. 29	3028	774	57	1751
Pipe coupling. Steam and air	H. F. Chapin	452,689	May 19	2008	502	55	970
Pipe-cover	E. Walwyk	454,785	June 23	2136	626	55	1635
Pipe-covering	C. B. Manville	465,701	Dec. 22	2709	691	57	1680
Pipe covering. Steam	A. F. Hurst	462,047	Oct. 27	2435	603	57	489
Pipe covering. Steam	C. J. W. Shearer	456,661	July 28	2176	576	56	441
Pipe-cutter	M. Courtemanche	463,102	Nov. 10	1403	363	57	833
Pipe-cutter	J. B. Danjean	463,105	Nov. 10	1406	363	57	834
Pipe-cutter	G. F. Pottle	465,415	Dec. 15	2249	577	57	1581
Pipe-cutting machine	W. H. Garland	445,138	Jan. 20	1860	482	54	379
Pipe-forming apparatus. Tapering	C. M. Carnahan	455,271	June 30	3315	838	55	1808
Pipe-forming machine	S. Hartley	449,412	Mar. 31	3494	879	54	1814
Pipe-forming machine	D. A. Ritchie	445,202	Jan. 27	1972	510	54	409
Pipe-hanger	J. W. Birkett	462,616	Nov. 3	621	157	57	671
Pipe-hanger	R. C. Carpenter	447,297	Mar. 3	19	6	54	1122
Pipe-hanger	F. G. and G. L. Scott	448,550	Mar. 17	2080	522	54	1533
Pipe-holder	T. A. Perry	465,727	Dec. 22	2740	699	57	1686
Pipe-holding devices. Jaw for	W. Verdon	465,959	Dec. 29	3120	800	57	1768
Pipe-joint	G. A. Bidwell	460,424	Sept. 29	2945	736	56	1661
Pipe-joint. Suction	W. P. Humphreys	444,099	Jan. 6	187	46	54	39
Pipe-joint. Swing and extension	P. Brown	461,311	Oct. 13	1186	302	57	237
Pipe-joint. Swinging	W. L. Shepard	462,222	Oct. 27	2716	684	57	542
Pipe-leak detector	A. H. Brown	415,495	Jan. 27	2393	622	54	492
Pipe-lifter	W. A. Haulen	463,048	Nov. 10	1306	339	57	814
Pipe machine. Sewer	W. D. Sherman	462,087	Oct. 27	2487	617	57	499
Pipe-making apparatus	J. Simpson	453,114	May 12	1080	274	55	785
Pipe. Manufacture of lead-lined iron	G. W. Harrington	456,927	July 28	2630	689	56	524
Pipe. Means for attaching coupling-castings to sheet-metal	J. C. Bayles	455,502	July 7	317	81	56	64
Pipe-mold	F. Gandy	456,141	July 21	1327	351	56	271
Pipe or cigar-holder	E. C. Delimage	456,943	Aug. 4	34	7	56	539
Pipe or hollow shafting. Steam-joint for rotary	J. B. Morgan	459,692	Sept. 15	1819	456	56	1433
Pipe or hose coupling	G. A. and D. R. Stedman	456,295	July 21	1576	416	56	318
Pipe or nut wrench	G. B. Schaeffer	464,899	Dec. 8	1366	343	57	1405
Pipe or nut wrench	J. L. Taylor	464,401	Dec. 1	614	151	57	1250
Pipe or rod cutter	W. Vanderman	444,995	Jan. 20	1646	422	54	337
Pipe outlet. Drain	J. H. Elliott	458,950	Sept. 1	623	154	56	1186
Pipe presses. Apparatus for delivering clay to sewer	E. T. Mapel	446,530	Feb. 17	1691	414	54	860
Pipe punch and cutter	J. O. Kafader	462,800	Nov. 10	918	239	57	738
Pipe sleeve. Steam	T. Jacobs	446,685	Feb. 17	1922	479	54	904
Pipe-stock	D. C. Beane	444,666	Jan. 13	1104	285	54	226
Pipe-supporting device	J. Crawford and J. H. Young	460,631	Oct. 6	159	39	57	34
Pipe tester, closer, and clean-out	W. P. O'Brien	449,169	Mar. 31	3062	775	54	1736
Pipe thimble or collar. Steam or other	C. F. Tew	463,781	Nov. 24	2485	649	57	1055
Pipe threading and cutting machine	S. D. Gratiaa	458,899	Sept. 1	552	134	56	1171
Pipe-wrench	R. Atkin	464,238	Dec. 1	363	88	57	1202
Pipe-wrench	J. S. Barden	458,934	Sept. 1	606	149	56	1183
Pipe-wrench	T. Bird	459,559	Sept. 15	1605	403	56	1392
Pipe-wrench	G. H. Buzzell	463,784	Nov. 24	2469	650	57	1056

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Pipe-wrench	H. K. Carpenter	464,192	Dec. 1	286	70	57	1,888
Pipe-wrench	F. Cook	461,894	Oct. 27	2200	543	57	444
Pipe-wrench	T. J. Duncan and D. McManus	446,592	Feb. 17	1776	438	54	877
Pipe-wrench	R. S. Gillespie and H. James	460,008	Sept. 22	2306	578	56	1532
Pipe-wrench	R. S. Gillespie and H. James	461,750	Oct. 20	1958	486	57	389
Pipe-wrench	W. E. Goodnow and H. R. Margason	416,547	Feb. 17	1717	421	54	865
Pipe-wrench	M. H. McNair	449,627	Mar. 31	3852	964	54	1882
Pipe-wrench	C. Miller	461,032	Oct. 13	760	195	57	154
Pipe-wrench	E. Murphy	460,591	Oct. 6	74	20	57	16
Pipe-wrench	T. Newman	450,676	Apr. 21	1604	386	55	329
Pipe-wrench	T. Newman	450,972	Apr. 21	2068	510	55	417
Pipe-wrench	F. S. Patton	461,769	Oct. 20	1992	493	57	395
Pipe-wrench	H. Phillips	454,917	June 30	2689	688	55	1688
Pipe-wrench	J. Ryan	461,714	Oct. 20	1906	472	57	378
Pipe-wrench	G. F. Shaw	444,255	Jan. 6	440	111	54	86
Pipe-wrench	J. C. Sproull	444,372	Jan. 6	609	156	54	120
Pipe-wrench	D. P. Stanton	447,377	Mar. 3	165	45	54	1149
Pipe-wrench	J. E. Wakefield	454,893	June 30	2635	676	55	1677
Pipe-wrench	E. M. Watson	457,064	Aug. 4	210	51	56	573
Pipe-wrench	C. F. West	448,619	Mar. 17	2203	551	54	1556
Pipe-wrench	A. C. Whittier	464,168	Dec. 1	243	60	57	1182
Pipe-wrench. Adjustable	C. V. Greenamyer	444,779	Jan. 13	1252	325	54	252
Pipe-wrench. Three-gripped self-adjusting	G. Gunnarson	460,230	Sept. 29	2649	660	56	1606
Pipe-wrenches. Die for making	S. Fawcett and H. F. Smith	464,352	Dec. 1	547	133	57	1238
Pipes, &c. Air-space covering for steam-	J. P. Costigan and T. M. Vallean	447,243	Feb. 24	2876	714	54	1096
Pipes, boilers, &c. Air-space covering for steam-	J. P. Costigan	459,035	Sept. 8	765	186	56	1222
Pipes. Coating composition for the covering of steam-	R. S. Miller	465,717	Dec. 22	2728		57	1683
Pipes. Covering for steam or hot-water	C. C. Gilman	446,860	Feb. 24	2203	548	54	971
Pipes. Detachable bottom for	W. L. Heiniken	446,634	Feb. 17	1836	454	54	899
Pipes, &c. Device for lowering and elevating	R. C. Livingston	461,351	Oct. 13	1250	318	57	250
Pipes. Device for thawing ice from	I. H. Simpson	458,503	Aug. 25	2579	628	56	1042
Pipes. Method of and apparatus for connecting branches to.	P. Eley	460,173	Oct. 6	379	93	57	74
Pipes. Self-adjusting frost-protector for ventilating-	T. C. Boyd	449,199	Mar. 31	3117	787	54	1746
Pipes. Stop-box for water or gas	E. G. Crawford	454,398	June 16	1821	476	55	1511
Pipes to fittings. Coupling for uniting	J. J. Hogan	459,910	Sept. 22	2175	547	56	1507
Pipes with lead pipes. Nipple for connecting iron	J. W. Daly	461,127	Oct. 13	884	229	57	177
Piping for pneumatic brakes, &c. Flexible	P. C. Lawless	445,250	Jan. 27	2045	525	54	423
Pistol. Magazine-	C. Tribuzio	461,968	Oct. 27	2321	576	57	467
Piston	W. E. Good and C. O. Lindroth	451,478	May 5	49	12	55	588
Piston	G. Westinghouse, Jr	455,029	June 30	2905	738	55	1729
Piston engine	L. M. Shaw	455,061	June 30	2961	753	55	1740
Piston meter	H. C. Ahrbecker	455,244	June 30	3264	828	55	1799
Piston meter	J. B. Deeds	449,617	Mar. 31	3837	960	54	1878
Piston-rods or other rods to their cross-heads. Device for fastening adjustably	J. Hundgeburth	446,521	Feb. 17	1676	409	54	857
Piston-travel indicator	E. B. Thompson and C. A. Schroyer	444,077	Jan. 6	154	38	54	33
Pitcher. Beverage-	O. W. Van Denburgh	451,584	May 5	209	50	55	619
Pitchers. Anti-drip nose for	A. M. Herring	457,716	Aug. 11	1280	331	56	781
Pitching-machine	W. Arneemann	466,027	Dec. 29	3258	830	57	1794
Pitman	L. S. Bunker	465,454	Dec. 22	2310	593	57	1604
Pitman. Adjustable	G. E. Meeker	453,599	June 2	657	169	55	1272
Pitman-head	J. Garfield	445,775	Feb. 3	434	108	54	597
Pitman-starter. Automatic	A. Fahrney	462,811	Nov. 10	942	245	57	742
Pivoted-jaw wrench	C. V. Greenamyer	444,777	Jan. 13	1250	324	54	252
Placer-machine	G. M. Reed	453,278	June 2	152	43	55	1177
Plane	J. K. Kendrick	459,122	Sept. 8	913	219	56	1250
Plane	G. W. Wright	445,792	Feb. 3	463	114	54	602
Plane	G. W. Wright	445,792	Feb. 3	464	114	54	602
Plane attachment	G. H. Melendy	464,701	Dec. 8	1077	267	57	1349
Plane. Bench-	M. J. Dunn and W. H. Montgomery	461,166	Oct. 13	944	244	57	188
Plane. Bench-	J. Siegly	446,194	Feb. 10	1126	276	54	734
Plane. Bench-	S. Tuoti	453,524	June 2	541	139	55	1250
Plane. Bench-	C. F. Young	455,957	July 14	10	278	56	210
Plane-bit fastening	C. F. Young	456,104	July 14	1263	332	56	249
Plane. Carpenter's	O. Longval	444,897	Jan. 20	1477	382	54	305
Plane. Hand-	J. H. Ferguson	458,676	Sept. 1	202	47	56	1104
Plane-iron-sharpening apparatus	C. Bransgrove	451,801	May 5	544	134	55	682
Planer and key-seating machine. Combined portable	M. Morton	453,653	June 9	750	193	55	1297
Planers. Clutching mechanism for	T. H. Needham	453,415	June 2	379	98	55	1218
Planers. Driving-gear for	G. F. Velivar	444,309	Jan. 6	514	134	54	103
Planers or other machines. Clamp for	A. N. Chalmers and J. R. Wallace	459,530	Sept. 15	1557	388	56	1383
Planing and dressing machine. Slat	J. A. Baldwin	456,323	Aug. 25	2283	559	56	987
Planing and matching machine	W. H. Doane	463,577	Nov. 17	2159	570	57	986
Planing and sizing machine	H. N. Berry	452,659	May 19	1963	492	55	961
Planing-machine	J. Sorenson	460,187	Sept. 29	2585	644	56	1593
Planing-machine	J. R. Thomas	449,384	Mar. 17	1833	462	54	1485
Planing-machines. Belt-shifter for	E. A. Walker	451,958	June 30	2765	705	55	1702
Planing machines. Feed mechanism for wood-	J. F. Welch	461,557	Oct. 20	1657	405	57	332
Planing machines. Rotary cylinder and cutting-knife for	S. Erb	456,761	July 28	2356	620	56	474
Planimeter. Polar	A. B. Calkins	458,968	Sept. 1	652	159	56	1193
Plant-duster	H. B. Adams	455,785	July 14	796	208	56	162
Plant-setter and seed-planter. Combined	J. W. McKay	450,946	Apr. 21	2006	494	55	405
Plant-setter	A. E. Whitehouse	462,674	Nov. 3	712	183	57	688
Planter	O. E. Baldridge	455,150	June 30	3118	792	55	1770

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Planter	F. E. Barr	444,228	Jan. 6	405	{ 100	54	80
Planter	G. E. Bourell and E. M. Harrison ..	457,699	Aug. 11	1251	{ 101		
Planter	J. C. Cayton	447,759	Mar. 10	780	{ 193	54	1273
Planter	L. C. Evans	462,542	Nov. 3	504	{ 194		
Planter	F. M. Haines	451,819	May 5	572	141	55	688
Planter	J. A. Handeland	454,348	June 16	1743	453	55	1497
Planter	J. Jay and N. Iddings	461,614	Oct. 20	1746	430	57	348
Planter	A. L. Johnson	462,712	Nov. 10	779	203	57	709
Planter	W. W. Jones	456,038	July 14	1178	310	56	232
Planter	L. B. Lancaster	444,072	Jan. 6	147	37	54	32
Planter	W. A. McAlpine	459,551	Sept. 15	1590	398	56	1389
Planter	J. M. Normand	455,290	June 30	3358	{ 847	55	1817
Planter	T. C. Patterson	454,183	June 16	1505	{ 848		
Planter	W. A. Stewart	464,399	Dec. 1	612	151	57	1250
Planter	E. Tyden	445,604	Feb. 3	131	34, 35	54	537
Planter	E. Tyden and S. B. Dover	453,330	June 2	231	{ 61	55	1192
Planter .....	.....	.....	.....	.....	{ 62		
Planter and cultivator. Seed	R. N. McClain and J. H. Caldwell ..	455,236	June 30	3251	{ 63	55	1796
Planter and fertilizer-distributor	W. J. Eason	462,759	Nov. 10	852	223	57	724
Planter and fertilizer-distributor	A. S. Heath and O. V. Metts	456,412	July 21	1762	{ 465	56	353
Planter and fertilizer-distributor. Combined	T. O. Head	466,236	Dec. 29	3572	{ 466		
Planter and fertilizer-distributor. Combined	P. Montecino	460,880	Oct. 6	527	134	57	104
Planter and fertilizer-distributor. Combined cotton-seed	J. M. Orr	446,978	Feb. 24	2405	{ 598	54	1007
Planter and fertilizer-distributor. Corn .....	.....	.....	.....	.....	{ 599		
Planter and fertilizer-distributor. Corn	W. H. Davis	455,682	July 7	615	{ 161	56	119
Planter and fertilizer-distributor. Corn or cotton	J. A. McPherson	466,181	Dec. 29	3494	{ 162		
Planter and fertilizer-distributor. Seed	J. M. Crout	460,818	Oct. 6	442	{ 111	57	88
Planter and marker. Seed	G. P. Van Wye	461,060	Oct. 13	797	{ 112		
Planter attachment. Corn	S. M. Bowman	460,739	Oct. 6	334	82	57	66
Planter attachment. Corn	J. B. Pedrick	460,150	Sept. 29	2546	635	56	1585
Planter. Check-row	G. H. Gard and G. C. Shoolridge ..	457,113	Aug. 4	277	72	56	586
Planter. Check-row corn	J. W. Parker	461,707	Oct. 20	1899	469	57	377
Planter. Check-row corn	R. L. Woodling	463,881	Nov. 24	2653	691	57	1087
Planter. Combined cotton and corn	E. D. Carter	445,635	Feb. 3	182	43	54	547
Planter. Corn	J. B. Adams, Jr	463,931	Nov. 24	2734	709	57	1102
Planter. Corn	O. A. Berio	459,671	Sept. 15	1792	451	56	1427
Planter. Corn	C. J. Brown	456,548	July 28	1988	{ 524	56	404
Planter. Corn .....	.....	.....	.....	.....	{ 525		
Planter. Corn	J. H. Brumbaugh, J. M. Radcliff, and F. C. Hyde ..	459,831	Sept. 22	2044	514	56	1483
Planter. Corn	H. Bush	460,248	Sept. 29	2673	666	56	1610
Planter. Corn	G. W. Campbell	458,096	Aug. 18	1905	496	56	910
Planter. Corn	G. J. Cline	457,398	Aug. 11	793	204	56	688
Planter. Corn	P. F. Close	463,484	Nov. 17	2008	525	57	957
Planter. Corn	J. R. Cox	464,010	Dec. 1	13	4	57	1139
Planter. Corn	P. Friederick	444,645	Jan. 13	1035	{ 269	54	213
Planter. Corn .....	.....	.....	.....	.....	{ 270		
Planter. Corn	E. Godden and G. R. Whitehurst ..	448,649	Mar. 24	2262	567	54	1574
Planter. Corn	E. M. Heylman	451,871	May 5	643	{ 161	55	701
Planter. Corn .....	.....	.....	.....	.....	{ 162		
Planter. Corn	F. P. Howard	445,557	Feb. 3	46	12	54	520
Planter. Corn	S. Huffman	452,709	May 19	2040	{ 511	55	977
Planter. Corn .....	.....	.....	.....	.....	{ 512		
Planter. Corn	E. S. Hughes and G. Conner	450,019	Apr. 7	550	137	55	107
Planter. Corn	W. F. Johnson	454,871	June 30	2591	{ 665	55	1669
Planter. Corn .....	.....	.....	.....	.....	{ 666		
Planter. Corn	J. Kleihauer, Jr	450,026	Apr. 7	562	140	55	109
Planter. Corn	W. T. Locke	452,906	May 26	2358	596	55	1046
Planter. Corn	H. C. Lohff	460,588	Oct. 6	71	19	57	16
Planter. Corn	F. F. Mace	452,411	May 19	1571	390	55	888
Planter. Corn	C. O. Parkhurst	454,601	June 23	2163	558	55	1582
Planter. Corn	J. R. Payne	454,378	June 16	1797	469	55	1506
Planter. Corn	A. F. Runyan	447,205	Feb. 24	2804	{ 693	54	1082
Planter. Corn .....	.....	.....	.....	.....	{ 694		
Planter. Corn	J. D. Schofield	446,118	Feb. 10	990	244	54	712
Planter. Corn	J. Seelbach, Jr	462,281	Nov. 3	91	24	57	568
Planter. Corn	J. Selby	455,839	July 14	885	232	56	178
Planter. Corn	J. Selby	455,840	July 14	886	233	56	179
Planter. Corn	G. S. Sheffield	461,054	Oct. 13	790	201	57	159
Planter. Corn	H. J. Wagner	444,030	Jan. 6	73	20	54	18
Planter. Corn	E. B. Wells	462,223	Oct. 27	2717	684	57	542
Planter. Corn	A. Wenzel	465,402	Dec. 15	2231	572	57	1578
Planter. Cotton	W. P. and Y. M. Bledsoe	459,230	Sept. 8	1072	{ 260	56	1280
Planter. Cotton .....	.....	.....	.....	.....	{ 261		
Planter. Cotton	J. H. Branan	453,610	June 9	680	177	55	1284
Planter. Cotton	W. W. Clock	456,138	July 21	1320	348	56	270
Planter. Cotton	D. L. Ham	453,973	June 9	1196	{ 312	55	1385
Planter. Cotton .....	.....	.....	.....	.....	{ 313		
Planter. Cotton	M. H. and T. D. Owen	452,313	May 12	1390	345	55	844
Planter. Cotton	J. D. Schofield	445,734	Feb. 3	360	93	54	583
Planter. Cotton-seed and corn	A. Kleiser	452,674	May 19	1985	498	55	966
Planter. Disk corn	C. H. and H. L. Dooley	448,943	Mar. 24	271C	685	54	1661
Planter. Hand	W. Fisk	458,449	Aug. 25	2487	605	56	1025
Planter. Hand	C. H. Fulkerson	465,846	Dec. 29	2936	751	57	1733
Planter. Hand	S. Hackett	460,010	Sept. 22	2308	579	56	1533
Planter. Hand corn	J. A. Rector	460,990	Oct. 13	699	180	57	143
Planter. Potato	A. Chapie	444,192	Jan. 6	350	86	54	71

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Planter. Potato.....	L. L. Cowles.....	444,521	Jan. 13	851	232	54	178
Planter. Potato.....	F. A. Miles and A. C. Arter.....	459,966	Sept. 22	2246	{ 564 565 312 313	56	1521
Planter. Potato.....	F. Storek.....	446,271	Feb. 10	1275	{ 312 313	54	763
Planter. Potato.....	S. Wells.....	466,207	Dec. 29	3528	902	57	1847
Planter. Potato.....	E. Wooldridge.....	453,228	June 2	71	18	55	1162
Planter. Seed.....	G. A. Adsit.....	463,021	Nov. 10	1266	328	57	806
Planter. Seed.....	L. S. Flatau.....	464,741	Dec. 8	1141	283	57	1361
Planter. Seed.....	J. Howland.....	451,761	May 5	491	{ 121 122	55	671
Planter. Seed.....	E. S. Keeler.....	454,216	June 16	1551	408	55	1460
Planter. Seed.....	E. S. Keeler.....	454,217	June 16	1553	{ 408 409	55	1460
Planter. Seed.....	J. J. Simon.....	445,205	Jan. 27	1976	511	54	410
Planter. Seed.....	J. W. Thompson.....	458,346	Aug. 25	2325	{ 567 568 239 240	56	995
Planter. Seed.....	J. K. Underwood.....	461,153	Oct. 13	927	239	57	185
Planter. Single-seed.....	J. B. Hurd and H. H. McLane.....	445,641	Feb. 3	198	52, 53	54	551
Planters and markers. Wheel for corn.....	J. De Butts.....	445,713	Feb. 3	323	86	54	576
Planters. Check-row attachment for corn.....	C. S. Bean.....	454,150	June 16	1455	{ 381 382	55	1441
Planters. Coverer for.....	J. B. Wilson.....	457,945	Aug. 18	1680	440	56	866
Planters. Driving mechanism for.....	A. J. Helvern and W. B. Schwalm.....	459,289	Sept. 8	1163	283	56	1299
Planters. Dropper-guide for corn.....	A. F. Aldridge.....	449,100	Mar. 31	2957	749	54	1717
Planting attachment. Potato.....	J. H. Forman.....	464,263	Dec. 1	414	9	57	1212
Planting machine. Cane.....	J. O Bourke.....	454,158	June 23	2397	615	55	1628
Plaster.....	T. Jones.....	451,560	May 5	176	.....	55	613
Plaster and making the same. Compound to restrain the setting of.....	G. E. Coy.....	465,614	Dec. 22	2582	.....	57	1654
Plaster casts. Making.....	L. Enricht.....	450,287	Apr. 14	961	.....	55	191
Plaster casts. Making.....	L. Enricht.....	450,288	Apr. 14	961	.....	55	191
Plaster. Composition of matter for restraining the setting of.....	E. Watson.....	458,742	Sept. 1	294	.....	56	1122
Plaster. Composition of matter for restraining the setting of.....	E. Watson.....	458,743	Sept. 1	295	.....	56	1122
Plaster. Composition of matter for retarding the setting of.....	E. Watson.....	445,211	Jan. 27	1984	.....	54	412
Plaster compounds. Composition of matter for restraining the setting of.....	E. Watson.....	446,604	Feb. 17	1790	.....	54	880
Plaster-of-paris bandages, &c. Device for cutting.....	J. L. Hanchett.....	453,239	June 2	94	25	55	1166
Plaster or composition casts. Mold for making.....	L. Napion.....	449,945	Apr. 7	448	112	55	87
Plaster slab.....	R. R. Coursen.....	447,025	Feb. 24	2485	618	54	1021
Plastering composition.....	A. Anthony.....	456,297	July 21	1578	.....	56	318
Plastering. Composition for.....	R. G. Farnham.....	446,382	Feb. 10	1438	.....	54	798
Plastering compound.....	E. H. Benedict.....	460,520	Sept. 29	3108	.....	56	1694
Plastering compound.....	W. M. Dawson.....	464,116	Dec. 1	164	.....	57	1168
Plastering compound.....	I. C. Hart.....	452,346	May 12	1464	.....	55	858
Plastering. Stucco for.....	E. Olson.....	445,264	Jan. 27	2071	.....	54	428
Plastering walls, &c. Composition of matter for.....	W. J. Reagan and R. R. Longley.....	451,519	May 5	109	.....	55	600
Plastic material. Composition of.....	J. S. Palmer.....	447,412	Mar. 3	231	.....	54	1161
Plastic material. Machine for shaping.....	W. A. Hull and A. G. Boyer.....	447,132	Feb. 24	2653	{ 658 659	54	1054
Plastic material. Press for shaping.....	W. A. Hull and A. G. Boyer.....	447,187	Feb. 24	2774	{ 686 687	54	1076
Plastic material. Producing articles of.....	G. W. Beyer.....	447,556	Mar. 3	471	116	54	1206
Plastic material. Work of re-enforced.....	P. Cottancin.....	459,944	Sept. 22	2218	558	56	1516
Plastic materials. Machine for molding or embossing.....	H. McHugh.....	459,817	Sept. 22	2023	507	56	1478
Plastic materials. Mold for.....	H. B. Garrigues.....	457,192	Aug. 4	400	{ 104 105	56	609
Plastic materials. Ornamenting.....	M. Housman.....	455,666	July 7	596	156	56	116
Plastic ornaments on profiled borders, &c. Apparatus for producing.....	J. Weies and P. Gassen.....	452,204	May 12	1230	311	55	814
Plate-bending machine.....	J. H. Stonemetz.....	465,637	Dec. 22	2024	{ 668 669	57	1662
Plate, cup, and sancer holder.....	J. H. Yund.....	462,347	Nov. 3	212	50	57	591
Plate or pie lifter.....	D. H. Sweeney.....	450,477	Apr. 14	1263	308	55	247
Plates, dishes, &c. Machine for washing.....	G. W. B. Crees.....	459,927	Sept. 22	2200	553	56	1512
Plates for purposes of utility or ornament. Preparing.....	H. Goodwin.....	459,136	Sept. 8	929	{ 223 224	56	1254
Plates for purposes of utility or ornament. Preparing.....	H. Goodwin.....	459,137	Sept. 8	932	224	56	1254
Plates for utility and ornament. Preparing.....	H. Goodwin.....	444,952	Jan. 20	1586	406	54	324
Plates. Machine for cutting holes in.....	F. Schoff.....	450,428	Apr. 14	1195	292	55	235
Plates or surfaces for ornamentation. Preparing.....	H. Goodwin.....	444,951	Jan. 20	1580	.....	54	323
Platform: See Car-platform. Performing-platform. Chimney-platform.							
Platform adjustment.....	J. F. R. Holmes.....	460,824	Oct. 6	451	114	57	90
Platform-elevator.....	G. Ruddell.....	445,610	Feb. 3	144	37	54	539
Platform-elevator.....	G. Ruddell.....	445,611	Feb. 3	145	38	54	539
Playing duplicate whist. Apparatus for.....	C. M. Paine and J. L. Sebring.....	462,448	Nov. 3	362	90	57	619
Plicating-machine.....	A. H. Sutton.....	466,023	Dec. 29	3251	{ 828 829	57	1793
Pliers.....	F. W. Brocksieper.....	444,207	Jan. 6	370	92	54	74
Pliers.....	L. Hugoniot-Tissot.....	446,972	Feb. 24	2396	597	54	1005
Pliers.....	P. Meyer.....	460,590	Oct. 6	73	20	57	16
Pliers.....	W. J. Monteith.....	456,049	July 14	1193	313	56	235
Pliers.....	S. Ruffer.....	463,921	Nov. 24	2718	706	57	1099
Pliers.....	T. F. Vandegrift.....	449,250	Mar. 31	3199	806	54	1762
Pliers.....	G. Wyatt.....	444,035	Jan. 6	86	22	54	20
Pliers. Cutting.....	C. Boecker.....	456,352	July 21	1658	438	56	334

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Plotter.....	R. L. Barnhart.....	448,109	Mar. 10	1357	348	54	1384
Plotter.....	G. A. Brown.....	444,312	Jan. 6	518	135	54	104
Plotter.....	V. H. Smith.....	448,685	Mar. 24	2320	581	54	1585
Plotter.....	J. A. F. Svenson.....	461,879	Oct. 27	2178	537	57	440
Plow.....	J. F. Akin.....	453,688	June 9	806	206	55	1309
Plow.....	G. W. Baker.....	450,281	Apr. 14	951	236	55	189
Plow.....	A. F. Ball.....	447,521	Mar. 3	421	103	54	1197
Plow.....	W. F. Brown.....	452,881	May 26	2320	585	55	1039
Plow.....	G. J. Buckley, Jr., and O. F. Firestone.	461,627	Oct. 20	1771	436	57	352
Plow.....	T. G. Eason.....	446,965	Feb. 24	2384	593	54	1003
Plow.....	A. Ellis.....	464,095	Dec. 1	136	34	57	1163
Plow.....	C. P. Finegan.....	463,624	Nov. 24	2249	592	57	1012
Plow.....	A. M. Fitch.....	464,015	Dec. 1	19	6	57	1140
Plow.....	N. H. Harris.....	455,830	July 14	876	{ 229 230 }	56	176
Plow.....	H. L. Harwood.....	465,709	Dec. 22	2717	{ 693 694 }	57	1681
Plow.....	C. Hartzell.....	461,113	Oct. 13	867	223	57	174
Plow.....	L. F. Haynes.....	451,931	May 12	756	191	55	729
Plow.....	E. A. Hollister.....	445,471	Jan. 27	2355	612	54	485
Plow.....	W. H. Holsclaw.....	459,204	Sept. 8	1034	252	56	1273
Plow.....	W. H. Holsclaw.....	460,339	Sept. 29	2829	703	56	1640
Plow.....	J. G. Hunt.....	449,678	Apr. 7	47	11, 12	55	11
Plow.....	R. S. Hyer.....	447,517	Mar. 3	412	101	54	1195
Plow.....	E. B. James.....	453,191	June 2	20	6	55	1152
Plow.....	W. E. Keese.....	460,292	Sept. 29	2752	686	56	1625
Plow.....	S. Landauer.....	462,801	Nov. 10	918	239	57	738
Plow.....	C. W. Larsen.....	460,020	Sept. 22	2322	582	56	1536
Plow.....	J. A. McIver.....	449,565	Mar. 31	3727	936	54	1858
Plow.....	R. B. McKay.....	457,893	Aug. 18	1589	413	56	848
Plow.....	J. E. and E. M. Mitchell.....	448,740	Mar. 24	2414	603	54	1603
Plow.....	J. W. Montgomery.....	459,410	Sept. 15	1371	343	56	1349
Plow.....	N. P. Perrin.....	465,068	Dec. 15	1672	495	57	1473
Plow.....	G. W. Phinney.....	449,331	Mar. 31	3346	844	54	1786
Plow.....	E. E. Renshaw and T. J. Clanahan	456,522	July 21	1948	513	56	388
Plow.....	J. W. Rutherford.....	459,415	Sept. 15	1376	345	56	1350
Plow.....	S. H. Sayre, Jr.....	465,731	Dec. 22	2744	700	57	1687
Plow.....	M. B. Smith.....	462,780	Nov. 10	884	232	57	730
Plow.....	W. W. Spear.....	447,498	Mar. 3	388	95	54	1191
Plow.....	C. D. Stuard.....	444,718	Jan. 13	1145	295	54	234
Plow.....	O. and E. Swedburg.....	453,834	July 14	880	231	56	177
Plow.....	B. C. Troxler.....	445,913	Feb. 3	649	159	54	639
Plow.....	W. Watson.....	445,027	Jan. 20	1685	433	54	345
Plow.....	I. Williams.....	447,862	Mar. 10	873	217	54	1290
Plow.....	V. L. Williams.....	462,787	Nov. 10	897	235	57	733
Plow.....	W. H. Wilson.....	459,667	Sept. 15	1768	450	56	1426
Plow and cultivator.....	J. H. Christian and F. Stanley.....	451,806	May 5	551	136	55	684
Plow and fertilizer-distributer. Combined.....	S. McLean.....	446,389	Feb. 10	1453	356	54	801
Plow and fertilizer-distributer. Combined.....	W. F. Moss.....	447,156	Feb. 24	2729	676	54	1067
Plow and potato-digger. Combined.....	W. E. Anderson.....	450,128	Apr. 14	711	179	55	145
Plow and pulverizer. Combined.....	J. C. and W. N. Arrington.....	448,770	Mar. 24	2458	{ 614 615 }	54	1611
Plow attachment.....	G. W. Ackerman.....	454,606	June 23	2175	561	55	1584
Plow attachment.....	W. F. Camp.....	459,743	Sept. 22	1907	481	56	1456
Plow attachment.....	J. Creighton and C. H. Drury.....	453,108	May 26	2698	680	55	1113
Plow attachment.....	A. M. Miller.....	465,187	Dec. 15	1881	477	57	1511
Plow attachment.....	M. H. Snow.....	444,715	Jan. 13	1142	294	54	233
Plow attachment.....	T. G. Tasker.....	445,267	Jan. 27	2073	535	54	428
Plow attachment.....	J. S. Whiteside.....	462,287	Nov. 3	108	26	57	572
Plow attachment.....	G. M. D. Williams.....	465,706	Dec. 22	2713	692	57	1680
Plow attachment, &c.....	C. E. Wilson.....	451,966	May 12	807	205	55	739
Plow attachment.....	F. R. Winter.....	457,689	Aug. 11	1236	317	56	772
Plow attachment. Tongueless.....	N. Swager.....	466,197	Dec. 29	3515	899	57	1845
Plow attachment. Hillside.....	C. W. Clapp and E. C. Westervelt.....	462,203	Oct. 27	2683	675	57	536
Plow-beams. Adjustable connection for.....	A. T. Scott.....	452,321	May 12	1418	351	55	850
Plow-bolt holder.....	N. W. Vernon.....	447,706	Mar. 3	686	170	54	1248
Plow. Combination.....	W. H. Davis.....	448,414	Mar. 17	1884	473	54	1495
Plow. Combination cotton.....	C. M. Williams.....	464,541	Dec. 8	825	203	57	1301
Plow. Cotton.....	J. J. Leviston.....	457,650	Aug. 11	1175	301	56	761
Plow. Cultivating.....	P. B. Tice.....	465,297	Dec. 15	2054	{ 524 525 }	57	1544
Plow-fender.....	J. N. Bellinger.....	458,214	Aug. 25	2089	541	56	951
Plow-fender.....	R. Jefferson.....	458,659	Sept. 1	176	41	56	1099
Plow-fender.....	D. C. McConnell.....	464,102	Dec. 1	143	36	57	1164
Plow. Gang.....	G. P. Cleveland.....	455,171	June 30	3153	800	55	1777
Plow. Gang.....	L. Gibbs.....	447,724	Mar. 3	715	179	54	1253
Plow. Gang.....	F. M. Mecum.....	459,524	Sept. 15	1549	366	56	1381
Plow. Gang.....	J. and W. Paterson.....	449,329	Mar. 31	3344	843	54	1786
Plow, harrow, and cultivator. Combined.....	C. L. Drew.....	464,602	Dec. 8	911	224	57	1319
Plow. Hillside.....	W. E. Sefton.....	461,624	Oct. 20	1765	431	57	351
Plow-jointer.....	J. T. Bender.....	445,281	Jan. 27	2090	539	54	432
Plow pulverizing attachment.....	J. M. Pirtle.....	461,846	Oct. 27	2124	523	57	428
Plow. River-channel.....	D. H. Solomon.....	449,184	Mar. 31	3091	{ 779 780 }	54	1741
Plow. Rotary.....	G. P. Cleveland.....	455,170	June 30	3151	799	55	1777
Plow. Rotary.....	J. Drader and A. B. McKay.....	459,714	Apr. 21	1657	399	55	339
Plow. Rotary.....	M. T. Hancock.....	463,047	Nov. 10	1304	338	57	813
Plow. Seeding-attachment.....	W. T. G. Cobb.....	460,176	Sept. 29	2572	611	56	1591
Plow. Shovel.....	T. E. Kersh.....	466,060	Dec. 29	3310	845	57	1806
Plow. Side-bill.....	N. Sanders and J. Buchanan.....	460,404	Sept. 29	2919	729	56	1656
Plow. Steam gang.....	N. L. Darling.....	454,206	June 16	1538	{ 404 405 }	55	1458
Plow-stock.....	J. L. O. King.....	455,462	July 7	257	65	56	52
Plow-stocks. Feet for.....	W. B. Brown.....	451,298	Apr. 28	2588	638	55	527

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Plow. Subsoil-.....	J. Mallon.....	453,887	June 9	1086	284	55	1362
Plow. Sulky-.....	G. A. Bishman.....	465,914	Dec. 29	3050	781	57	1755
Plow. Sulky-.....	F. A. Howard and J. H. Leonard.....	464,634	Dec. 8	960	237	57	1328
Plow. Sulky-.....	L. C. Jackson and J. F. Reiger.....	464,635	Dec. 8	960	238	57	1328
Plow. Sulky-.....	A. V. Rydler and H. G. Chamherlin.....	453,509	June 2	524	135	55	1216
Plow. Sulky-.....	W. Sobey.....	462,416	Nov. 3	318	78, 79	57	611
Plow. Sulky-.....	C. Thom and C. J. Bailey.....	462,935	Nov. 10	1151	298	57	782
Plow. Sulky-.....	C. E. Tower.....	462,265	Nov. 3	103	25	57	570
Plow. Sulky or riding.....	N. Swager.....	466,284	Dec. 29	3654	{ 934 935 }	57	1871
Plow. Three-wheel.....	M. Sattley.....	462,454	Nov. 3	372	92	57	621
Plow. Turn-.....	H. Thaden.....	458,121	Aug. 18	1942	505	56	917
Plow. Vineyard-.....	G. Moore.....	454,828	June 23	2517	648	55	1648
Plow-wheel.....	J. T. Bender.....	445,282	Jan. 27	2091	540	54	432
Plow. Wheel-.....	W. M. McCallister.....	463,535	Nov. 17	2083	548	57	971
Plow. Wheel-.....	P. W. Stanhope, Jr.....	447,647	Mar. 3	607	150	54	1232
Plow. Wheel-.....	M. Sughrue.....	465,329	Dec. 15	2105	538	57	1554
Plow. Wheel-.....	M. Trotman.....	457,625	Aug. 11	1145	{ 292 293 }	56	755
Plows. Corn-planting attachment for.....	F. Green.....	455,922	July 14	1003	261	56	201
Plows. Harrow attachment for.....	J. L. and A. C. Byers.....	457,808	Aug. 18	1440	374	56	821
Plows. Marker attachment for.....	J. D. Marley.....	457,653	Aug. 11	1178	302	56	762
Plows. Marking attachment for.....	F. Damish.....	463,946	Nov. 24	2754	714	57	1106
Plows, &c. Perforated blade for.....	V. Rhodes.....	447,437	Mar. 3	271	69	54	1169
Plows. Planter and fertilizer-distributing attachment for.....	W. S. Jones.....	445,852	Feb. 3	562	137	54	621
Plows. Potato-digging attachment for.....	A. Leonard.....	445,004	Jan. 20	1659	425	54	340
Plows. Subsoiling device for lister-.....	A. Lindgren.....	461,537	Oct. 20	1629	398	57	326
Plows. Weed attachment for.....	W. D. Crowell.....	449,465	Mar. 31	3586	903	54	1831
Plowshares, &c. Device for sharpening.....	G. H. Markillie.....	456,197	July 21	1413	375	56	288
Plug.....	E. B. and E. E. Saxton.....	452,721	May 19	2066	520	55	982
Plug and mechanism. Wash-basin.....	W. Bunting, Jr.....	447,863	Mar. 10	970	243	54	1309
Plug and socket cutter and chuck for the same.....	N. P. Stevens.....	447,048	Feb. 24	2530	628	54	1030
Plug. Safety.....	H. P. Ball.....	460,548	Oct. 6	3	1	57	3
Plumb and level.....	W. J. Garner and T. Connaughton.....	453,902	June 9	1103	{ 288 289 }	55	1365
Plumb and level.....	J. T. Welton, E. B. Andrus, and J. M. Pine.....	464,598	Dec. 8	904	222	57	1317
Plumbers' rounded corner-slabs. Machine for molding.....	W. H. Evans.....	463,144	Nov. 17	1473	{ 382 383 }	57	854
Plumber's shaving hook and scraper.....	C. H. Staehlin.....	455,129	June 30	3075	783	55	1763
Plumbers' slabs. Machine for molding circular and oval openings in.....	W. H. Evans.....	462,760	Nov. 10	854	{ 223 224 }	57	724
Plumber's-trap.....	J. Hartford.....	444,751	Jan. 13	1209	314	54	245
Plumbing. Sanitary.....	F. A. Weinsbank.....	452,818	May 26	2218	556	55	1020
Plunger press. Reboundng.....	T. J. Strait.....	449,601	Mar. 31	3788	951	54	1870
Plunger press. Reboundng.....	T. J. Strait.....	464,484	Dec. 1	731	179	57	1274
Plush fabrics. Manufacturing double-faced.....	F. Tonnar.....	451,743	May 5	464	{ 113 114 }	55	666
Pneumatic carrier.....	E. D. Leaycraft.....	451,619	May 5	266	64	55	630
Pneumatic carrier.....	G. Miles.....	462,266	Nov. 3	72	17, 18	57	565
Pneumatic dispatch-tube.....	D. Hunter.....	461,612	Oct. 20	1735	425	57	346
Pneumatic elevator and storage-station.....	L. Smith.....	446,029	Feb. 10	849	{ 206 207 }	54	685
Pneumatic motor.....	F. H. Richards.....	445,601	Feb. 3	127	33	54	536
Pneumatic motor.....	F. H. Richards.....	445,602	Feb. 3	128	33	54	536
Pneumatic signal.....	J. T. Pennycook.....	463,582	Nov. 17	2169	573	57	988
Pneumatic tool.....	F. H. Marsh.....	461,796	Oct. 20	2044	504	57	404
Pneumatic transmitter.....	A. B. Campbell.....	454,992	June 30	2839	722	55	1717
Pneumatic tube and motor.....	S. Benson.....	450,958	Apr. 21	2036	{ 502 503 504 }	55	410
Pneumatic-tube apparatus.....	M. Barri.....	452,471	May 19	1680	422	55	907
Pocket-book.....	A. Y. Andrews.....	445,216	Jan. 27	1995	514	54	414
Pocket-book.....	A. Y. Andrews.....	449,791	Apr. 7	233	59	55	47
Pocket-book.....	C. Joseph.....	445,373	Jan. 27	2218	575	54	459
Pocket-book.....	F. Lieker.....	449,709	Apr. 7	244	61	55	49
Pocket-book.....	F. Licker.....	458,235	Aug. 25	2130	552	56	959
Pocket-book-clasp.....	J. E. Ortner.....	455,850	July 14	897	236	56	181
Pocket-book fastening.....	B. Lehmann.....	452,039	May 12	934	240	55	763
Pocket-book frame.....	T. R. Weidemann.....	453,823	June 9	1006	262	55	1347
Pocket-books. Gusset-clasp for.....	D. M. Read.....	459,307	Sept. 8	1188	288	56	1305
Pocket-books. Gusset-clasp for.....	D. M. Read.....	459,308	Sept. 8	1189	289	56	1305
Pocket-books or other articles. Frame for.....	A. W. Schenber.....	466,262	Dec. 29	3618	926	57	1864
Pocket-books. Safety attachment for.....	E. D. Scott.....	463,169	Nov. 17	1516	394	57	862
Pocket-books. Safety device for.....	J. M. Lucas.....	451,829	May 5	584	144	55	690
Pocket-case.....	F. C. Avery.....	454,160	June 16	1471	366	55	1445
Pocket-guard and pen and pencil holder.....	M. Brewer.....	457,340	Aug. 11	702	180	56	669
Pocket implement. Combination.....	A. A. Low.....	464,138	Dec. 1	194	47	57	1174
Pocket implement. Combination.....	A. A. Low.....	464,139	Dec. 1	196	47	57	1174
Pocket implement. Combination.....	A. A. Low.....	464,140	Dec. 1	198	48	57	1174
Pocket implement. Combination.....	A. A. Low.....	464,141	Dec. 1	200	48	57	1175
Pocket-knife.....	D. W. Davis.....	455,610	July 7	507	132	56	98
Pocket-knife.....	R. H. Franklin.....	456,087	July 14	1240	325	56	244
Pocket-knife.....	C. Gerlach.....	456,811	July 28	2428	640	56	487
Pocket-knife.....	M. Kamak.....	455,625	July 7	530	139	56	102
Pocket-knife.....	J. Lütters.....	465,715	Dec. 23	2726	896	57	1683
Pocket-knife.....	W. Schmachtenberg.....	449,499	Mar. 31	3633	{ 914 915 }	54	1842
Pocket-knife.....	S. G. Scholz.....	458,664	Sept. 1	184	43	56	1100
Pocket-knife.....	K. M. Tata.....	453,296	June 2	177	49	55	1181
Pocket-knife.....	C. P. Thayer.....	445,509	Jan. 27	2417	631	54	496
Pocket-knife.....	J. Tollefson.....	464,6-1	Dec. 8	1037	260	57	1342
Pocket-knife.....	W. Vogel.....	448,168	Mar. 10	1447	370	54	1403

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & E.	Vol.	Page.
Pocket-knife and pencil-guard. Combined.	G. T. Drabble	444,094	Jan. 6	177	45	54	38
Pocket-knife and physician's scale. Combined	E. D. Miles	460,147	Sept. 29	2529	629	56	1581
Pocket-protector	L. F. Robare	451,197	Apr. 28	2429	600	55	495
Pocket receptacle. Coin-controlled.	C. P. Booth	465,814	Dec. 22	2874	736	57	1713
Point-band and cap	J. Shilling, Jr.	451,337	Apr. 28	2643	654	55	537
Poison. Distributing liquid.	M. J. Caswell	453,406	June 2	350	91	55	1213
Poison or fertilizer distributor	C. K. Foster	446,772	Feb. 17	2050	511	54	931
Poison or fertilizer distributor	G. E. Kephart	458,232	Aug. 25	2128	551	56	958
Poke. Animal.	W. P. Marquis	453,197	June 2	26	8	55	1154
Poke. Animal.	D. S. Morison	458,476	Aug. 25	2534	617	56	1034
Poke. Animal.	J. F. Phillips	450,525	Apr. 14	1332	327	55	262
Poker chip or counter holder.	A. K. Evans	451,722	May 5	427	103	55	660
Pole.	J. W. Knause	460,826	Oct. 6	453	115	57	91
Pole. Adjustable	S. A. Bartlett	463,471	Nov. 17	1992	521	57	954
Pole-coupling	W. R. Maxwell	444,247	Jan. 6	431	108	54	84
Pole fastening. Carriage.	H. Killam	455,946	July 14	1044	273	56	207
Pole. Peg.	T. Peterson	450,187	Apr. 14	790	200	55	160
Pole safety attachment. Vehicle.	H. W. Roberts	446,269	Feb. 10	1273	312	54	763
Pole-tip	J. O. Hebert	460,578	Oct. 6	56	13	57	13
Pole-tip	J. F. Kellogg	444,442	Jan. 13	720	189	54	150
Pole tip. Vehicle.	A. L. Kotze	465,792	Dec. 22	2840	727	57	1706
Pole tip. Vehicle.	H. P. Richards	461,163	Oct. 13	941	243	57	187
Pole. Vehicle.	H. L. Kingsley	461,190	Oct. 13	988	253	57	196
Pole. Vehicle.	T. McMaster	462,058	Oct. 27	2452	607	57	402
Pole. Vehicle.	F. L. Sattley	458,728	Sept. 1	275	66	56	1118
Pole. Vehicle.	G. White	456,181	July 21	1385	367	56	282
Poles. Detachable step for	V. Thomas	459,844	Sept. 22	2060	518	56	1487
Police-baton	C. Schwend	450,258	Apr. 14	921	228	55	183
Police-signal system	N. B. Cregier	462,808	Nov. 10	934	{ 243 244 }	57	741
Polish-rod adjuster.	E. W. Bisett	462,390	Nov. 3	278	69	57	603
Polishing-cone	A. T. Good	449,217	Mar. 31	3141	792	54	1750
Polishing-machine	J. B. Bennett	452,632	May 19	1923	483	55	954
Polishing-machine	A. P. Boardman	445,030	Jan. 30	1688	434	54	346
Polishing-machine	C. S. Leonard	450,709	Apr. 21	1651	397	55	338
Polishing-machine	H. Trost	449,059	Mar. 24	2892	734	54	1695
Polishing-machine. Sand	J. D. Wilson and W. J. Delano	462,185	Oct. 27	2653	664	57	530
Polishing-wheel	A. R. Yates	463,129	Nov. 10	1451	375	57	342
Pool-ball frame.	W. A. Sweet	464,745	Dec. 8	1147	{ 284 285 }	57	1362
Pool-table	W. H. Violett	451,536	May 5	137	34, 35	55	605
Pool-tables. Electric game-register for	C. A. Erikson	466,058	Dec. 29	3308	845	57	1805
Pop-corn-balling machine	W. Frear	451,119	Apr. 28	2276	563	55	467
Portable boiler	C. L. Weeden	461,788	Oct. 20	2027	500	57	401
Portable elevator	N. Anderson	449,026	Mar. 24	2843	723	54	1686
Portable elevator and wagon-unloader	R. S. Kirkpatrick	449,447	Mar. 31	3555	{ 895 896 }	54	1826
Portable furnace	N. T. Edson	452,118	May 12	1089	277	55	787
Portable house.	H. W. Baker	444,604	Jan. 13	976	253	54	202
Portable house.	C. F. Hodsdon	456,307	July 21	1590	420	56	321
Portable house.	C. H. Leonard	451,733	May 5	442	107	55	663
Portable table.	P. J. Brennan	445,159	Jan. 27	1906	492	54	396
Post:							
See Binding-post.	Metal post.						
Clothes-line-sup-	Metallic post.						
porting post.	Telegraph or other post.						
Fence-post.	Tool-post.						
Hitching-post.							
Post-anchor	G. W. Stites and J. W. Halsey	445,457	Jan. 27	2340	608	54	482
Post-drill frame	A. Walker	463,469	Nov. 17	1989	521	57	953
Post-driver	J. McLandsborough	448,140	Mar. 10	1404	359	54	1394
Post-driver	E. P. Rogers	456,163	July 21	1359	361	56	277
Post-office box and pigeon-hole.	A. F. Demorest	461,324	Oct. 13	1204	307	57	241
Post-office box. Electric.	W. A. M. and R. T. F. Smith	455,126	June 30	3072	782	55	1762
Post-office cabinet.	P. J. Ramion	451,436	Apr. 28	2791	690	55	565
Post-office indicator	H. B. Winter	447,803	Mar. 10	875	218	54	1290
Post-office lock-box	M. Jackson	449,936	Apr. 7	434	109	55	85
Post-hole-boring machine	C. Allen	459,262	Sept. 8	1119	273	56	1290
Post-hole digger	F. E. Kohler	456,655	July 28	2166	574	56	439
Post-hole digger	J. H. Sumser	456,170	July 21	1367	363	56	279
Posts, poles, &c. Manufacture of	J. S. Seaman	466,012	Dec. 29	3232	{ 823 824 }	57	1789
Postal-card machines or the like. Banding device for.	W. H. Bunce	465,653	Dec. 22	2640	673	57	1666
Postal. Sealed reply	E. A. Dubey	448,478	Mar. 17	1982	{ 497 498 }	54	1513
Pot:							
See Chocolate-pot.	Paint-pot.						
Coffee-pot.	Paste-pot.						
Coffee or tea pot.	Slag-pot.						
Dash-pot.	Tea-pot.						
Flower-pot.	Tea or coffee pot.						
Marking-pot.	Transplanting-pot.						
Potato-bug destroyer	W. Snobble	461,551	Oct. 20	1646	402	57	330
Potato-digger	J. Childs	455,304	July 7	13	3	56	5
Potato-digger	J. W. Cook	463,943	Nov. 24	2750	713	57	1105
Potato-digger	J. M. Fallis	463,661	Nov. 24	2309	606	57	1022
Potato-digger	J. F. Fowler	450,008	Apr. 7	535	133	55	104
Potato-digger	A. Larson	451,329	Apr. 28	2633	651	55	535
Potato-digger	D. B. Merrell	449,127	Mar. 31	3005	760	54	1726
Potato-digger	A. C. Prentice and C. M. Fuller	456,430	July 21	1803	{ 476 477 }	56	360
Potato-digger	W. E. Roche	454,919	June 30	2692	689	55	1689
Potato-digger	F. L. Senour	448,551	Mar. 17	2082	522	54	1533
Potato-digger	P. D. Smith	445,206	Jan. 27	1977	511	54	410

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Potato-digger	C. Wright	445,868	Feb. 3	585	143	54	626
Potato digger and harvester	C. Lanker	453,909	June 9	1114	{ 291 292 }	55	1367
Potato-masher	J. S. Blian	456,937	Aug. 4	11	3	56	535
Potato-picker	J. F. Wunkoop	455,557	July 7	418	111	56	81
Potat. separating and assorting machine	H. M. Keith	448,434	Mar. 17	1914	481	54	1501
Potential-indicator	C. E. Kammeyer	464,025	Dec. 1	33	9	57	1142
Potential indicator	E. Weston	444,803	Jan. 13	1286	334	54	259
Potters' pins. Machine for cutting	J. H. Mountford	450,179	Apr. 14	780	197	55	158
Potters' use. Manufacture of pins for	C. W. Donaghue	452,435	May 19	1610	400	55	896
Pottery. Apparatus for forming articles of	D. Chapman	461,111	Oct. 13	865	{ 222 223 }	57	174
Pottery-kiln	J. McCloskie	457,465	Aug. 11	895	231	56	706
Pottery-ware. Applying lithographic impressions to	J. and E. A. Ridgway	444,898	Jan. 20	1478	.....	54	305
Pottery-ware. Decorating	B. Booth	452,254	May 12	1310	.....	55	830
Poultry. Means for killing	G. Emerson	462,117	Oct. 27	2551	633	57	510
Poultry-plucking machine	I. G. Mellinger	456,201	July 21	1417	376	56	288
Powder:							
See Bating-powder. Perspiration-powder.							
Powder-blower	E. Ludde	459,915	Sept. 22	2182	548	56	1508
Powder-distributor	M. C. Barden	447,175	Feb. 24	2755	681	54	1072
Powder-distributor	W. D. McCann	462,986	Nov. 10	1220	318	57	796
Powder-kegs. Safety-cap for	W. Mahoney	456,494	July 21	1897	501	56	378
Power:							
See Baling-press power. Motive power.							
Cable-power. Ratchet hand-power.							
Churn-power. Tide and wave power.							
Horse-power. Wave-power.							
Mechanical power. Weight-power.							
Power-brake. Electric	C. V. Greenamyer	458,249	Aug. 25	2153	527	56	963
Power by means of compressed air. Apparatus for transmitting	C. Cummings	456,941	Aug. 4	18	4, 5, 6	56	536
Power-converter	I. Shoudy, Jr.	455,009	June 30	2873	730	55	1723
Power. Electrical transmission of	H. W. Leonard	463,802	Nov. 24	2514	657	57	1061
Power-machine	M. Glassbrook and N. Emmer	446,862	Feb. 24	2205	548	54	971
Power-machine	J. J. Otto	458,695	Sept. 1	231	55	56	1109
Power-machine	J. R. Vandervoort	464,807	Dec. 8	1241	310	57	1380
Power. Means for transmitting	J. Meier	457,206	Aug. 4	430	112	56	614
Power-press	F. Grotenrath	462,485	Nov. 3	417	101	57	629
Power-press	A. A. Rheutan	457,132	Aug. 4	300	79	56	591
Power-press	N. C. Stiles	459,597	Sept. 15	1669	417	56	1404
Power-press. Tilting-frame	F. M. Leavitt	451,223	Apr. 28	2459	608	55	500
Power-shipping mechanism	S. Leticq	447,334	Mar. 3	83	23	54	1134
Power transmitting and absorbing device	R. Snyers	458,257	Aug. 25	2163	530	56	966
Power-transmitting device	O. Braun	466,114	Dec. 29	3381	864	57	1819
Power-transmitting device	E. H. Johnson	450,743	Apr. 21	1690	409	55	345
Power-transmitting device	T. Scheffler	448,575	Mar. 17	2122	{ 531 532 }	54	1541
Power-transmitting device	C. B. Wattles	452,444	May 19	1623	{ 403 404 }	55	898
Power-transmitting device	C. B. Wattles	452,445	May 19	1626	{ 404 405 }	55	898
Power-wrench	J. R. Robinson	452,237	May 12	1276	322	55	824
Precious metals from their ores. Leaching-vat for separating	D. Deanes	463,120	Nov. 10	1435	371	57	839
Precious metals. Separator for the	W. C. Van Horn	448,098	Mar. 10	1344	343	54	1381
Precious or other stones. Machine for hollowing	H. Sulzer and A. Schmidt	450,644	Apr. 21	1553	{ 373 374 }	55	320
Preserve-jar	H. L. Martyn and W. D. Lednum	450,827	Apr. 21	1835	415	55	372
Preserve-jar	A. Stelzner	447,479	Mar. 3	357	89	54	1185
Preserving apparatus	L. Bregha	457,471	Aug. 11	908	232	56	708
Preserving bivalves	A. A. Freeman	453,144	May 26	2755	694	55	1123
Preserving compound	J. M. and T. J. Gilliban	460,861	Oct. 6	499	.....	57	99
Press:							
See Baling-press. Finisher-press.							
Book-binder's press. Harness-loop press.							
Brick-press. Hay-press.							
Broom-press. Horse-power press.							
Cable-covering press. Hydraulic press.							
Cake-press. Mattress-press.							
Cheese-press. Oil-press.							
Cider-press. Oil or similar press.							
Copying-press. Pad-press.							
Cotton-press. Plunger-press.							
Die-press. Power-press.							
Double-action press. Printing-press.							
Drawing or stamping press. Raisin and fig press.							
Drill-press. Screw-press.							
Embossing and printing press. Shaping-press.							
Filter-press. Sheet-metal-drawing press.							
Tile-press.							
Press	V. D. Anderson	464,599	Dec. 8	906	222	57	1318
Press	V. D. Anderson	464,600	Dec. 8	906	{ 222 223 }	57	1318
Press	T. J. Ashby and A. D. Melton	461,304	Oct. 13	1176	300	57	235
Press	A. N. Peters	451,662	June 23	2258	520	55	1599
Press	C. H. Weston	458,650	Sept. 1	163	38	56	1097
Press-board	S. K. Hibler	454,477	June 23	1950	508	55	1544
Press-delivery apparatus	S. G. Goss	449,156	Mar. 31	3046	{ 769 770 }	54	1733
Press-gear	C. L. Stanley	459,316	Sept. 8	1200	292	56	1707
Presses. Automatic feed attachment for	M. Jacobs	458,904	Sept. 1	559	136	56	1172

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Presses. Automatic frisket for hand.....	L. D. Clark	464,856	Dec. 8	1303	{ 326 327	57	1394
Pressing, sheet-tying, smashing, and tableting machine. Dry.....	J. W. Jones	452,898	May 26	2347	{ 593 594 595	55	1044
Pressure brake. Fluid.....	J. W. Bowers.....	450,610	Apr. 21	1459	{ 358 359	55	294
Pressure brake. Fluid.....	E. B. Dennison	458,101	Aug. 18	1913	497	56	912
Pressure-equalizer	C. C. Worthington	451,148	Apr. 28	2332	519	55	477
Pressure-gage	J. P. Marsh	448,449	Mar. 17	1940	488	54	1506
Pressure-gage	T. A. Masters	464,576	Dec. 8	872	215	57	1311
Pressure-gage	M. McNeil	445,355	Jan. 27	2198	570	54	455
Pressure machine. Circular.....	J. W. Conlras	453,740	June 9	883	{ 229 230	55	1323
Pressure-reducer for steam or other fluids.....	E. C. Fasoldt	449,071	Mar. 24	2909	738	54	1698
Pressure-regulator	R. W. F. Abbé	444,082	Jan. 6	160	40	54	34
Pressure-regulator	E. C. Fasoldt	466,275	Dec. 29	3638	{ 930 931	57	1868
Pressure-regulator	N. C. Locke	448,443	Mar. 17	1931	486	54	1504
Pressure-regulator	J. H. Werner and S. Flory	465,956	Dec. 29	3115	797	57	1767
Pressure-regulator. Fluid.....	J. Acton	444,263	Jan. 6	451	114	54	89
Pressure-regulator. Fluid.....	T. and J. McNeil and H. Merrie	457,056	Aug. 4	182	45	56	568
Pressure-regulator. Gas.....	W. Threlkeld	455,478	July 7	280	71, 72	56	57
Pressure-reservoirs. Head for	J. W. Hyatt	445,180	Jan. 27	1939	501	54	403
Primary battery	W. Hanson	452,303	May 12	1378	342	55	842
Print or picture. Indelible	J. R. France	458,020	Aug. 18	1795	56	897	
Printed sheets of paper. Apparatus for finishing.....	G. Duncan and J. Salmon	445,938	Feb. 3	691	168	54	648
Printer's-case stand	R. Mercer	461,360	Oct. 13	1270	322	57	253
Printer's chase	H. P. Feister	451,923	May 12	745	187	55	726
Printer's chase	W. P. Harding	449,851	Apr. 7	317	82	55	63
Printer's chase	E. Heffelfinger	464,070	Dec. 1	97	25	57	1156
Printers' forms. Lock-up mechanism for	J. E. Horning and E. D. Clapp	454,047	June 16	1303	{ 339 340	55	1413
Printer's furniture	A. T. Thayer	455,070	June 30	2986	760	55	1746
Printer's furniture	A. T. Thayer	462,960	Nov. 10	1183	307	57	768
Printer's gage-pin	J. W. Eggleston	458,562	Sept. 1	23	5	56	1070
Printer's galley	C. Horne	465,931	Dec. 29	3070	787	57	1760
Printer's galley lock	H. H. Proctor and A. C. Mailer	445,901	Feb. 3	632	155	54	636
Printer's leads. Machine for shaving	G. Damon and E. S. Peets	454,153	June 16	1463	384	55	1443
Printer's press-guide	J. G. and J. A. Boehringer	447,293	Mar. 3	15	5	54	1121
Printer's quoin	J. E. Baker	464,658	Dec. 8	1001	250	57	1336
Printer's quoin	G. Milliken	458,426	Aug. 25	2454	597	56	1019
Printer's quoin	E. P. Mowers	459,071	Sept. 8	822	200	56	1232
Printer's quoin	W. Wickersham	451,990	May 12	848	217	55	747
Printer's quoin	W. Wickersham	453,226	June 2	68	18	55	1161
Printer's quoin	W. Wickersham	456,245	July 21	1494	397	56	302
Printer's quoin	A. B. Wilson	457,501	Aug. 11	961	243	56	719
Printers' rollers. Apparatus for making	L. K. Bingham	444,206	Jan. 6	369	92	54	74
Printers' rollers. Apparatus for making	L. K. Bingham	456,876	July 28	2542	667	56	507
Printers' rollers. Apparatus for molding	O. J. Maigne and M. E. Reilly	453,196	June 2	25	8	55	1154
Printers' rules. Method of and machine for making	W. B. Fish	458,531	Aug. 25	2621	638	56	1051
Printer's take-marker or galley attachment	B. W. Gillis	459,397	Sept. 15	1346	337	56	1344
Printers' use. Imposition-furniture for	R. Clarke	458,886	Sept. 1	534	130	56	1167
Printing and adding machine. Check.....	C. W. Weiss	457,140	Aug. 4	313	82	56	593
Printing and adding machine. Check.....	C. W. Weiss	458,203	Aug. 25	2072	{ 536 537	56	948
Printing and adding numbers. Apparatus for	G. B. Massey	446,261	Feb. 10	1259	{ 307 308 607	54	760
Printing and binding machine	H. P. Feister	452,933	May 26	2403	{ 608 609 112	55	1054
Printing and registering machine. Ticket.....	J. A. Milliken	457,207	Aug. 4	431	113	56	614
Printing apparatus. Color.....	T. Bickford	456,466	July 21	1856	490	56	370
Printing apparatus. Ticket.....	J. Dyer and C. O. Malmgren	464,194	Dec. 1	2-8	70, 71	57	1189
Printing. Blanket washing and cleaning machine for calico.....	E. A. Rusder	460,353	Sept. 29	2851	710	56	1644
Printing carpet-yarns. Apparatus for	W. Shaw	446,299	Feb. 10	1324	323	54	774
Printing-cylinders. Pantograph-machine for tracing designs upon	J. Hope, Jr.	450,153	Apr. 14	750	190	55	152
Printing device	J. S. Foley	448,219	Mar. 17	1547	{ 395 396	54	1431
Printing device	H. F. Rockey	446,929	Feb. 24	2331	578	54	993
Printing device. Chromatic.....	P. J. Bobo	461,792	Oct. 20	2033	501	57	402
Printing device for registering mail-boxes	E. W. Morton	461,362	Oct. 13	1273	{ 323 324	57	254
Printing device. Hand	T. G. Saxton	448,264	Mar. 17	1622	414	54	1445
Printing fabrics. Machine for	E. and A. Samuel	453,362	June 2	281	75	55	1200
Printing, folding, and cutting machine. Web	W. Scott	458,350	Aug. 25	2331	569	56	997
Printing from collotype or photo-gelatine plates. Machine for	W. C. Hawkins	454,268	June 16	1628	427	55	1475
Printing from wood. Mechanism for	J. H. Auble and J. F. Hornberger	455,379	July 7	130	34	56	29
Printing in colors	W. Schumacher	447,087	Feb. 24	2586	54	1041	
Printing in colors	W. Schumacher	447,701	Mar. 3	650	54	1247	
Printing in colors. Apparatus for	H. S. Brooks	444,231	Jan. 6	408	101	54	81
Printing in colors. Device for	W. J. Buchanan	460,461	Sept. 29	2998	751	56	1671
Printing in colors. Method of and machine for	F. Tiquet	457,942	Aug. 18	1675	{ 438 439	56	865
Printing lamp-shades and analogous articles. Type for	T. Harper	453,772	June 9	934	{ 242 243	55	1333
Printing lamp-shades. Type for	T. Harper	453,770	June 9	932	242	55	1332
Printing lamp-shades. Type for	T. Harper	453,771	June 9	933	242	55	1333
Printing lamp-shades. Type for	T. Harper	454,868	June 30	2586	664	55	1668
Printing-machine	H. G. Bender. (Reissue)	11,193	Sept. 22	2453	613	56	1561

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr.-g.	Vol.	Page.
Printing-machine	C. B. Cottrell	448,775	Mar. 24	2463	{ 616 617	54	1613
Printing-machine	C. B. Cottrell	453,757	June 9	909	{ 236 237	55	1327
Printing-machine	C. B. Cottrell	453,758	June 9	912	{ 237 238	55	1328
Printing-machine	T. Harper	453,773	June 9	936	{ 243 244	55	1333
Printing-machine	E. Lietze	444,412	Jan. 6	675	{ 175 176	54	133
Printing-machine	T. McDowell	456,368	July 21	1688	{ 441 445	56	339
Printing-machine	A. W. Vaughn	453,988	June 9	1224	318	55	1390
Printing-machine. Bag	J. J. Kelly	455,404	July 7	167	{ 43, 44	56	36
Printing-machine. Block	G. E. Hamblet	452,038	May 12	932	{ 238 239	55	762
Printing-machine. Card	J. Jordan	449,420	Mar. 31	3511	884	54	1818
Printing-machine. Chromatic	C. W. Dickinson	448,807	Mar. 24	2512	629	54	1622
Printing-machine. Chromatic	J. Michaud	449,128	Mar. 31	3007	{ 760 761	54	1726
Printing-machine delivery mechanism. Web	L. C. Crowell	453,407	June 2	351	{ 91 92 93 94	55	1214
Printing-machine gripper mechanism	J. T. Hawkins, W. S. Huson, and W. B. Yates	457,715	Aug. 11	1277	{ 330 331	56	781
Printing-machine having means for preventing off- set. Perfecting	J. T. Hawkins	445,058	Jan. 20	1742	{ 448 449	51	356
Printing-machine inking mechanism	L. C. Crowell	453,408	June 2	364	{ 94, 95	55	1215
Printing-machine inking mechanism	A. Fayol	448,749	Mar. 24	2429	607	54	1606
Printing-machine. Multicolor	J. T. Hawkins	445,059	Jan. 20	1743	449	54	356
Printing-machine. Multicolor	F. F. W. Oldfield	457,663	Aug. 11	1197	{ 306 307	56	765
Printing-machine. Perfecting	R. M. Hunter	449,446	Mar. 31	3552	{ 894 895	54	1825
Printing-machine. Plate	H. Lee	458,694	Sept. 1	229	54	56	1109
Printing-machine. Rotary chromatic	J. T. Hawkins	456,539	July 21	1974	520	56	333
Printing-machine sheet-delivery mechanism	S. D. Tucker	465,119	Dec. 15	1773	448	57	1491
Printing-machine sheet-guide	S. Whitlock	466,055	Dec. 29	3303	{ 843 844	57	1804
Printing-machine. Stop-cylinder	J. Michaud	455,901	July 14	972	254	56	195
Printing-machine. Ticket	G. B. Massey	445,251	Jan. 27	2047	{ 526 527 528	51	423
Printing-machine. Ticket	G. B. Massey	445,651	Feb. 3	211	{ 56 57 58	54	554
Printing-machine. Two-color	J. T. Hawkins	445,017	Jan. 20	1673	430	54	343
Printing-machine. Web	L. C. Crowell	446,829	Feb. 17	2140	{ 531 532 533	54	950
Printing-machine. Web	L. C. Crowell	452,693	May 19	2017	505	55	973
Printing-machines. Automatic feeding apparatus for	W. F. Kidney	455,020	June 30	2886	{ 733 734	55	1726
Printing-machines. Cutting and switching mechan- ism for web	J. H. Stonemetz	452,243	May 12	1288	323	55	827
Printing-machines. Cutting and switching mechan- ism for web	J. H. Stonemetz	452,244	May 12	1290	324	55	827
Printing-machines. Feeding apparatus for	C. B. Cottrell	466,030	Dec. 29	3262	832	57	1795
Printing-machines. Ink-fount for	S. Whitlock	466,314	Dec. 29	3703	{ 945 946	57	1880
Printing-machines. Inking apparatus for	C. B. Cottrell	455,897	July 14	965	252	56	194
Printing-machines. Paperfeeding and cutting mech- anism for	W. Scott	444,138	Jan. 6	364	63	54	54
Printing-machines. Plate-holder for	J. T. Hawkins	453,862	June 9	1050	275	55	1356
Printing-machines. Printing attachment for the de- liver mechanism of web	L. C. Crowell	452,598	May 19	1863	469	55	942
Printing-machines. Sheet-delivery apparatus for	C. B. Cottrell	451,168	Apr. 28	2361	587	55	484
Printing-machines. Sheet-transfer apparatus for	J. T. Hawkins	445,018	Jan. 20	1675	430	54	343
Printing of textile fabrics. Doctor employed in the	J. Archer	447,126	Feb. 24	2645	656	54	1052
Printing-office apparatus	J. L. Knight	449,223	Mar. 31	3149	794	54	1752
Printing on rollers. Press for	G. H. Allen	460,172	Sept. 29	2567	640	56	1590
Printing peripheries of spools and other circular bodies. Machine for	I. C. Davis and J. Brown	452,598	May 19	1869	470	55	943
Printing-plate	J. Mullaly and L. L. Bullock	459,239	Sept. 8	1087	265	56	1284
Printing-plates. Bed for metallic	W. MacKay	456,502	July 21	1909	505	56	381
Printing-plates. Securing device for zinc	E. S. Jones	455,428	July 7	212	54	56	43
Printing-press	H. Breuer	457,251	Aug. 4	508	134	56	628
Printing-press	J. L. Cox	459,813	Sept. 22	2012	505	56	1176
Printing-press	J. L. Cox	464,857	Dec. 8	1306	327	57	1394
Printing-press	D. I. Eckerson	457,186	Aug. 4	389	{ 100 101 102	56	607
Printing-press	G. P. Fenner	452,698	May 19	2025	507	55	974
Printing-press	G. P. Fenner	455,664	July 7	594	156	56	115
Printing-press	W. H. Golding	451,681	May 5	362	{ 89, 90	55	648
Printing-press	S. G. Goss	461,189	Oct. 13	9-5	{ 252 253	57	195
Printing-press	J. M. Jones	450,368	Apr. 14	1105	270	55	217
Printing-press	W. B. Lawrence	447,491	Mar. 3	379	{ 92, 93	54	1189
Printing-press	C. B. Maxson and G. P. Fenner	457,286	Aug. 4	567	{ 150 151	56	638

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Printing-press	W. Scott. (Reissue)	11,166	May 12	1474	365	55	861
Printing-press	W. J. Shea	464,110	Dec. 1	155	38	57	1167
Printing-press	J. H. Stonemetz	465,632	Dec. 22	2609	{ 663 664 }	57	1659
Printing-press	H. Swain	463,997	Nov. 24	2842	736	57	1123
Printing-press	H. Swain	464,485	Dec. 1	732	179	57	1274
Printing-press	A. G. Ward and B. F. Wickwire	464,052	Dec. 1	64	18	57	1149
Printing-press	R. P. Winters	455,377	July 7	126	33, 31	56	28
Printing-press attachment	M. N. and L. E. Tomblin	452,491	May 19	1703	428	55	911
Printing-press. Chromatic	A. Fayol	447,507	Mar. 3	399	97, 98	54	1193
Printing-press. Chromatic	J. C. Kellberg	450,369	Apr. 14	1106	{ 270 271 }	55	218
Printing-press. Cylinder	J. Brooks	455,386	July 7	142	36, 37	56	31
Printing-press. Cylinder	D. M. Somers	454,776	June 21	2423	622	55	1633
Printing-press delivery apparatus	S. G. Goss	459,961	Sept. 22	2239	562	56	1519
Printing-press delivery mechanism	J. L. Cox	464,923	Dec. 8	1395	352	57	1411
Printing-press delivery mechanism	D. I. Eckerson	457,187	Aug. 4	392	{ 102 103 }	56	607
Printing-press feed-gage	W. Bartlett	452,022	May 12	898	230	55	756
Printing-press feed-gage	E. L. McGill	449,290	Mar. 31	3262	827	54	1772
Printing-press feed mechanism	D. I. Eckerson	457,188	Aug. 4	395	103	56	608
Printing-press feeder	T. R. Johnston	462,136	Oct. 27	2574	{ 640 641 642 }	57	515
Printing-press gage	W. E. Norris	463,641	Nov. 24	2275	599	57	1017
Printing-press grip	B. H. Bowman	452,745	May 19	2108	530	55	989
Printing-press. Hand	G. Brown	463,118	Nov. 10	1432	370	57	838
Printing-press. Hand	B. B. Hill	451,971	May 12	815	207	55	740
Printing-press ink-distributor	L. Haviland	455,206	June 30	3211	815	55	1789
Printing-press ink-fountain protector	T. D. Hooper	462,352	Nov. 3	216	52	57	592
Printing-press inking apparatus	T. W. Kelley	463,864	Nov. 24	2625	684	57	1082
Printing-press inking device	H. F. Bechman	447,021	Feb. 24	2479	617	54	1020
Printing-press inking mechanism	J. Brooks	455,385	July 7	140	36	56	31
Printing-press. Oscillating-cylinder	W. Scott	456,741	July 28	2318	{ 612 613 }	56	467
Printing-press. Plate	F. H. Allen	445,150	Jan. 27	1895	489	54	395
Printing-press. Plate	G. C. Howard	446,635	Feb. 17	1837	{ 455 456 }	54	889
Printing-press. Plate	A. B. Schofield	465,000	Dec. 15	1562	397	57	1453
Printing-press sheet-delivery	C. B. Maxson	458,059	Aug. 18	1852	{ 482 483 }	56	898
Printing-press sheet-delivery apparatus	C. B. Cottrell	456,669	July 28	2188	{ 579 580 }	56	443
Printing-press traveling cylinder	J. H. Stonemetz	465,634	Dec. 22	2613	{ 665 666 }	57	1660
Printing-press. Web	W. Scott	446,696	Feb. 17	1934	482	54	907
Printing-presses. Adjustable holder for inking-rollers of	A. J. Ford	457,152	Aug. 4	335	86	56	598
Printing-presses. Adjustable holder for inking-rollers of	J. H. Vivian	457,139	Aug. 4	311	82	56	593
Printing-presses. Automatic feeder for	J. H. Ballard	462,524	Nov. 3	472	{ 115 116 }	57	641
Printing-presses. Back-up motion for	J. H. Cranston	448,938	Mar. 24	2709	683	54	1660
Printing-presses. Cutting and feeding mechanism for	J. Brooks	456,191	July 21	1403	372	56	286
Printing-presses. Cutting and feeding mechanism for	W. Scott	444,137	Jan. 6	261	62, 63	54	53
Printing-presses. Cylinder for rotary	S. G. Goss	461,188	Oct. 13	984	252	57	195
Printing-presses. Feed-gage for	E. L. McGill	449,909	Apr. 7	398	100	55	78
Printing-presses, folding-machines, &c. Feeding paper to	A. J. Dear	452,024	May 12	900	231	55	756
Printing-presses. Ink-roller-lifting device for cylinder	M. W. Fisher	451,372	Apr. 28	2688	667	55	545
Printing-presses. Inking apparatus for	C. C. Small	464,044	Dec. 1	55	15	57	1147
Printing-presses. Jogging device for	H. F. Bowers	457,248	Aug. 4	503	133	56	627
Printing-presses. Mechanism for cutting or perforating variable lengths of paper web for	J. Brooks	456,190	July 21	1399	{ 371 372 373 }	56	285
Printing-presses. Offset mechanism for	W. Scott	463,844	Nov. 24	2581	{ 671 672 673 }	57	1074
Printing-presses. Paper-cutting mechanism for	L. E. Brookes	448,806	Mar. 24	2508	{ 628 629 }	54	1621
Printing-presses. Perforating attachment for	G. H. Slocum	454,231	June 16	1571	414	55	1464
Printing-presses. Perforating attachment for	G. H. Slocum and W. J. Gamble	454,232	June 16	1573	414	55	1464
Printing-presses. Registering attachment for job	G. W. Shedden	456,439	July 21	1413	480	56	362
Printing-presses. Registering device for	J. Brooks	447,536	Mar. 3	444	109	54	1201
Printing-presses. Rotary ink-fountain for	J. L. Cox	463,103	Nov. 10	1404	363	57	833
Printing-presses. Sheet-deliverer for	J. King	463,839	Nov. 24	2571	670	57	1073
Printing-presses. Stone-protector for lithographic	J. Eberle	448,642	Mar. 24	2251	{ 564 565 }	54	1572
Printing-presses. Stopping and reversing mechanism for	W. Scott	459,939	Sept. 22	2214	556	56	1515
Printing-presses. Stopping and reversing mechanism for	W. Scott	460,994	Oct. 13	704	182	57	141
Printing-presses. Web-roller for	J. L. Cox	457,255	Aug. 4	515	135	56	629
Printing-roller. Hand	G. H. Allen	460,173	Sept. 29	2568	640	56	1590
Printing-rollers. Producing cylindrical	D. J. Murnane and F. W. Drosten	445,932	Feb. 3	678	166	54	644
Printing-surface	E. S. Holmes, Jr.	464,968	Dec. 15	1486	13	57	1439
Printing-surfaces. Machine for producing	F. A. Johnson and W. E. Crane	445,539	Feb. 3	50	{ 13 14 15 }	54	521
Printing-surfaces. Producing copper or other like	J. G. Garrison	460,635	Oct. 6	163	41	57	35
Printing wood signs. Press for	H. D. Beach and G. F. Palm	460,929	Oct. 6	608	154	57	118
Pritch	W. H. Redford	456,431	July 21	1804	477	56	360

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Privy-vault.	A. Lister	447,572	Mar. 3	497	122	54	1210
Privy-vaults. Combined air-trap and seat for	C. Kelley	465,862	Dec. 29	2957	755	57	1737
Privy-vaults. Construction of	T. W. Carrico	445,848	Feb. 3	557	136	54	620
Projectile	A. Martin	462,570	Nov. 3	554	135	57	657
Projectile	A. Mig	463,528	Nov. 17	2069	544	57	968
Projectile	P. G. Russell	463,922	Nov. 24	2718	706	57	1099
Projectile	E. Sherlock and J. McIntyre	459,417	Sept. 15	1380	346	56	1350
Projectile	C. Tunncliffe	451,088	Apr. 28	2230	552	55	457
Projectile for ordnance.	G. R. Elliott	452,567	May 19	1818	457	55	933
Projectile for ordnance. Explosive	J. J. Moore	446,975	Feb. 24	2400	597	54	1006
Projectile. Self propelling	J. E. Bott	466,056	Dec. 29	3305	844	57	1805
Projectile with frangible cap	G. R. Wilson, Jr	445,230	Dec. 15	1941	494	57	1524
Projectiles or shells and apparatus therefor. Hardening or tempering	A. Anderson	461,698	Oct. 20	1880	467	57	375
Projectiles or shells. Manufacture of hollow	R. Low	447,690	Mar. 3	662	{ 164 165 166 }	54	1243
Prop.	J. K. Woodward	456,263	July 21	1521	404	56	308
Propeller	B. W. Fellows	462,897	Nov. 10	1083	281	57	769
Propeller	D. W. Horton	454,272	June 16	1633	429	55	1476
Propeller	C. F. Littlejohn	457,513	Aug. 11	974	{ 248 249 }	56	721
Propeller	J. T. Marsh and T. S. Truss	450,417	Apr. 14	1180	288	55	232
Propeller	O. Seemiller	446,697	Feb. 17	1937	463	54	907
Propeller and steerer. Combined.	W. Mueller	462,572	Nov. 3	556	{ 135 136 }	57	657
Propeller. Boat.	C. E. Fox	452,467	May 19	1673	419	55	906
Propeller for boats	L. Gillespie	451,731	May 5	439	106	55	662
Propeller. Screw	A. H. Morris	464,033	Dec. 1	41	11	57	1144
Propeller. Screw	J. W. Morton	463,968	Nov. 24	2690	700	57	1094
Propeller. Screw	J. H. Osborne	453,361	June 2	279	74	55	1200
Propeller. Screw	M. G. Pool	449,862	Apr. 7	330	84	55	66
Propeller. Screw	G. Rooke	464,898	Dec. 8	1365	343	57	1405
Propeller. Screw	B. F. and M. F. Sparr	445,864	Feb. 3	540	141	54	625
Propeller. Screw	M. F. and B. F. Sparr	463,322	Nov. 17	1754	450	57	907
Propeller. Vessel.	O. J. B. Boesclager	449,996	Apr. 7	523	130	55	101
Propeller. Vessel.	G. Toliver	451,086	Apr. 28	2228	551	55	457
Propellers. Device for raising and lowering	A. Weed and J. Rockwell	444,475	Jan. 13	774	201	54	162
Propellers. Jury-shaft for	T. P. C. Halsey	455,964	July 14	1071	260	56	212
Propelling and steering boats.	J. W. Williams	461,408	Dec. 1	622	153	57	1252
Propelling and steering vessels. Apparatus for	M. O. Parker	450,677	Apr. 21	1605	386	55	330
Propelling apparatus	E. G. Smith	453,217	June 2	55	15	55	1159
Propelling apparatus for vessels	J. Wirth	448,810	Mar. 24	2515	630	54	1623
Propelling boats. Apparatus for	F. Bätjer	448,771	Mar. 24	2459	615	54	1612
Propelling boats by electricity. Means for	O. Büsser	464,955	Dec. 15	1464	369	57	1435
Propelling boats. Device for	B. B. Pease	453,704	June 9	839	217	55	1314
Propelling device. Boat.	J. G. Kiah	464,973	Dec. 15	1494	375	57	1440
Propelling vessels.	T. Mills	457,361	Aug. 11	739	169	56	676
Propelling vessels. Machinery for	H. P. Holland	457,437	Aug. 11	848	{ 219 220 }	56	699
Propelling vessels. Means for	E. W. Gram	452,669	May 19	1977	496	55	964
Propelling vessels. Means for	C. J. Menges	457,426	Aug. 11	832	{ 215 216 }	56	696
Propelling-wheel	T. Dunlap	461,609	Oct. 20	1834	453	57	365
Propelling-wheel	J. W. Seivert	461,547	Oct. 20	1640	401	57	329
Propulsion of vessels. Hydraulic.	J. C. Bowring and A. Newcomb	454,151	June 16	1459	{ 382 383 }	55	1442
Protector:							
See Back-stay protector.	Heel-protector.						
Bank-protector.	Horse-protector.						
Beam end protector.	Map and shade protector.						
Book-protector.	Pier-protector.						
Check-protector.	Pocket-protector.						
Chest-protector.	Printing-press ink-fountain protector.						
Clothing protector.	Queen-cell protector.						
Collar or cuff protector.	Screw-protector.						
Dust and cinder protector.	Shoe-protector.						
Electric contact protector.	Shovel-protector.						
Electrical protector.	Skirt-protector.						
Fence and tree-protector.	Sole-protector.						
Fire-protector.	Telephone-protector.						
Fireman's smoke-protector.	Tree-protector.						
Fruit-bud protector.	Trowsers-protector.						
Garment-protector.	Udder-protector.						
	Wall-protector.						
	Wash-boiler-drip protector.						
	Watch-protector.						
Protractor	S. A. Brown	454,710	June 23	2329	599	55	1614
Protractor	T. J. Parkinson	453,385	June 2	315	82	55	1206
Protractor.	C. S. Reamy	449,782	Apr. 7	216	55	55	44
Protractor and bevel. Combined	G. E. Allen	460,421	Sept. 29	2941	735	56	1660
Prune scalding and rinsing machine	L. Cunningham	464,631	Dec. 8	956	236	57	1327
Pruning implement	A. and F. Bosch	459,989	Sept. 22	2378	572	56	1527
Pruning implement	S. B. Custer and W. L. Gorrell	458,560	Sept. 1	21	4	56	1069
Pruning implement	A. B. Nichols	455,400	July 7	497	128	56	96
Pruning implement	J. W. Perry and R. H. Dixon	448,363	Mar. 17	1802	454	54	1479
Pruning implement	A. L. Schollhorn	450,342	Apr. 14	1059	260	55	209
Puddler's balls. Making	J. Siebel	445,480	Jan. 27	2374	618	54	488
Pug-mill	H. A. Jones	457,352	Aug. 11	723	184	56	673
Pug-mill	L. W. Nuebling	452,147	May 12	1136	288	55	795
	W. A. Parry	445,703	Feb. 3	310	82	54	573

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Puller:							
See Bolt-puller.	Stalk-puller.						
Cork-puller.	Staple-puller.						
Cotton-stalk puller.	Stamp-puller.						
Nail-puller.	Tack-puller.						
Spoke-puller.	Weed-puller.						
Pulley	J. T. Carmody	453,075	May 26	2642	666	55	1101
Pulley	G. C. Cowles	445,047	Jan. 20	1727	444	54	353
Pulley	J. M. Dodge	464,795	Dec. 8	1225	305	57	1377
Pulley	W. H. Dodge	456,722	July 25	2273	603	56	460
Pulley	T. Gingras	446,567	Feb. 17	1744	429	54	871
Pulley	W. L. Hall	449,676	Apr. 7	45	11	55	11
Pulley	J. Hampton	457,644	Aug. 11	1171	300	56	760
Pulley	W. B. Hosford	459,067	Sept. 8	818	198	56	1231
Pulley	I. N. Kendall	453,315	June 2	211	56	55	1187
Pulley	E. C. Mershon and H. D. Richters	456,731	July 28	2291	606	56	462
Pulley and bracket. Clothes-line.	O. Lund	459,142	Sept. 8	939	225	56	1255
Pulley and constructing the same. Separable	H. J. Gilbert	455,875	July 14	933	245	56	118
Pulley. Band	A. C. Pessano	452,730	May 19	2076	523	55	984
Pulley. Belt	P. Medart	458,634	Sept. 1	132	29	56	1092
Pulley. Belt	P. Medart	458,635	Sept. 1	133	30	56	1092
Pulley-block	J. C. McNamara	446,461	Feb. 17	1583	389	54	840
Pulley-block	J. L. Reed	448,729	Mar. 24	2393	599	54	1599
Pulley. Cable	G. S. Duncan	462,379	Nov. 3	259	64	57	600
Pulley-connecting device	B. J. Arnold	463,675	Nov. 24	2327	610	57	1026
Pulley. Expansion	C. Keck and F. Buob	464,798	Dec. 8	1229	306	57	1378
Pulley-fastening	C. N. Wilcox	463,960	Nov. 24	2772	719	57	1110
Pulley. Friction-clutch	C. H. Waterous, Jr., and J. N. Peel	447,217	Feb. 24	2832	702	54	1087
Pulley lubricator. Loose	E. Lumkenheimer	453,014	May 26	2538	642	55	1081
Pulley lubricator. Loose	H. L. Miller	450,519	Apr. 14	1325	325	55	261
Pulley lubricator. Loose	J. J. Tunney	455,368	July 7	107	30	56	25
Pulley or collar. Detachable shaft	W. Kunning and T. Dowdell	461,501	Oct. 20	1562	383	57	315
Pulley. Return	L. H. Paul	447,199	Feb. 24	2798	691	54	1080
Pulley. Self-locking	J. T. Burr	461,316	Oct. 13	1194	304	57	239
Pulley. Self-oiling loose	A. D. Pentz	458,539	Aug. 25	2630	640	56	1054
Pulley. Separable	H. J. Gilbert	451,038	Apr. 28	2167	535	55	444
Pulley. Separable wood	H. J. Gilbert	455,876	July 14	935	245	56	188
Pulley. Split	J. B. Cornwall	449,608	Mar. 31	3796	953	54	1871
Pulley. Split	J. B. Cornwall	451,426	Apr. 28	2778	686	55	562
Pulley. Split	O. C. Little	452,866	May 26	2288	575	55	1033
Pulley. Split	D. T. McNeil	453,937	June 9	1151	301	55	1375
Pulley. Split	J. Old	459,763	Sept. 22	1934	487	56	1462
Pulley. Split	D. G. Reitz	454,227	June 16	1565	412	55	1463
Pulley. Wood	J. Murray	462,363	Nov. 3	234	58	57	595
Pulley. Wrought-metal	C. D. Weeks	466,204	Dec. 29	3526	901	57	1846
Pulley. Wrought-metal split	C. D. Weeks	466,205	Dec. 29	3526	902	57	1846
Pulleys. Chill-mold for	F. M. Davis	444,606	Jan. 13	981	254	54	203
Pulleys. Self-lubricating device for	W. W. Carey	444,812	Jan. 20	1303	339	54	272
Pulleys to shafts. Fastening for securing	W. C. Irvin	458,589	Sept. 1	50	11	56	1075
Pulleys to shafts. Fitting	R. E. Papendick	454,916	June 30	2688	688	55	1688
Pulleys. Universal joint and support for	T. S. Brown	454,422	June 16	1869	489	55	1520
Pulp. Apparatus for regulating the consistency of wood	J. A. Decker and J. Goebel	449,251	Mar. 31	3200	806	54	1762
Pulp beating and refining machine	S. D. Beach	463,823	Nov. 24	2546	664	57	1068
Pulp cylinders. Machine for making	F. L. Bartlett	447,455	Mar. 3	304	76	54	1175
Pulp digester	G. P. Russell	445,235	Jan. 27	2020	521	51	418
Pulp-digesters. Lining for	W. O. Comstock	453,076	May 26	2643	666	55	1101
Pulp into different grades. Machine for separating ground wood	E. F. Millard	457,089	Aug. 4	246	64	56	5-0
Pulp. Machine for forming hollow ware from	G. D. King	459,164	Sept. 8	973	236	56	1262
Pulp. Machine for forming hollow ware from	G. W. Laraway	462,802	Nov. 10	919	240	57	738
Pulp. Machine for forming sheets from	H. Parker and G. F. Cushman	462,505	Nov. 3	441	109	57	635
Pulp-machines. Automatic severing device for	O. J. Thomas	457,467	Aug. 11	896	211	56	707
Pulp-molding machine	D. H. Ferguson	444,916	Jan. 20	1521	391	54	313
Pulp-molding machine	G. D. King	459,174	Sept. 8	994	243	56	1265
Pulp. Producing ground wood	E. F. Millard	449,586	Mar. 31	3765	953	54	1865
Pulp refining and dressing engine	S. R. Wagg	447,853	Mar. 10	953	238	54	1305
Pulp screen machine	G. D. Rowell	457,013	Aug. 4	125	30	56	557
Pulp-separator. Magnetic	W. C. Edwards	446,704	Feb. 17	1949	486	54	910
Pulverizer	S. B. Frank	447,674	Mar. 3	638	158	54	1238
Pulverizer. Clay	D. Griffin and J. A. Markoe	466,034	Dec. 29	3270	834	57	1796
Pulverizer. Soil	A. E. Jackson	463,628	Nov. 24	2259	595	57	1013
Pulverizing-machine	J. K. Hallowell	447,030	Feb. 24	2493	620	54	1023
Pulverizing-machine beater	A. S. Ross	453,417	June 2	383	99	55	1219
Pulverizing-mill	J. K. Griffin	452,782	May 26	2163	542	55	1008
Pulverizing or reducing mill	J. A. Peer	462,277	Nov. 3	88	22, 23	57	568
Pulverizing wood	A. Mitscherlich	459,389	Sept. 15	1654	56	56	1402
Pump	C. P. Allen	453,781	June 9	955	247	55	1337
Pump	J. G. Augustine	452,961	May 26	2456	620	55	1066
Pump	G. F. Beebe	449,607	Mar. 31	3795	952	54	1871
Pump	D. Berridge	453,925	June 9	1135	297	55	1372
Pump	R. Branham	461,417	Oct. 20	1374	348	57	280
Pump	G. Brown	454,609	June 23	2178	562	55	1585
Pump	C. Cushing	462,471	Nov. 3	401	98	57	626
Pump	J. Darling	456,128	July 14	1297	341	56	257
Pump	H. J. Dykes	462,666	Nov. 3	691	175	57	684
Pump	W. Evered	466,094	Dec. 29	3358	858	57	1815

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Pump.....	J. P. Hauna.....	444,434	Jan. 13	711	186	54	148
Pump.....	G. J. Keller.....	445,560	Feb. 3	64	15	54	524
Pump.....	R. A. Lister and M. Pedersen.....	451,827	May 5	582	143 144	55	690
Pump.....	A. H. Lowell.....	461,354	Oct. 13	1254	319	57	251
Pump.....	C. J. McKenzie and D. M. Mikesell.....	455,636	July 7	548	142	56	106
Pump.....	W. McLennau.....	474,180	June 16	1500	393	55	1450
Pump.....	S. G. Mills.....	459,299	Sept. 8	1178	286	56	1302
Pump.....	J. P. Montgomery.....	445,962	Feb. 3	728	178	54	655
Pump.....	E. Neff.....	451,835	May 5	590	146	55	692
Pump.....	C. P. Smith.....	460,223	Sept. 29	2639	658	56	1604
Pump.....	G. A. Smith.....	450,535	Apr. 14	1341	330	55	264
Pump.....	A. H. Titus.....	448,282	Mar. 17	1669	423	54	1451
Pump.....	J. W. Wadsworth.....	445,577	Feb. 3	89	21	54	529
Pump.....	A. W. White.....	459,529	Sept. 15	1556	387 388	56	1383
Pump.....	E. Zickwolf.....	450,393	Apr. 14	1137	278	55	224
Pump. Air-compressing.....	E. C. Fasoldt.....	464,223	Dec. 1	342	83	57	1198
Pump. Air-compressing.....	L. J. Gennett.....	459,685	Sept. 15	1811	455	56	1431
Pump and pumping-engine.....	W. H. Bailey and G. Lindemann.....	457,022	Aug. 4	136	34	56	559
Pump and water-elevator. Automatic.....	A. H. Bryan.....	462,651	Nov. 3	672	170	57	681
Pump apparatus. Track.....	M. B. Mills.....	447,576	Mar. 3	501	123	54	1211
Pump. Automatic electric.....	C. J. Van Depoele.....	461,294	Oct. 13	1160	296	57	232
Pump. Automatic steam vacuum.....	H. Snooks.....	462,069	Oct. 27	2465	611	57	494
Pump. Beer.....	C. A. Bartliff.....	457,243	Aug. 4	491	130	56	625
Pump. Beer.....	J. C. Magee.....	452,600	May 19	1885	474	55	946
Pump. Beer.....	J. Morehead.....	451,130	Apr. 28	2302	570	55	471
Pump. Beer.....	J. Morehead.....	465,943	Dec. 29	3093	792	57	1764
Pump. Bottle.....	L. Heitmann.....	452,643	May 19	1941	487	55	957
Pump. Centrifugal.....	H. W. Brown.....	445,919	Feb. 3	658	161	54	641
Pump. Centrifugal force.....	E. S. Nicholas and J. R. Turner.....	450,491	Apr. 14	1285	315	55	252
Pump. Centrifugal force.....	E. S. Nicholas and J. R. Turner.....	462,987	Nov. 10	1221	318	57	796
Pump. Chain.....	C. H. Presbrey.....	461,045	Oct. 13	777	199	57	157
Pump. Chain.....	B. B. Spence.....	449,598	Mar. 31	3786	950	54	1869
Pump connection. Vacuum.....	A. Berenberg.....	447,275	Feb. 24	2931	728 729	54	1108
Pump-cylinder.....	S. A. Ronse.....	451,073	Apr. 28	2211	547	55	453
Pump. Deep-well.....	J. Bean.....	457,244	Aug. 4	493	131	56	625
Pump. Double-acting.....	S. White.....	445,915	Feb. 3	652	159	54	640
Pump. Double-acting force.....	J. H. Anslyn.....	455,979	July 14	1089	266	56	215
Pump. Double-acting force.....	C. Clemens and J. C. Myers.....	461,236	Oct. 13	1078	273	57	215
Pump. Double-action force.....	S. J. Harris.....	460,764	Oct. 13	663	170	57	136
Pump. Double-acting lift.....	O. W. Parker.....	455,515	July 7	340	87	56	17
Pump. Double-acting suction and force.....	A. J. Hopkins.....	450,461	Apr. 14	1237	302	55	242
Pump. Duplex steam.....	C. M. Miller.....	448,356	Mar. 17	1791	453	54	1478
Pump. Duplex steam.....	L. F. Voisard.....	460,900	Oct. 6	566	143	57	111
Pump. Ejector.....	S. Dallson.....	456,984	Aug. 4	92	23	56	551
Pump. Electric air.....	A. A. Dittmar and H. Falkenhausen.....	457,762	Aug. 11	1367	353	56	801
Pump. Electrically-actuated.....	C. J. Van Depoele.....	467,295	Oct. 13	1162	296	57	232
Pump for raising water near railways.....	C. Hodgson.....	464,361	Dec. 1	560	137	57	1240
Pump. Force.....	F. F. Danaher.....	446,283	Feb. 10	1291	316	54	768
Pump. Force.....	S. J. Webb.....	444,128	Jan. 6	250	60	54	51
Pump. Gas-compression.....	W. S. Brewer.....	448,874	Mar. 24	2619	658	54	1642
Pump governor. Steam.....	T. Shaw.....	453,671	June 9	775	200	55	1302
Pump governor. Steam.....	F. Stitzel.....	452,809	May 26	2206	553	55	1018
Pump. Hydraulic air.....	T. Lieb.....	447,061	Mar. 10	1134	285 286	54	1339
Pump. Hydraulic air.....	J. Wleck.....	464,237	Dec. 1	362	82	57	1202
Pump. Hydraulic beer.....	J. L. Shiring.....	444,994	Jan. 20	1644	421	54	337
Pump. Mercurial air.....	A. E. Scott.....	462,455	Nov. 3	373	92, 93	57	622
Pump-motor.....	G. F. Wightman.....	458,928	Sept. 1	596	146	56	1181
Pump. Oil.....	R. S. Edmunds.....	446,734	Feb. 17	1999	498	54	920
Pump operating mechanism.....	C. A. Frost.....	445,990	Feb. 10	788	192	54	675
Pump or other pipes. Sand.....	C. G. Choan.....	461,997	Oct. 27	2364	586	57	475
Pump piston. Pneumatic.....	C. H. Robinson.....	449,333	Mar. 31	3348	814	54	1787
Pump. Pneumatic.....	U. Cummings.....	464,651	Dec. 8	929	247	57	1334
Pump. Pneumatic.....	U. Cummings.....	465,243	Dec. 15	1963	502	57	1528
Pump. Pulsating steam.....	W. P. Theermann.....	452,400	May 19	1548	384 385	55	884
Pump-regulator. Automatic.....	W. L. Fitch.....	457,987	Aug. 18	1748	459	56	878
Pump. Rotary.....	E. H. Gollings.....	448,334	Mar. 17	1759	445 446	54	1472
Pump. Rotary.....	E. H. Gollings.....	448,335	Mar. 17	1764	446 447	54	1472
Pump. Rotary.....	E. H. Gollings.....	448,336	Mar. 17	1766	447	54	1473
Pump. Rotary.....	E. H. Gollings.....	448,518	Mar. 17	2036	509 510	54	1524
Pump. Rotary.....	E. H. Gollings.....	448,608	Mar. 17	2186	516 547	54	1551
Pump. Rotary.....	E. H. Gollings.....	448,609	Mar. 17	2189	517	54	1552
Pump. Rotary.....	W. Hechhausen.....	462,708	Nov. 10	772	201	57	708
Pump. Rotary.....	R. Leach.....	445,318	Jan. 27	2140	553	54	443
Pump. Rotary.....	J. Menge. (Reissue).....	11,214	Dec. 29	3704	946	57	1880
Pump. Rotary.....	N. Nilson.....	452,726	May 19	2073	521	55	983
Pump. Sand.....	J. Braden.....	449,663	Apr. 7	28	6	55	7
Pump-spring. Compensating.....	W. L. Black.....	450,657	Apr. 21	1573	378	55	323
Pump. Steam.....	L. P. Dixon.....	458,771	Sept. 1	333	81	56	1129
Pump. Steam.....	J. G. Downie.....	454,857	June 30	2564	660	55	1664
Pump. Steam.....	A. F. Hall.....	455,868	July 14	922	240	56	186
Pump. Steam.....	G. D. Rand and J. A. Kollmyer.....	465,050	Dec. 15	1643	418 419	57	1468
Pump. Steam.....	D. H. Royce and C. Tufts.....	445,412	Jan. 27	2278	591	54	471
Pump. Steam and vacuum.....	E. Körting.....	457,729	Aug. 11	1311	340	56	789
Pump. Steam vacuum.....	A. H. Dodd.....	452,749	May 19	2112	532	55	990

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. E.	Vol.	Page.
Pump. Steam vacuum.....	G. E. Nye	452,080	May 12	1024	259	55	775
Pump. Steam vacuum.....	G. E. Nye	454,062	June 16	1325	346	55	1417
Pump. Steam vacuum.....	G. H. Nye	464,037	Dec. 1	45	12	57	1145
Pump. Surf-power.....	H. E. Thomas	450,434	Apr. 14	1203	203	55	236
Pump. Vacuum.....	A. Berrenberg.....	449,066	Mar. 24	2902	736	54	1697
Pump. Vacuum.....	A. Berrenberg and W. E. Nickerson.	447,273	Feb. 24	2929	728	54	1107
Pump. Vacuum.....	A. Berrenberg and W. E. Nickerson	447,274	Feb. 24	2930	728	54	1107
Pump. Vacuum.....	A. Bornholdt	446,960	Feb. 24	2372	590	54	1001
Pump. Vacuum.....	W. E. Nickerson	453,275	June 2	148	42	55	1176
Pump. Vacuum.....	W. E. Nickerson	453,276	June 2	150	42	55	1176
Pump. Vacuum.....	W. E. Nickerson and A. Berrenberg.	452,441	May 19	1619	402	55	897
Pump. Vacuum.....	W. E. Nickerson and A. Berrenberg	453,277	June 2	151	43	55	1176
Pump. Vacuum.....	F. G. A. Schnize-Berge	452,552	May 26	2258	569	55	1029
Pump. Vacuum and force.....	D. C. Burson	460,944	Oct. 13	631	163	57	130
Pump-valve.....	A. J. Hopkins	449,533	Mar. 31	3678	924	54	1850
Pump-valve.....	G. H. Remington and J. T. Hen- thorn.....	453,347	June 2	260	68	55	1197
Pump valve. Steam.....	H. Beisheim	451,591	May 5	223	53	55	622
Pump valve. Steam.....	A. D. Cook and G. E. Willers	460,562	Oct. 6	29	7, 8	57	7
Pump. Vertical steam.....	C. H. Robinson	454,498	June 23	1984	515	55	1551
Pumps. Apparatus for cooling and lubricating the working parts of.....	C. G. Mayer	450,517	Apr. 14	1321	324	55	260
Pumps. Appliance for regulating the action of wind- mill.....	A. O. Melaas	446,410	Feb. 10	1498	369	54	809
Pumps. Condenser for gas.....	C. A. MacDonald	444,385	Jan. 6	628	162	54	124
Pumps. Controlling apparatus for feed.....	G. A. Roessler	464,733	Dec. 8	1128	279	57	1359
Pumps. Electrical register for measuring.....	R. Jewell	453,484	June 2	44	125	55	1239
Pumps for air and gases. Apparatus for compensat- ing the pressure in slide.....	E. Hübner	445,966	Feb. 3	735	179	54	657
Pumps for moving gaseous bodies. Valve of.....	W. F. Garrison	454,646	June 23	2236	575	55	1594
Pumps. Motor for driving.....	C. C. Henderson	462,550	Nov. 3	519	126	57	650
Pumps. Plunger for working barrels of.....	J. Bird	464,418	Dec. 1	635	156	57	1255
Pumps. Pressure-regulator for.....	T. W. Heermans	459,384	Sept. 8	1320	330	56	1330
Pumps. Regulator for windmill.....	P. A. Myers	448,985	Mar. 24	2776	702	54	1673
Pumps. Valve for air.....	J. Herrold	450,152	Apr. 14	745	189	55	151
Pumping apparatus. Automatic.....	A. L. White and D. M. Miller	452,628	May 19	1916	481	55	952
Pumping apparatus. Oil-well.....	G. Allen	460,807	Oct. 6	427	106	57	85
Pumping-engine.....	R. M. and J. G. Downie	444,627	Jan. 13	1006	262	54	208
Pumping-engine.....	J. A. Groshon	462,218	Oct. 27	2708	682	57	540
Pumping-engine.....	J. Pollock	462,061	Oct. 27	2454	608	57	492
Pumping-engine. Direct-acting.....	C. H. Atkins	456,131	July 21	1304	343	56	267
Pumping-engine. Direct-acting.....	L. D'Auria	446,435	Feb. 17	1541	379	51	830
Pumping-engine. Direct-acting.....	A. G. Mumford and A. Anthony....	454,059	June 16	1319	344	55	1416
Pumping-engine. Duplex.....	E. Barnes	456,753	July 28	2342	617	56	471
Pumping-engine. Duplex.....	E. Barnes	456,754	July 28	2345	618	56	472
Pumping-engines. Gear for controlling the speed of.....	C. Davy	447,146	Feb. 24	2709	671	54	1063
Pumping-engines of hydraulic forging or other press- es. Governing-gear for the.....	C. Davy	447,147	Feb. 24	2711	672	54	1063
Pumping mechanism for oil-wells.....	T. G. Laney	448,573	Mar. 17	2120	531	54	1540
Pumping natural gas. System of.....	J. N. Pew	448,670	Mar. 24	2293	575	54	1580
Pumping water, &c. Device actuated by passing trains for.....	M. Burt	456,535	July 21	1968	519	56	392
Punch.....	L. O. Crocker	456,983	Aug. 4	92	22	56	551
Punch.....	F. N. Simmonds	458,076	Aug. 18	1875	488	56	904
Punch.....	P. H. Yawman	444,891	Jan. 20	1468	380	54	303
Punch. Bank-check.....	F. W. Smith, Jr., and S. S. William- son.....	460,164	Sept. 29	2552	637	56	1586
Punch. Bank-check.....	S. S. Williamson	462,290	Nov. 3	112	28	57	572
Punch. Check.....	G. L. Banks	449,993	Apr. 7	518	129	55	100
Punch. Check.....	F. M. Clark	451,368	Apr. 28	2684	665	55	544
Punch. Check.....	W. D. Elger	464,498	Dec. 8	755	184	57	1287
Punch. Check.....	J. A. House	464,755	Dec. 8	1161	289	57	1364
Punch. Check.....	L. M. Mills	450,913	Apr. 21	1964	481	55	397
Punch. Check.....	R. L. Rogers	454,156	June 16	1466	385	55	1444
Punch. Check.....	T. A. Short	446,478	Feb. 17	1606	394	54	844
Punch. Check.....	W. F. Stark	454,574	June 23	2100	542	55	1572
Punch. Check.....	J. Stewart	460,257	Sept. 29	2685	669	56	1613
Punch. Check.....	S. S. Williamson	465,549	Dec. 22	2480	632	57	1635
Punch. Fare-registering.....	C. H. Folger	465,256	Dec. 15	1989	508	57	1532
Punch for bank-checks.....	F. W. Smith, Jr., and S. S. William- son.....	455,929	July 14	1014	264	56	203
Punch for making turn-buckles. Die.....	M. Kennedy	444,595	Jan. 13	965	250	54	200
Punch. Paper.....	A. B. Dick	450,224	Apr. 14	857	215	55	172
Punch. Railway-ticket.....	T. A. Hillier	462,912	Nov. 10	1104	288	57	773
Punch. Ticket.....	W. H. Donovan	451,180	Apr. 28	2377	591	55	487
Punch. Train fare.....	W. D. Eitel	444,576	Jan. 13	943	244	54	195
Punches from dies. Making.....	R. Gaiger	454,618	June 23	2193	566	55	15-7
Punching and shearing machine.....	C. A. Anderson	456,211	July 21	1430	379	56	291
Punching and shearing machine.....	G. J. Sarrbrey	453,363	June 2	282	75	55	1200
Punching and shearing machine.....	J. H. Sternbergh	452,855	May 26	2272	570	55	1030
Punching and swaging machine. Combined.....	W. H. Johnson	464,024	Dec. 1	29	8, 9	57	1142
Punching apparatus.....	N. Nelson	455,289	June 30	3356	849	55	1817
Punching holes in Jacquard cards. Machine for.....	O. W. Schaum	445,340	Jan. 27	2175	503	54	451
Punching-machine.....	W. Frech	449,154	Mar. 31	3041	769	54	1732
Punching-machine.....	D. Kennedy	448,525	Mar. 17	2050	513	54	1526
Punching-machine.....	J. M. Long	456,579	July 28	2034	538	56	413

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Punching-machine. Washer.....	A. J. Mason.....	444,917	Jan. 20	1522	{ 391 392	{ 51	313
Punching-machine work-holder.....	J. M. Long.....	456,578	July 28	2032	538	56	413
Punkas. Apparatus for working.....	H. E. Walter.....	459,663	Sept. 15	1782	448	56	1425
Purifier and dust-collector. Self-contained.....	H. A. and C. A. Barnard.....	455,270	June 30	3304	837	55	1806
Purifier and separator.....	J. Higginbottom.....	448,520	Mar. 17	2039	510	54	1524
Purse-frame.....	A. Goertz.....	453,282	June 2	158	45	55	1178
Purse-frame.....	A. Goertz.....	453,283	June 2	159	45	55	1178
Push and pull. Combined.....	A. Iske.....	448,044	Mar. 10	1271	324	54	1366
Push-button.....	J. E. White.....	460,416	Sept. 29	2434	734	56	1659
Push-button.....	G. W. Wright.....	455,066	June 30	3006	764	55	1749
Puzzle.....	T. E. Armitstead.....	448,577	Mar. 17	2125	532	54	1541
Puzzle.....	A. N. Burbank.....	460,552	Oct. 6	9	3	57	4
Puzzle.....	F. E. Clark and G. Wexler.....	444,239	Jan. 6	421	105	54	83
Puzzle.....	M. L. Cole.....	456,554	July 28	2001	528	56	406
Puzzle.....	T. A. Frazer.....	446,513	Feb. 17	1662	404	54	854
Puzzle.....	J. F. Hitchcock and C. D. Hawley.....	465,133	Dec. 15	1800	455	57	1496
Puzzle.....	J. E. Jackson.....	449,281	Apr. 7	354	90	55	70
Puzzle.....	E. E. Jenne.....	456,296	July 28	2451	645	56	492
Puzzle.....	D. H. Kent.....	463,903	Nov. 24	2682	698	57	1092
Puzzle.....	S. L. Law.....	463,425	Nov. 17	1926	503	57	940
Puzzle.....	Z. F. Lightner.....	446,872	Feb. 24	2224	552	54	975
Puzzle.....	L. M. Lyon.....	448,974	Mar. 24	2763	698	54	1670
Puzzle.....	A. E. Paige.....	466,121	Dec. 29	3400	871	57	1823
Puzzle.....	H. M. Smith.....	462,170	Oct. 27	2624	654	57	525
Puzzle.....	J. Stern.....	455,066	June 30	2979	{ 758 759	{ 55	1745
Puzzle.....	N. A. Swett.....	451,358	May 12	795	201	55	737
Puzzle.....	W. Trumbull.....	465,147	Dec. 15	1821	461	57	1499
Puzzle.....	J. M. Wheeler.....	450,653	Apr. 21	1568	377	55	323
Puzzle.....	P. H. Wheeler.....	447,418	Mar. 3	238	61	54	1162
Puzzle.....	C. I. Wooster.....	466,124	Dec. 29	3406	872	57	1824
Puzzle-ball.....	A. A. Outerbridge.....	446,535	Feb. 17	1698	416	54	862
Puzzle. Calendar.....	J. S. McTear.....	454,331	June 23	2523	{ 649 650	{ 55	1649
Pyro-chemical battery.....	J. Blair and A. G. Hunter.....	446,727	Feb. 17	1986	495	54	917
Pyrotechnics. Electrical.....	P. C. E. Champion.....	465,781	Dec. 29	3159	{ 809 810 811	{ 57	1776
Pyroxyline. Manufacture of.....	H. de Chardonnet.....	455,245	June 30	3265	...	55	1799
Pyroxyline material. Polishing sheets of.....	W. Schmidt.....	465,784	Dec. 22	2939	725	57	1704
Quartz-mill.....	D. B. James.....	458,170	Aug. 25	2023	525	56	939
Quartz-mill. Roller.....	C. C. Lane.....	456,623	July 28	2117	559	56	429
Queen-cell protector and queen-cage.....	N. D. West.....	465,010	Dec. 15	1578	403	57	1456
Quilling-machine.....	J. T. Meats.....	444,499	Jan. 13	821	{ 214 215	{ 54	172
Quilting.....	D. H. Coles.....	446,328	Feb. 10	1365	332	54	782
Quilting-frame.....	W. H. Church.....	462,395	Nov. 3	229	71	57	606
Quilting-frame.....	E. Martin.....	449,801	Apr. 7	245	62	55	49
Quilting-frame.....	J. M. Stukes.....	453,350	June 2	267	70	55	1198
Quilting-machine.....	M. Koch.....	447,570	Mar. 3	491	121	54	1209
Quilting-machine.....	M. Koch.....	447,571	Mar. 3	495	{ 121 122	{ 51	1210
Quilting-machine.....	M. Koch.....	456,726	July 28	2276	604	56	460
Quilting-machine.....	M. Koch.....	456,727	July 28	2281	{ 604 605	{ 56	461
Quilting-machine.....	F. L. Palmer.....	448,253	Mar. 17	1604	{ 409 410	{ 54	1441
Quilting-machine.....	L. Schultz.....	456,734	July 28	2296	{ 607 608	{ 56	463
Quilting-machine.....	L. Schultz.....	456,735	July 28	2300	609	56	464
Quilting-machine.....	L. Schultz.....	456,736	July 28	2302	{ 609 610	{ 56	464
Quilting-machine.....	L. Schultz.....	456,737	July 28	2305	610	56	465
Quilting-machine.....	L. Schultz.....	456,738	July 28	2309	611	56	466
Quilting-machine.....	L. Schultz.....	456,740	July 28	2315	612	56	466
Quilting-machine.....	L. Schultz and T. A. Weber.....	447,794	Mar. 10	859	{ 213 214	{ 54	1287
Racing-indicator.....	S. D. Mott.....	444,454	Jan. 13	737	{ 192 193	{ 54	154
Rack:							
See Barrel-rack.	Hat and clothes rack.						
Book-rack.	Hay-rack.						
Broom-rack.	Horseshoeing-rack.						
Canal-rack.	Label-rack.						
Cattle-rack.	Last-rack.						
Cheese-rack.	Mold-rack.						
Clothes-rack.	Music-rack.						
Coat and umbrella rack.	Pen-rack.						
Cooking-rack.	Revoluble rack.						
Display-rack.	Safety-rack.						
Exhibiting-rack.	Sewing-machine spool-rack.						
Exhibition-rack.	Show-rack.						
Feed-rack.	Towel-rack.						
File-rack.	Umbrella-rack.						
Folding rack.	Window-rack.						
Hat-rack.							
Rack attachment for theater or other chairs or seats.....	G. Hermann.....	454,351	June 16	1748	451	55	1498
Radiator.....	G. C. and L. R. Blackmore.....	448,630	Mar. 24	2234	{ 560 561	{ 54	1569
Radiator.....	J. Bond.....	452,828	May 26	2231	560	55	1023
Radiator.....	W. Burling.....	457,601	Aug. 11	1111	2-3	56	749
Radiator.....	G. B. Cohl.....	445,926	Feb. 3	670	161	51	643

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Radiator	A. H. Fowler	446,580	Feb. 17	1759	433	54	874
Radiator	P. B. Fox	452,028	May 12	908	232	55	758
Radiator	J. A. Goodrich	462,299	Nov. 10	1086	282	57	770
Radiator	H. N. Hemingway	448,036	Mar. 10	1256	320	54	1363
Radiator	T. Holland	464,797	Dec. 8	1226	305 306	57	1378
Radiator	W. E. Landon	457,648	Aug. 11	1173	301	56	761
Radiator	W. E. Landon	457,649	Aug. 11	1174	301	56	761
Radiator	F. Marak, Jr.	451,944	May 12	774	196	55	732
Radiator	C. E. Marston	451,830	May 5	585	144	55	691
Radiator	J. L. Wells	447,990	Mar. 10	1191	302	54	1351
Radiator attachment. Steam	H. E. Stager	456,346	July 21	1650	436	56	332
Radiator-coupling	A. O. Kittredge and J. J. Hogan	450,160	Apr. 14	757	192	55	154
Radiator for burners. Heat	J. W. Free	455,543	July 7	396	103	56	77
Radiator. Gas or oil	J. Johnson	459,882	Sept. 22	2138	535	56	1500
Radiator. Hot-air	W. B. Mumford	461,484	Oct. 20	1538	377	57	310
Radiator. Sheet-metal	H. A. Crossley	449,901	Apr. 7	369	98	55	76
Radiator. Steam	C. Otis	447,241	Feb. 24	2874	714	54	1096
Radiator. Steam-heating	E. M. Link	464,159	Dec. 1	1229	55	57	1179
Radiator. Steam or hot-water	T. C. Joy	456,895	July 28	2567	675	56	512
Radiator. Steam or hot-water	T. C. Joy	456,896	July 28	2568	675	56	512
Radiator-support	M. W. Bailly	450,325	Apr. 14	1026	253	55	203
Radiators. Air-escape for	D. W. Dodson	463,291	Nov. 17	1697	443	57	897
Radiometer	J. F. Scheller	459,656	Sept. 15	1772	446	56	1423
Radiometer	C. Deshler	454,719	June 23	2343	602	55	1617
Raft. Log	E. G. Harris	455,617	July 7	517	133	56	99
Rag-cutting machine	J. W. Tinscher	453,380	June 2	307	80, 81	55	1205
Rags and waste. Picker for	S. A. Prescott	444,672	Jan. 13	1083	280 281	54	222
Rail and its fastening. Girder	W. C. Wood	450,594	Apr. 14	1427	351	55	280
Rail-braces. Machine for making	C. Partington and E. W. Harden	458,480	Aug. 25	2539	619 620	56	1035
Rail brake	W. H. Elmond	448,419	Mar. 17	1892	475	54	1497
Rail-brake	A. M. Perry	447,161	Feb. 24	2737	677	54	1068
Rail-brake. Safety	J. W. C. McCurdy	461,486	Oct. 20	1540	377	57	310
Rail-cambering apparatus	J. Duffield	447,051	Feb. 24	2533	629 630	54	1030
Rail-chair	V. Angerer	453,458	June 2	452	115	55	1233
Rail-chair	A. Heyn	449,261	Mar. 31	3211	810	54	1764
Rail-chair	J. Johnson	451,823	May 5	577	142	55	689
Rail-chair	J. P. Lancaster	460,206	Sept. 29	2616	653	56	1599
Rail-chair	W. A. Pearson, Jr.	449,570	Mar. 31	3732	938	54	1859
Rail-chair	G. E. Walls	465,223	Dec. 15	1931	491	57	1522
Rail clamps. Blank for girder	W. C. Wood	460,517	Sept. 29	3103	776	56	1693
Rail-connection with supplemental wire	C. A. Robinson	450,193	Apr. 14	799	202	55	162
Rail-fastener and chair for the same	F. F. Main	458,475	Aug. 25	2533	617	56	1034
Rail fastening	R. Smith	453,922	June 9	1131	296	55	1371
Rail frogs. Locking device for spring	M. L. and H. W. Byers	462,201	Oct. 27	2676	670	57	535
Rail-joint	R. J. Colvin	460,848	Oct. 6	480	122	57	95
Rail-joint	W. H. Connell	451,454	May 5	10	3	55	581
Rail-joint	W. H. Connell	452,833	May 26	2237	561	55	1024
Rail-joint	B. R. Cook	459,996	Sept. 22	2288	573	56	1529
Rail-joint	J. A. Eno	462,967	Nov. 10	1192	309	57	790
Rail-joint	C. Fisher	466,095	Dec. 29	3360	858	57	1815
Rail-joint	W. J. McCord	459,045	Sept. 8	786	190	56	1226
Rail-joint	M. C. Niles	464,696	Dec. 8	1067	265	57	1347
Rail-joint	M. C. Niles	464,702	Dec. 8	1078	267	57	1349
Rail-joint, &c	J. Reifert	458,342	Aug. 25	2320	566	56	995
Rail-joint	E. Samuel	464,793	Dec. 8	1220	304	57	1376
Rail-joint	J. M. Wiley	461,088	Oct. 13	837	216	57	168
Rail-joint fastening	J. R. Burgess	445,971	Feb. 10	745	182	54	668
Rail-joint. Lock	P. C. Dockstader	462,399	Nov. 3	294	73	57	607
Rail-joint. Pressed-steel	C. T. Schoen	446,017	Feb. 10	825	199	54	681
Rail-joint support	J. T. Richardson	448,730	Mar. 24	2394	559	54	1599
Rail-joints. Fish-plate connection for	G. W. Eddy	463,419	Nov. 17	1917	501	57	939
Rail. Ring	G. O. Draper	465,247	Dec. 15	1969	503	57	1529
Rail-support	C. M. Dyer	461,741	Oct. 20	1946	483	57	356
Rail-tie	W. G. Sears	444,910	Jan. 20	1511	389	54	311
Rails. Chair for girder	W. C. Wood	450,717	Sept. 15	1861	467	56	1441
Rails. Chair for girder	W. C. Wood	459,893	Sept. 22	2143	539	56	1503
Rails. Fastener for fish-plates for	J. S. Gary	449,115	Mar. 31	2086	754	54	1722
Rails. Joint or other fastening for tramway	R. Viol	449,003	Mar. 24	2945	746	54	1706
Rails. Machine for making point	E. H. Johnston	454,274	June 16	1634	429	55	1476
Rails. Making combined guard and guide	E. M. Turner and L. A. Brown	456,100	July 14	1256	331	56	248
Rails. Roll for utilizing old	H. Harris	451,002	Apr. 21	2115	521	55	426
Railway	H. Day	464,455	Dec. 1	686	168	57	1265
Railway	W. S. Herrington	456,818	July 28	2438	642 643	56	489
Railway	R. H. Little	449,126	Mar. 31	3002	758 759	54	1726
Railway	H. Taylor and D. E. Sherman	450,686	Apr. 21	1617	388	55	332
Railway	E. Wegmann, Jr., and C. J. Bates	446,106	Feb. 10	971	238	54	708
Railway alarm-signal	J. R. Jones and J. W. Scott	448,963	Mar. 24	2747	673 694	54	1667
Railway and contact device therefor. Electric	E. M. Bentley	446,376	Feb. 10	1432	351 352	54	796
Railway and toboggan-slide. Sinuous pleasure	H. Bormann	450,609	Apr. 21	1457	358	55	294
Railway and vehicle for railway transportation	E. G. Tobey	454,306	June 16	1683	441	55	1486
Railway and vehicle for railway transportation	E. G. Tobey	454,307	June 16	1685	441	55	1486
Railway appliance. Electric	F. E. Degenhardt	457,836	Aug. 18	1482	386 387	56	829
Railway-ballast from furnace-slag. Method of and apparatus for producing	J. W. Diebold	465,572	Dec. 22	2513	641 642	57	1642
Railway. Bicycle	L. C. D'Homerigne	456,215	July 21	1437	381	56	292

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Railway block-signal. Electric.....	J. D. Taylor.....	450,646	Apr. 21	1558	{ 374 375 }	55	320
Railway-brake. Electric.....	A. I. Ambler.....	461,770	Oct. 20	1994	{ 493 494 }	57	396
Railway-brake. Friction.....	P. Fabian.....	461,825	Oct. 27	2096	{ 517 518 }	57	423
Railway-brake operating by air pressure or vacuum.....	E. Hartmann.....	448,833	Mar. 24	2548	{ 639 640 }	54	1629
Railway brake-shoe.....	P. Reilly.....	446,236	Feb. 10	1222	299	54	754
Railway-brakes. Trussed bar for.....	S. Alley.....	461,776	Oct. 20	2010	495	57	398
Railway. Cable.....	G. W. Bowman.....	445,157	Jan. 27	1904	491	54	396
Railway. Cable.....	P. Noble.....	444,581	Jan. 13	949	246	54	196
Railway. Cable.....	G. C. Watriss and C. J. Kaighin.....	446,905	Feb. 24	2296	572	54	987
Railway. Cable street.....	L. M. Clement.....	446,221	Feb. 10	1173	287	54	744
Railway. Cable street.....	L. Heynemann.....	444,437	Jan. 13	714	187	54	149
Railway carriage. Elevated.....	J. N. Valley.....	456,867	July 28	2524	{ 663 664 }	56	504
Railway carriages. Brake for elevated.....	J. N. Valley.....	456,866	July 28	2523	663	56	504
Railway cattle-guard.....	F. G. Botsford.....	462,649	Nov. 3	670	169	57	680
Railway cattle-guard.....	J. T. Hall.....	446,228	Feb. 10	1183	290	51	746
Railway cattle-guard.....	J. T. Hall.....	453,808	June 9	989	257	55	1343
Railway cattle-guard.....	J. T. Hall.....	460,306	Sept. 29	2774	691	56	1629
Railway cattle-guard.....	P. Merrill.....	446,601	Feb. 17	1786	442	54	879
Railway cattle-guard.....	B. Wolhaupter.....	447,394	Mar. 3	196	51	54	1155
Railway-chair.....	T. Davies.....	454,834	June 23	2530	651	55	1650
Railway-chair.....	N. T. Frame.....	446,634	Feb. 17	1334	454	54	888
Railway-chair.....	M. Geng.....	458,230	Aug. 25	2126	551	56	954
Railway-chair.....	F. W. Parsons.....	465,492	Dec. 22	2370	607	57	1615
Railway-chair.....	G. W. Wells.....	449,867	Apr. 7	338	86	55	67
Railway chair and tie.....	W. Wenstrom.....	458,988	Sept. 1	685	167	56	1199
Railway-chair. Sectional.....	J. N. Akarman.....	458,209	Aug. 25	2083	539	56	950
Railway-chair spike.....	W. C. Wood.....	447,268	Feb. 24	2921	726	54	1105
Railway-chairs. Preventing displacement in sectional.....	J. N. Akarman.....	458,210	Aug. 25	2084	540	56	950
Railway-circuit for signaling and controlling trains.....	F. E. Kinsman.....	448,751	Mar. 24	2432	{ 608 609 }	54	1606
Railway-coach.....	J. P. Tillson.....	462,517	Nov. 3	463	113	57	619
Railway conductor. Electric.....	E. W. Mitchell.....	452,611	May 19	1888	475	55	947
Railway conductor. Electric.....	E. Thomason.....	446,483	Feb. 17	1615	396	54	846
Railway-conductor support. Electric.....	E. M. Bentley.....	459,737	Sept. 22	1901	{ 479 480 }	56	1455
Railway conductors. Crossing for electric.....	W. J. Silver.....	463,310	Nov. 17	1733	453	57	904
Railway conductors. System of electric.....	C. J. Van Depoele.....	458,867	Sept. 1	500	122	56	1160
Railway conduit and contact device. Electric.....	W. H. Knight.....	458,747	Sept. 1	299	73	56	1122
Railway. Conduit electric.....	E. M. Bentley.....	446,417	Feb. 17	1512	372	54	824
Railway conduit. Electric.....	E. M. Bentley.....	446,419	Feb. 17	1514	373	54	825
Railway conduit. Electric.....	F. O. Blackwell.....	449,196	Mar. 31	3114	786	54	1745
Railway conduit. Electric.....	W. Bradley.....	455,447	July 7	237	61	56	48
Railway conduit. Electric.....	F. E. Degenhardt.....	458,619	Sept. 1	111	25	56	1087
Railway conduit. Electric.....	E. E. Keller.....	458,630	Sept. 1	128	28	56	1091
Railway. Conduit electric.....	A. J. Robertson.....	462,672	Nov. 3	706	182	57	686
Railway conduit. Underground.....	C. C. Gilman.....	446,861	Feb. 24	2204	548	54	971
Railway conduit. Underground.....	E. E. Keller.....	460,780	Oct. 6	394	96	57	77
Railway-conduits. Apparatus for cleaning.....	W. Heckert.....	447,181	Feb. 24	2765	{ 684 685 }	54	1074
Railway construction.....	J. L. Silsbee.....	458,196	Aug. 25	2059	{ 533 534 }	56	946
Railway converter system. Electric.....	M. W. Dewey.....	465,359	Dec. 15	2169	555	57	1565
Railway cross-tie.....	A. E. Roberts.....	456,343	July 21	1645	435	56	331
Railway cross-tie.....	A. E. Roberts.....	456,344	July 21	1647	436	56	332
Railway-crossing.....	E. B. Entwistle.....	447,130	Feb. 24	2649	657	54	1053
Railway-crossing.....	J. Jones. (Reissue).....	11,151	Apr. 28	2814	696	55	569
Railway-crossing alarm-signal.....	W. E. Burden.....	464,760	Dec. 8	1169	291	57	1366
Railway crossing. Cable.....	C. Vogel.....	450,117	Apr. 7	691	175	55	135
Railway crossing. Conduit.....	E. Samuel.....	456,434	July 21	1807	478	56	361
Railway-crossing gate.....	F. C. Crowe.....	462,216	Oct. 27	2704	682	57	539
Railway-crossing gate.....	G. E. Miller.....	464,461	Dec. 1	694	170	57	1267
Railway-crossing gate.....	M. T. Sheehan.....	465,032	Dec. 15	1619	412	57	1463
Railway-crossing gate.....	F. M. Spaulding.....	446,082	Feb. 10	931	228	54	701
Railway-crossing gate.....	F. M. Spaulding.....	446,083	Feb. 10	933	228	54	701
Railway-crossing gate.....	T. Stebbins.....	456,914	July 28	2610	655	56	520
Railway-crossing signal.....	B. F. Teal.....	464,048	Dec. 1	59	17	57	1148
Railway-crossing signal.....	W. J. Butler.....	466,155	Dec. 29	3455	683	57	1894
Railway-crossing signal.....	H. W. Ragdale.....	464,145	Dec. 1	206	49	57	1176
Railway crossing. Street.....	V. Angerer.....	449,433	Mar. 31	3533	890	54	1822
Railway-crossings. Automatic electric safety system for.....	E. Deming.....	452,874	May 26	2301	{ 580 581 }	55	1035
Railway-crossings. Automatic signal for.....	A. W. Hall.....	444,700	Jan. 13	1122	289	54	230
Railway curve. Cable.....	C. Vogel.....	450,118	Apr. 7	692	175	55	135
Railway danger-alarm.....	D. J. Haynes and O. Allen.....	459,456	Sept. 15	1438	{ 361 362 }	56	1361
Railway drawing-head.....	S. W. Hildreth.....	449,477	Mar. 31	3605	{ 907 908 }	51	1836
Railway drawing-head.....	W. C. Peirce.....	447,200	Feb. 24	2799	692	54	1080
Railway drill. Electric.....	H. P. Bradford.....	464,673	Dec. 8	1024	257	57	1340
Railway driving mechanism. Cable.....	J. Walker.....	460,794	Oct. 6	411	100	57	81
Railway earth-scraper.....	W. Gravitt.....	452,130	May 12	1109	282	55	791
Railway. Electric.....	W. H. Applegate.....	465,613	Dec. 22	2580	656	57	1654
Railway. Electric.....	E. M. Bentley.....	444,740	Jan. 13	1196	310	54	242
Railway. Electric.....	E. M. Bentley.....	449,792	Apr. 7	234	59	60	55
Railway. Electric.....	E. M. Bentley.....	462,231	Nov. 3	10	2	57	554
Railway. Electric.....	F. O. Blackwell.....	452,160	May 12	1156	{ 292 293 }	55	799
Railway. Electric.....	F. O. Blackwell.....	454,023	June 16	1273	331	55	1406

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Railway. Electric.....	F. S. Culver.....	450,613	Apr. 21	1467	{ 360 361	55	296
Railway. Electric.....	M. W. Dewey.....	452,099	May 12	1057	{ 267 268	55	781
Railway. Electric.....	L. O. Dion.....	458,844	Sept. 1	460	{ 110 111	56	1154
Railway. Electric.....	T. A. Edison.....	448,778	Mar. 24	2472	618	54	1614
Railway. Electric.....	J. Emmner, Jr.....	465,844	Dec. 29	2931	750	57	1732
Railway. Electric.....	J. B. Entz.....	448,328	Mar. 17	1749	{ 441 442 443	54	1470
Railway. Electric.....	G. F. Green.....	465,407	Dec. 15	2237	574	57	1579
Railway. Electric.....	R. M. Hunter.....	445,674	Feb. 3	268	70	54	565
Railway. Electric.....	R. M. Hunter.....	445,952	Feb. 3	708	172	54	651
Railway. Electric.....	R. M. Hunter.....	446,833	Feb. 17	2148	534	54	952
Railway. Electric.....	R. M. Hunter.....	446,834	Feb. 17	2150	534	54	952
Railway. Electric.....	R. M. Hunter.....	447,283	Feb. 24	2941	731	54	1110
Railway. Electric.....	R. M. Hunter.....	448,523	Mar. 17	2045	512	54	1525
Railway. Electric.....	R. M. Hunter.....	448,618	Mar. 17	2199	551	54	1555
Railway. Electric.....	R. M. Hunter.....	448,653	Mar. 24	2367	569	54	1574
Railway. Electric.....	R. M. Hunter.....	449,797	Apr. 7	241	61	55	48
Railway. Electric.....	R. M. Hunter.....	450,074	Apr. 7	626	158	55	122
Railway. Electric.....	R. M. Hunter.....	450,586	Apr. 14	1410	348	55	278
Railway. Electric.....	R. M. Hunter.....	451,154	Apr. 28	2340	581	55	479
Railway. Electric.....	R. M. Hunter.....	451,402	Apr. 28	2732	678	55	553
Railway. Electric.....	R. M. Hunter.....	451,692	May 5	382	94	55	652
Railway. Electric.....	R. M. Hunter.....	452,920	May 26	2379	{ 602 603	55	1050
Railway. Electric.....	R. M. Hunter.....	455,796	July 14	818	{ 213 214	56	166
Railway. Electric.....	R. M. Hunter.....	456,513	July 21	1928	510	56	384
Railway. Electric.....	R. M. Hunter.....	456,514	July 21	1932	510	56	385
Railway. Electric.....	R. M. Hunter.....	457,736	Aug. 11	1321	344	56	790
Railway. Electric.....	R. M. Hunter.....	459,815	Sept. 22	2017	506	56	1477
Railway. Electric.....	J. Jones.....	453,710	June 9	845	218	55	1315
Railway. Electric.....	W. H. Knight.....	447,332	Mar. 3	81	22	54	1133
Railway. Electric.....	W. H. Knight.....	455,340	July 7	55	16	56	14
Railway. Electric.....	W. H. Knight.....	455,341	July 7	62	16, 17	56	16
Railway. Electric.....	W. H. Knight.....	455,342	July 7	64	17	56	17
Railway. Electric.....	W. H. Knight.....	458,583	Sept. 1	53	12	56	1076
Railway. Electric.....	F. Mansfield.....	461,685	Oct. 20	1857	{ 460 461	57	369
Railway. Electric.....	G. W. McNear.....	462,014	Oct. 27	2286	591	57	479
Railway. Electric.....	J. F. Munroe.....	455,233	June 30	3246	824	55	1796
Railway. Electric.....	J. F. Munroe.....	455,234	June 30	3248	824	55	1796
Railway. Electric.....	H. S. Pryn.....	465,886	Dec. 29	3008	767	57	1747
Railway. Electric.....	E. W. Rice, Jr.....	455,454	July 7	245	62	56	49
Railway. Electric.....	I. Robbins.....	460,887	Oct. 6	547	138	57	107
Railway. Electric.....	N. Seibert.....	446,475	Feb. 17	1603	393	54	843
Railway. Electric.....	H. A. Seymour.....	458,665	Sept. 1	185	43, 44	56	1100
Railway. Electric.....	J. B. Sheldon and D. J. Murnane.....	462,595	Nov. 3	589	145	57	604
Railway. Electric.....	S. H. Short.....	461,690	Oct. 20	1864	462	57	371
Railway. Electric.....	B. R. Shover and W. C. Dickson.....	461,057	Oct. 13	794	203	57	160
Railway. Electric.....	M. H. Smith.....	457,382	Aug. 11	775	199	56	684
Railway. Electric.....	C. W. Thomas.....	462,177	Oct. 27	2633	{ 656 657 658 659	57	527
Railway. Electric.....	W. B. Vansize.....	461,969	Oct. 27	2322	576	57	467
Railway. Electric.....	S. E. Wheatley and J. W. Schlosser.....	457,240	Aug. 4	485	28, 29	56	624
Railway. Electric.....	W. C. Wright.....	458,931	Sept. 1	600	{ 147 148	56	1181
Railway. Electric.....	W. C. Wright.....	458,932	Sept. 1	603	148	56	1182
Railway. Electrical.....	G. F. Green.....	465,432	Dec. 15	2272	573	57	1587
Railway. Elevated.....	L. H. Goodwin.....	445,467	Jan. 27	2351	611	54	485
Railway. Elevated.....	J. P. Harper.....	458,846	Sept. 1	463	111	56	1154
Railway. Elevated.....	M. Jacobs.....	448,571	Mar. 17	2118	530	54	1539
Railway. Elevated.....	J. B. Mahana.....	461,764	Oct. 20	1987	491	57	394
Railway. Elevated.....	J. N. Valley.....	446,272	Feb. 10	1277	313	54	764
Railway. Elevated.....	J. N. Valley.....	446,273	Feb. 10	1279	313	51	765
Railway. Elevated.....	J. N. Valley. (Reissue).....	11,158	Apr. 21	2128	525	55	428
Railway. Elevated.....	D. B. Weaver.....	447,172	Feb. 24	2751	{ 680 681	54	1071
Railway-fastening for metallic ties.....	R. Morrell.....	457,500	Aug. 11	960	243	56	718
Railway fish-plate.....	M. G. Hubbard.....	445,985	Dec. 29	3169	813	57	1778
Railway-frog.....	N. W. Boyd.....	462,297	Nov. 3	124	31	57	575
Railway-frog.....	M. A. Dudley.....	447,235	Feb. 24	2865	711	54	1094
Railway-frog.....	A. M. Grubbs.....	463,728	Nov. 24	2417	634	57	1042
Railway-frog.....	D. Horrie.....	452,672	May 19	1981	497	55	955
Railway-frog.....	P. P. Merriman.....	464,032	Dec. 1	40	11	57	1141
Railway-frog.....	G. N. Moats and C. R. Crawshaw.....	445,839	Feb. 3	512	132	54	117
Railway-frog.....	M. A. Rollmann.....	461,511	Oct. 20	1588	388	57	319
Railway-frog. Spring-rail.....	N. W. Boyd.....	462,296	Nov. 3	121	31	57	571
Railway frogs and points. Forming.....	J. W. Close.....	455,306	July 7	15	4	56	6
Railway-frogs. Guard-rail or foot-guard for.....	J. E. Bowes and L. H. Harris.....	444,518	Jan. 13	849	221	54	177
Railway-gate.....	O. W. Brockway.....	459,212	Sept. 8	1070	255	56	1256
Railway-gate.....	F. C. Cash.....	466,156	Dec. 29	3457	884	57	1831
Railway-gate.....	W. H. Close.....	463,485	Nov. 17	2009	{ 525 526	57	957
Railway-gate.....	E. L. Crocker.....	457,043	Aug. 4	161	40	56	564
Railway-gate.....	O. W. Johnson.....	450,235	Apr. 14	888	221	55	177
Railway-gate.....	O. W. Johnson.....	454,955	June 30	2763	704	55	1701
Railway-gate.....	C. P. Lancaster.....	463,994	Nov. 24	2336	735	57	1122

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Railway-gate	A. J. McDonald	447,080	Feb. 24	2578	640	54	1039
Railway-gate	N. Newman	452,190	May 12	1208	306	55	810
Railway-gate	H. O. Wood and S. S. Smith	452,301	May 12	1375	342	55	841
Railway-gate. Automatic	J. Bolt	457,247	Aug. 4	498	132	56	626
Railway-gate. Automatic	S. G. Burrell	462,300	Nov. 3	135	33	57	576
Railway-gate. Automatic	E. A. Chapel	458,267	Aug. 25	2194	536	56	970
Railway-gate. Automatic	F. Guild	466,165	Dec. 29	3470	886	57	1837
Railway-gate crossing for overhead lines	E. Thomson	450,687	Apr. 21	1620	388 389	55	333
Railway-gate lock	M. B. Mills	454,983	June 30	2817	717	55	1712
Railway-gate motor	A. J. McDonald and R. B. Brent	447,079	Feb. 24	2577	639	54	1039
Railway-gate-operating device	J. Stecker and F. G. Nordmann	463,205	Nov. 17	1569	409	57	872
Railway grip. Cable	J. C. H. Stut	454,235	June 16	1576	415 416	55	1465
Railway. Hippodrome aerial	J. B. Gerber	461,102	Oct. 13	855	220	57	172
Railway-indicator	E. G. Rowen	466,141	Dec. 29	3437	879 880	57	1830
Railway-joint	A. Preiss	448,257	Mar. 17	1612	411	54	1443
Railway-joint	W. H. Sutton	451,164	Apr. 28	2356	585	55	483
Railway motor. Electric	N. C. Bassett	457,102	Aug. 4	262	68, 69	56	583
Railway motor. Electric	C. J. Van Depoele	448,561	Mar. 17	2096	525 526	54	1536
Railway motor. Electric	C. J. Van Depoele	462,751	Nov. 10	834	219	57	721
Railway motor system. Reciprocating electric	C. J. Van Depoele	450,542	Apr. 14	1349	332 333	55	266
Railway-motors. Life-guard for	H. E. Harris	462,814	Nov. 10	946	246	57	743
Railway or tramway fish-joint	G. T. Stevens and W. R. Carruthers	462,031	Oct. 27	2416	599	57	485
Railway. Overhead	J. W. Moyer	459,566	Sept. 15	1613	405	56	1394
Railway. Overhead	J. W. Moyer and G. P. Jackson	448,157	Mar. 10	1428	364 501	54	1399
Railway plant. Elevated	S. V. Day	458,116	Aug. 18	1932	502 503	56	915
Railway. Pleasure	H. Bormann	450,658	Apr. 21	1575	378	55	324
Railway plow. Electric	W. H. Knight	455,343	July 7	66	17	56	17
Railway. Pneumatic	E. L. Sharpneck and J. W. Bailey	449,594	Mar. 31	3777	948	54	1667
Railway. Pneumatic	H. W. Wiley	454,318	June 16	1701	445	55	1489
Railway pole. Electric	F. Milliken	451,832	May 5	588	145	55	691
Railway. Power and gravity	S. E. Jackman	452,791	May 26	2177	545 546	55	1012
Railway-rail	B. F. Curtis	460,742	Oct. 6	338	83	57	67
Railway-rail	J. E. Mandeville	451,563	May 5	178	43	55	614
Railway-rail	E. G. Patterson	458,748	Sept. 1	301	74	56	1123
Railway-rail	M. M. Suppes	460,063	Sept. 22	2391	597 598	56	1518
Railway-rail	M. M. Suppes	460,064	Sept. 22	2392	598 599	56	1518
Railway rail and chair. Street	W. H. Wright	446,589	Feb. 17	1779	437	51	877
Railway rail and pavement. Street	P. Bargion	452,333	May 12	1443	357	55	854
Railway rail and sleeper or stringer	L. Bergmark	448,628	Mar. 24	2231	560	54	1568
Railway-rail brace	W. Goldie	457,585	Aug. 11	1084	277	56	744
Railway-rail chair	F. Pelton	461,773	Oct. 20	2006	495	57	398
Railway-rail chair	H. H. C. Sintzenich	451,386	Apr. 28	2708	672	55	549
Railway-rail clamp	W. H. Brooks	459,741	Sept. 22	1905	480	56	1456
Railway-rail-cleaning machine	J. Seror	444,675	Jan. 13	1087	281 282	54	223
Railway-rail connection	L. Adams	460,171	Sept. 29	2566	640	56	1590
Railway-rail coupling	J. T. Wicker	451,544	May 5	149	37	55	608
Railway-rail crossing	J. F. Hudec	445,781	Feb. 3	442	110	54	598
Railway-rail fastener	J. S. Peirce	464,180	Dec. 1	259	64	57	1185
Railway-rail fastening	L. Scofield, Sr.	461,717	Oct. 20	1909	472	57	379
Railway-rail fastening and support	G. B. Fisher	452,863	May 26	2225	573	55	1032
Railway-rail fastening for metallic ties	R. Morrell	457,518	Aug. 11	980	250	56	723
Railway-rail fastening to metal ties	G. W. Young	453,099	May 26	2667	677	55	1111
Railway-rail joint	A. G. Edmondson	464,699	Dec. 8	1074	266	57	1348
Railway-rail joint	D. W. Miller	452,939	May 26	2424	612	55	1059
Railway-rail joint	R. Morrell	453,344	June 2	257	68	55	1197
Railway-rail joint	A. Nentscher	444,251	Jan. 6	435	109	54	85
Railway-rail joint	S. F. Stever	463,082	Nov. 10	1364	353	57	825
Railway-rail joint	V. A. Tyler	451,646	May 5	310	75	55	637
Railway-rail joint	J. B. Walker	446,763	Feb. 17	2040	508	54	920
Railway-rail-joint coupling	G. Weeks	463,258	Nov. 17	1651	429 430	57	888
Railway-rail joints. Bed-plate for	J. W. Walsh	459,338	Sept. 8	1242	305	56	1315
Railway-rail joints. Combined chair and fish-plate for	H. B. Nickerson	453,157	May 26	2774	698	55	1126
Railway rail tie and track fastener	W. G. Sears	444,909	Jan. 20	1509	388	54	311
Railway-rails. Chair-plate for compound	P. Bargion	461,729	Oct. 20	1927	477	57	382
Railway-rails. Combined support and fastening for	T. J. Bush	446,282	Feb. 10	1291	316	54	767
Railway-rails. Fastening and support for	J. Grimme	462,080	Oct. 27	2179	615	57	497
Railway-rails from spreading. Device to prevent	C. Keeler	445,449	Jan. 27	2330	605	54	480
Railway-rails. Making	M. M. Suppes	460,096	Sept. 22	2444	611	56	1558
Railway-rails. Roll for reducing old	C. R. Bryson	452,095	May 12	1052	266	55	780
Railway-rails to longitudinal sleepers. Attaching	J. P. E. C. Stromeyer	457,735	Aug. 11	1320	343	56	790
Railway-scraper	O. F. Jordan and R. Potts	417,777	Mar. 10	818	203	51	1280
Railway sheaves. Ball-bearing for cable	C. A. Burton	458,517	Aug. 25	2602	633	56	1047
Railway-signal	E. C. Carter	448,773	Mar. 24	2461	615	51	1612
Railway-signal	J. B. Carwell	465,752	Dec. 22	2766	712	57	1695
Railway-signal	N. B. Cregier	444,819	Jan. 20	1310	341	54	273
Railway-signal	D. Grant	463,122	Nov. 10	1439	372	57	839
Railway-signal	W. P. Hall	447,318	Mar. 3	58	16	54	1128
Railway-signal	H. C. Horstmann	459,633	Sept. 15	1736	436	56	1416
Railway-signal	L. F. Munger	457,855	Aug. 18	1519	395	56	836
Railway-signal	H. B. Potter	464,990	Dec. 15	1337	388	57	1448

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Railway-signal	W. Raab	454,767	June 23	2407	{ 618 619 617 618	55	1630
Railway-signal	E. J. Samuels and F. E. Behrendt	463,691	Nov. 24	2358	{ 382 159 337 534	57	1031
Railway-signal	C. Selden and G. R. Ott	452,394	May 19	1510	{ 382 80 56 55	55	883
Railway-signal	W. C. Serrell	457,135	Aug. 4	305	{ 56 55 55 56	56	592
Railway-signal alarm. Electric	N. S. Chapman	453,578	June 2	623	{ 55 55 56 56	55	1265
Railway-signal. Automatic	J. W. Richardson	452,285	May 12	1352	{ 56 56 56 56	55	838
Railway-signal. Automatic	A. B. Snyder	458,198	Aug. 25	2062	{ 127 128 181 182	55	99
Railway-signal. Automatic	C. W. Wilhelm	449,990	Apr. 7	510	{ 419 420 779 575	57	1235
Railway-signal. Electric	C. E. Buzzell	464,490	Dec. 8	743	{ 261 262 834 968	54	864
Railway-signal. Electric	W. S. and M. C. Cook	446,546	Feb. 17	1710	{ 220 676 609 16	54	864
Railway-signal. Electric	W. F. Z. Desant	460,525	Sept. 29	3116	{ 335 336 379 55	56	1696
Railway-signal. Electric	E. T. Harvey	446,917	Feb. 24	2314	{ 54 54 54 54	54	990
Railway-signal. Electric	W. W. Rosenfield	447,906	Mar. 10	1042	{ 111 112 1345 1579	54	1322
Railway-signal. Electric	W. Stevens and H. J. Hovey	455,266	June 30	3293	{ 262 834 968 220	55	1804
Railway-signal. Electric	S. Tompkins	449,639	Mar. 31	3865	{ 55 55 55 55	54	1884
Railway-signal. Electric	W. C. Walter	451,999	May 12	862	{ 55 55 55 55	55	749
Railway-signal. Electric	W. C. Walter	453,097	May 26	2682	{ 55 55 55 55	55	1110
Railway signal-torch	W. C. Beckwith	448,906	Mar. 24	2664	{ 609 16 54 525	54	1650
Railway-signals. Automatic circuit-closing device for	I. W. Ley and R. O'Toole	445,564	Feb. 3	69	{ 1486 656 160 54	54	525
Railway-signals. Track-instrument for	M. S. Conley	446,403	Feb. 10	1486	{ 366 160 54 54	54	806
Railway signaling apparatus	J. M. Brohard	445,918	Feb. 3	656	{ 160 54 54 54	54	641
Railway signaling apparatus	J. D. Taylor	450,645	Apr. 21	1555	{ 374 255 1006 779	55	320
Railway signaling apparatus. Automatic	S. J. Doucet	452,072	May 12	1006	{ 254 55 55 55	55	773
Railway signaling apparatus. Electrical	W. F. Z. Desant	460,524	Sept. 29	3114	{ 779 55 55 55	56	1695
Railway signaling device	W. A. Luby	453,447	June 2	433	{ 111 112 335 336	55	1230
Railway signaling device	J. C. O'Neil	452,281	May 12	1345	{ 379 55 55 55	55	837
Railway. Sinuous pleasure	H. Bormann	450,660	Apr. 21	1579	{ 379 55 55 55	55	325
Railway. Sliding	C. A. Barre	465,151	Dec. 15	1827	{ 463 464 540 1060	57	1501
Railway-spike	W. R. Funk	457,267	Aug. 4	540	{ 141 276 56 56	56	632
Railway-spike	W. Goldie	457,582	Aug. 11	1060	{ 276 56 56 56	56	743
Railway-spike	H. Greer	455,900	July 14	971	{ 253 155 603 743	56	195
Railway-spike	W. J. Hammond and J. Gordon	451,859	May 5	625	{ 155 55 603 743	55	697
Railway-spike	D. A. Hegarty	462,045	Oct. 27	2433	{ 603 57 191 99	57	428
Railway-spike	J. F. Le Baron	453,648	June 9	743	{ 191 56 28 28	55	1296
Railway-spike	D. Servis	455,362	July 7	99	{ 28 56 1171 1779	56	23
Railway-spike	C. D. Walcott	461,300	Oct. 13	1171	{ 298 57 465 383	57	*234
Railway-spike extractor	J. F. Tesa	458,005	Aug. 18	1779	{ 465 56 57 57	56	884
Railway-spike puller or extractor	P. Fowler	463,145	Nov. 17	1475	{ 383 55 592 593	57	854
Railway-spikes. Apparatus for making	E. E. Angell	454,697	June 23	2308	{ 592 593 142 143	55	1610
Railway splice-bars. Making	M. W. Thomson	460,899	Oct. 6	564	{ 142 143 519 2084	57	110
Railway stock-guard	S. L. Shellenberger	446,793	Feb. 17	2084	{ 519 228 229 229	51	939
Railway. Street	W. L. Judson	464,614	Dec. 8	926	{ 228 229 229 230	57	1322
Railway. Street	W. L. Judson	464,615	Dec. 8	930	{ 229 230 230 230	57	1323
Railway. Street	W. L. Judson	464,616	Dec. 8	933	{ 230 230 38.39 691	57	1323
Railway superstructure. Elevated	E. S. Shaw	453,268	June 2	138	{ 230 691 692 348	55	1174
Railway surface cattle-guard	J. T. Hall	460,307	Sept. 29	2775	{ 691 692 54 348	56	1630
Railway-switch	O. Bixler	448,112	Mar. 10	1361	{ 348 90 808 206	54	1385
Railway-switch	N. Brunker	453,405	June 2	318	{ 90 808 206 644	55	1213
Railway-switch	T. L. Carleton	453,690	June 9	808	{ 206 159 727 81	55	1309
Railway-switch	M. Charlton	464,428	Dec. 1	644	{ 159 727 21 81	57	1257
Railway-switch	J. Christiansen	465,731	Dec. 22	2838	{ 727 21 264 633	57	1706
Railway-switch	D. M. Church	464,061	Dec. 1	81	{ 21 264 633 1385	57	1152
Railway-switch	A. M. Grubbs	444,633	Jan. 13	1015	{ 264 633 358 504	54	209
Railway-switch	A. M. Grubbs	463,727	Nov. 21	2416	{ 633 358 504 570	57	1042
Railway-switch	R. H. Hawkes	457,776	Aug. 18	1385	{ 358 504 570 514	56	811
Railway-switch	M. Hynes	446,750	Feb. 17	2021	{ 504 570 514 62	54	925
Railway-switch	M. Hynes	463,579	Nov. 17	2165	{ 570 514 62 98	57	987
Railway-switch	L. Lewis and M. H. Hosie	452,712	May 19	2045	{ 514 62 98 113	55	978
Railway-switch	J. N. Marso	456,961	Aug. 4	62	{ 15 24 28 435	56	545
Railway-switch	W. R. McGibony	451,507	May 5	98	{ 24 28 435 436	55	597
Railway-switch	T. S. McKinnell	457,004	Aug. 4	113	{ 28 435 436 93	56	555
Railway-switch	R. Paskel	454,290	June 16	1660	{ 435 436 548 419	55	1481
Railway-switch	S. B. Sabens	449,704	Apr. 7	93	{ 24 548 419 1605	55	20
Railway-switch	F. F. Schmidt	451,076	Apr. 28	2216	{ 548 419 1605 1606	55	454
Railway-switch	A. A. Strom	457,904	Aug. 18	1605	{ 419 1605 1606 1009	56	850
Railway-switch	A. A. Strom	457,905	Aug. 13	1606	{ 419 263 260 554	56	850
Railway-switch	R. Woods	453,825	June 9	1009	{ 263 260 554 334	55	1347
Railway switch and crossing. Combined	R. Rueping	462,852	Nov. 10	1009	{ 260 554 334 335	57	755
Railway switch and lock apparatus	H. S. Pfeil	463,543	Nov. 17	2162	{ 554 334 335 335	51	974
Railway switch and signal. Connected	M. Wuerpel	450,548	Apr. 14	1358	{ 334 335 254 381	55	268
Railway-switch appliance	J. J. Hill	450,329	Apr. 14	1031	{ 254 381 25 99	55	204
Railway-switch. Automatic	W. H. Davis	461,495	Oct. 20	1554	{ 381 25 99 25	57	313
Railway-switch. Automatic	P. H. Herndon	464,071	Dec. 1	99	{ 25 99 676 263	57	1156
Railway-switch. Automatic	E. S. Kase and A. F. Borden	448,923	Mar. 24	2686	{ 676 263 54 1026	54	1656
Railway-switch. Automatic	J. McCarthy	457,547	Aug. 11	1026	{ 263 54 202 202	56	732
Railway-switch. Automatic	E. Shoup and G. F. Trudeau	461,056	Oct. 13	792	{ 202 202 57 159	57	159

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Railway-switch. Automatic.....	J. R. Wigginton.....	448,171	Mar. 10	1450	{ 370 371	54	1403
Railway-switch. Automatic lock-gear.....	G. Broach.....	466,295	Dec. 29	3673	{ 939 939	57	1874
Railway switch. Automatic street.....	W. T. Merriman.....	460,146	Sept. 29	2528	{ 629 629	56	1581
Railway switch. Electric.....	F. O. Blackwell.....	463,766	Nov. 24	2468	{ 645 645	57	1052
Railway switch. Electric.....	M. Kerstein.....	466,101	Dec. 29	3366	{ 860 860 595 596	57	1816
Railway switch. Electric.....	H. C. Spaulding.....	462,022	Oct. 27	2400	{ 595 596	57	482
Railway-switch lock.....	J. V. Ericson.....	462,822	Nov. 10	909	{ 251 251	57	748
Railway-switch. Portable.....	W. O. Cooke.....	452,261	May 12	1319	{ 330 330	55	832
Railway-switch. Self-closing.....	J. H. Whittington, Jr.....	460,516	Sept. 29	3101	{ 776 776	56	1693
Railway-switch stand.....	A. A. Gibson.....	452,543	May 19	1784	{ 449 449	55	926
Railway-switch stand.....	W. C. Meeker.....	453,245	June 2	102	{ 22 22	55	1167
Railway-switch stand.....	J. T. Richardson.....	456,125	July 14	1294	{ 340 340	56	256
Railway switch. Street.....	A. Machalup.....	458,790	Sept. 1	362	{ 88 88	56	1135
Railway switch. Street.....	H. H. Olds.....	457,404	Aug. 11	803	{ 206 206	56	690
Railway switch. Street.....	W. H. Snyder.....	461,786	Oct. 20	2025	{ 500 500	57	401
Railway switch. Street.....	C. A. Ward and M. M. Martin.....	451,093	Apr. 28	2237	{ 554 554	55	459
Railway-switches and draw-bridges. Automatic electric safety system for.....	E. Deming.....	452,873	May 26	2299	{ 578 579 580	55	1035
Railway switches and signals. Interlocking appliance for.....	I. Randolph.....	464,697	Dec. 8	1069	{ 265 266	57	1347
Railway-switches. Appliance for moving.....	L. Washington and W. H. Roberts.....	446,904	Feb. 24	2295	{ 571 571	54	986
Railway-switches. Device for operating.....	W. A. Brown.....	463,136	Nov. 17	1459	{ 378 378	57	852
Railway-switches. Mechanism for operating and controlling.....	J. N. Strong.....	460,668	Oct. 6	211	{ 54, 55 54, 55	57	44
Railway switching device. Street.....	R. T. Smith.....	459,418	Sept. 15	1381	{ 342 342	56	1350
Railway switching device. Street.....	R. T. Smith.....	459,419	Sept. 15	1382	{ 347 347	56	1351
Railway system. Electric.....	H. C. Camp.....	462,688	Nov. 10	748	{ 194 195	57	703
Railway system. Electric.....	L. O. Dion.....	464,557	Dec. 8	845	{ 208 209	57	1305
Railway system. Electric.....	C. K. Harding.....	451,637	May 5	298	{ 72, 73 72, 73	55	635
Railway system. Electric.....	W. H. Knight.....	458,582	Sept. 1	52	{ 11 11	56	1076
Railway system. Electric.....	M. Shoemaker.....	457,870	Aug. 18	1545	{ 401 402	56	841
Railway system. Electric.....	C. J. Van Depoele.....	447,215	Feb. 24	2826	{ 701 702	54	1086
Railway system. Electric.....	C. J. Van Depoele.....	448,563	Mar. 17	2104	{ 527 528	54	1537
Railway system. Electric.....	D. G. Weems.....	452,741	May 19	2097	{ 527 527	55	988
Railway system. Electric.....	S. E. Wheatley and J. W. Schlosser.....	457,944	Aug. 18	1678	{ 439 440	56	865
Railway system. Electric.....	S. P. Wilcox and J. D. Partello.....	455,956	July 14	1057	{ 277 278	56	209
Railway system. Electric.....	G. T. Woods.....	463,020	Nov. 10	1262	{ 327 328	57	805
Railway system. Electrical.....	S. F. B. Morse.....	449,227	Mar. 31	3155	{ 795 795	54	1753
Railway system. Pneumatic.....	G. L. Du Laney.....	450,700	Apr. 21	1639	{ 393 394	55	336
Railway-tanks. Water-elevator for.....	D. P. Burdon.....	460,844	Oct. 6	474	{ 120 121 121	57	94
Railway-tie.....	T. Brown.....	451,804	May 5	548	{ 135 135	55	683
Railway-tie.....	A. G. Budington.....	464,424	Dec. 1	640	{ 158 158	57	1256
Railway-tie.....	J. A. Carl.....	464,552	Dec. 8	838	{ 207 207	57	1304
Railway-tie.....	E. Dietrich.....	450,145	Apr. 14	734	{ 184 184	55	149
Railway-tie.....	A. B. Fisher.....	461,571	Oct. 20	1677	{ 411 411	57	336
Railway-tie.....	L. L. Frost.....	451,120	Apr. 28	2277	{ 564 564	55	467
Railway-tie.....	C. P. Hammond.....	463,045	Nov. 10	1302	{ 337 337	57	812
Railway-tie.....	J. W. Hollin and T. B. Smith.....	444,439	Jan. 13	717	{ 189 189	54	150
Railway-tie.....	C. P. Howell.....	456,096	July 14	1251	{ 329 329	56	246
Railway-tie.....	H. I. Jeffers.....	445,274	Jan. 27	2084	{ 538 538	54	431
Railway-tie.....	H. I. Jeffers.....	445,275	Jan. 27	2085	{ 538 538	54	431
Railway-tie.....	J. H. Lynch.....	462,717	Nov. 10	785	{ 205 205	57	710
Railway-tie.....	J. Moser and E. Moeckel.....	465,874	Dec. 29	2976	{ 760 760	57	1740
Railway-tie.....	E. Robinson.....	447,356	Mar. 3	127	{ 35 35	54	1141
Railway-tie.....	H. V. and T. Slutz.....	447,781	May 5	517	{ 128 128	55	676
Railway-tie.....	B. Smith.....	451,205	Apr. 28	2585	{ 638 638	55	526
Railway-tie.....	P. H. Southward.....	453,721	June 9	858	{ 222 222	55	1318
Railway-tie.....	W. B. Teall.....	464,309	Dec. 1	484	{ 116 116	57	1226
Railway-tie.....	D. Y. Wilson.....	445,325	Jan. 27	2149	{ 556 557	54	445
Railway-tie.....	J. C. Wolfe.....	464,051	Dec. 1	67	{ 19 19	57	1150
Railway tie and chair.....	T. S. Brooks.....	466,218	Dec. 29	3549	{ 908 908	57	1851
Railway tie and chair. Metallic.....	H. P. Sweet.....	449,899	Feb. 24	2286	{ 569 569	54	985
Railway-tie and fastener.....	D. Y. Wilson.....	445,326	Jan. 27	2151	{ 557 557	54	445
Railway-tie and fastening.....	C. P. Hammond.....	463,046	Nov. 10	1303	{ 337 338	57	813
Railway-tie and rail-fastening. Metallic.....	J. B. Morris.....	455,537	July 7	383	{ 98 98	56	75
Railway-tie and rail-fastening. Metallic.....	E. L. Taylor.....	461,775	Oct. 20	2009	{ 495 495	57	398
Railway-tie and rail-securing device.....	O. M. Knox.....	462,716	Nov. 10	764	{ 204 204	57	710
Railway-tie. Metallic.....	I. L. Blakeslee.....	450,132	Apr. 14	719	{ 180 180	55	146
Railway-tie. Metallic.....	H. D. Dasher.....	450,601	Apr. 14	1440	{ 354 354	55	283
Railway-tie. Metallic.....	E. D. De Clements.....	446,405	Feb. 10	1490	{ 366 366	51	807
Railway-tie. Metallic.....	T. R. Dunning.....	450,739	Apr. 21	1684	{ 408 408	55	344
Railway-tie. Metallic.....	W. P. Hall.....	462,900	Nov. 10	1067	{ 282 282	57	770
Railway-tie. Metallic.....	J. W. Hardy and W. O. L. Jewett.....	465,263	Dec. 15	1998	{ 511 511	57	1534
Railway-tie. Metallic.....	J. F. Harris.....	461,261	Oct. 13	1112	{ 283 283	57	221
Railway-tie. Metallic.....	F. H. Hicks.....	466,168	Dec. 29	3475	{ 888 888	57	1838
Railway-tie. Metallic.....	R. Morrell.....	457,517	Aug. 11	979	{ 250 250	56	723
Railway-tie. Metallic.....	E. Saunders.....	450,498	Apr. 14	1296	{ 317 317	55	255
Railway-tie. Metallic.....	E. Saunders.....	463,456	Nov. 17	1960	{ 512 512	57	948

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Railway-tie plate.	W. Goldie	457,584	Aug. 11	1083	277	56	744
Railway-tie. Street.	C. A. Beach	448,005	Mar. 10	1211	308	54	1355
Railway-ties. Manufacture of.	T. J. Jones, Jr.	455,337	July 7	50	15	56	13
Railway-ties or sleepers. Construction of.	C. D. Kubach	445,063	Jan. 20	1750	451	54	358
Railway-ties. Wear-plate for.	M. W. Perkins	454,594	June 23	2151	555	55	1579
Railway time-signal.	C. Barry	414,327	Jan. 6	541	140	54	108
Railway time-signal.	O. V. Blazier	451,191	Apr. 28	2424	539	55	491
Railway time-signal.	J. C. Dickover and W. Scott	446,023	July 14	1161	301	56	229
Railway time-signal.	H. Gosman	460,128	Sept. 29	2506	624	56	1577
Railway time-signal.	F. B. Ide	449,584	Mar. 31	3760	914	51	1864
Railway time-signal.	M. N. Jones	454,478	June 23	1951	945	55	1541
Railway time-signal.	F. Robinson	444,506	Jan. 13	833	216	54	174
Railway time-signal.	J. A. Smith	465,118	Dec. 15	1771	217	57	1491
Railway time-signal.	J. Wayland	447,989	Mar. 10	1188	447	54	1350
Railway time-signal.	J. Wayland	457,175	Aug. 4	372	301	56	604
Railway-track.	L. Chilson	446,161	Feb. 10	1080	502	54	726
Railway-track.	M. G. Hubbard	465,981	Dec. 29	3167	265	57	1778
Railway track-brake.	J. Story	463,005	Nov. 10	1241	812	57	800
Railway-track clamp.	J. F. Adams	457,596	Aug. 11	1104	323	56	747
Railway-track cleaner.	A. F. Priest	455,724	July 7	695	182	56	134
Railway-track foot-guard.	S. R. Blizzard	462,196	Oct. 27	2671	183	57	534
Railway-track gate.	W. P. Elliott	447,463	Mar. 3	318	669	54	1178
Railway-track-laying apparatus.	D. F. Holman	414,051	Jan. 6	101	318	57	24
Railway-track litter.	H. D. Brown	449,308	Mar. 31	3297	104	54	1778
Railway track. Street.	T. G. Gribble	446,446	Feb. 17	1560	383	54	834
Railway track. Street.	W. C. Wood	461,090	Oct. 13	839	384	57	168
Railway-tracks. Apparatus for oiling.	T. L. Ennis	457,045	Aug. 4	167	217	56	565
Railway-tracks. Bed-support for.	E. R. Edwards.	464,173	Dec. 1	250	41	57	1183
Railway-tracks. Combined tie-bar and slide-plate for.	A. A. Strom	450,983	Apr. 21	2080	514	55	419
Railway-tracks. Compound rail for.	C. L. and T. H. Gibbon	459,781	Sept. 22	1963	495	56	1467
Railway-tracks. Constructing street.	T. G. Gribble	449,117	Mar. 31	2988	755	54	1723
Railway-tracks. Construction of.	T. H. Gibbon	458,657	Sept. 1	174	41	56	1098
Railway-tracks. Construction of.	C. L. and T. H. Gibbon	459,780	Sept. 22	1961	494	56	1467
Railway-tracks. Electric circuit closing and breaking device for.	T. H. Patenall.	462,850	Nov. 10	1006	259	57	755
Railway-tracks. Grass-burner for.	A. H. Bradley	451,218	Apr. 28	2452	606	55	499
Railway-tracks. Guard-rail clamp for.	P. Edelman	454,639	June 23	2225	573	55	1592
Railway-traffic control. Telegraph block system of.	D. C. Coombes and W. Rowe	460,771	Oct. 6	374	92	57	73
Railway-train arrester. Automatic.	F. B. Brock	463,993	Nov. 24	2814	730	57	1117
Railway-train signal and recorder. Electric.	F. H. Brown	452,515	May 19	1740	438	55	918
Railway-trains. Electric apparatus for use on.	R. A. Wilder	464,090	Dec. 1	127	32	57	1161
Railway-trains. Electric signal for.	L. Dunn	460,958	Oct. 13	649	167	57	134
Railway-trains. Electric signal for.	F. P. Lenahan	454,625	June 23	2203	567	55	1589
Railway-trains. Equipment of.	J. Krebbiel	455,021	June 30	2887	568	55	1796
Railway-trains. Pneumatic signal for.	G. A. Boyden	450,053	Apr. 7	596	734	55	115
Railway-trains. Tail light for.	G. W. Berne	448,315	Mar. 17	1723	149	55	1465
Railway trolley. Electric.	G. H. Alton	463,765	Nov. 24	2467	435	57	1652
Railway trolley. Electric.	H. H. Blades	444,893	Jan. 20	1471	30	54	304
Railway trolley. Electric.	R. Eickemeyer	448,831	Mar. 24	2545	639	54	1628
Railway trolley. Electric.	A. S. Hickley	450,153	Apr. 14	747	129	55	152
Railway trolley. Electric.	R. M. Hunter	462,219	Oct. 27	2712	683	57	541
Railway trolley. Electric.	E. E. Keller	460,781	Oct. 6	396	96	57	78
Railway trolley. Electric.	S. H. Short	446,931	Feb. 24	2333	579	54	993
Railway trolley. Electric.	S. H. Short	457,015	Aug. 4	127	31	56	558
Railway trolley. Electric.	S. H. Short	457,377	Aug. 11	765	196	56	682
Railway trolley. Electric.	F. F. Smith	460,163	Sept. 29	2550	636	56	1586
Railway trolley. Electric.	M. J. Wightman	448,172	Mar. 10	1452	371	54	1103
Railway trolley. Electric.	M. J. Wightman	448,173	Mar. 10	1457	372	54	1405
Railway-trolley guard. Electric.	A. W. Mitchell	449,246	Mar. 31	3153	795	54	1753
Railway-trolley guard. Electric.	A. W. Mitchell	449,490	Mar. 31	3622	911	54	1839
Railway trolley or traveler. Electric.	S. H. Short	450,683	Apr. 21	1614	387	55	331
Railway trolley-pole. Electric.	C. A. Lieb	437,356	Aug. 11	728	186	56	674
Railway trolley-wheel. Electric.	S. W. Kimble	464,370	Dec. 1	570	139	57	1242
Railway trolley-wheel. Electric.	J. A. Wetmore	459,848	Sept. 22	2066	519	56	1488
Railway trolleys. Conductor and guide for electric.	J. I. Conklin	463,715	Nov. 24	2399	629	57	1039
Railway water-tanks. Outlet-valve for.	C. J. Bascon	463,472	Nov. 17	1993	521	57	954
Railway-wire support. Electric.	C. A. Lieb	450,164	Apr. 14	761	193	55	155
Railway work. Motor-suspension for.	E. W. Rice, Jr.	448,260	Mar. 17	1615	412	54	1443
Railways. Automatic danger-signal for.	W. I. Herrick	459,707	Sept. 15	1847	464	56	1438
Railways. Automatic safety electric system for.	E. Deming	452,872	May 26	2297	577	55	1035
Railways. Automatic safety-stop for inclined cable.	E. R. Duckwall	454,858	June 30	2566	578	55	1665
Railways. Automatic trolley-catcher for electric.	B. J. Parsons	449,569	Mar. 31	3731	937	54	1859
Railways by dynamic induction. Method of and apparatus for operating electric.	E. E. Ries	458,859	Sept. 1	481	116	56	1157
Railways. Closed conduit for electric.	C. J. Van Depoele	458,866	Sept. 1	497	117	56	1160
Railways. Conductor for electric.	W. H. Knight	455,339	July 7	52	122	56	13
Railways. Conductor-switch for electric.	F. J. Sprague and J. F. S. Branth	445,515	Jan. 27	2425	132	54	498
Railways. Conduit and conductor for electric.	W. H. Knight	461,549	Oct. 20	1643	633	57	329
Railways. Conduit-conductor for electric.	W. H. Knight	464,505	Dec. 8	768	401	57	121

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Railways. Conduit for electric	E. M. Bentley	454,022	June 16	1272	330	55	1406
Railways. Conduit system for electric	W. H. Ford	451,815	May 5	564	139 } 140 }	55	687
Railways. Construction of	G. Truesdell	450,984	Apr. 21	2081	514	55	420
Railways. Contact device for electric	E. M. Bentley	445,634	Feb. 3	181	47	54	547
Railways. Contact device for electric	E. M. Bentley	446,420	Feb. 17	1515	373	54	825
Railways. Contact-trolley for electric	J. B. Cahoon and I. F. Baker	446,428	Feb. 17	1532	377	54	828
Railways. Controlling dynamo-electric machines for electric	S. H. Short	458,956	Sept. 1	631	155	56	1188
Railways. Controlling-switch for electric	F. B. Rae	446,613	Feb. 17	1801	445	54	882
Railways. Coupling for the trolley-wires of electric	S. H. Short	445,441	Feb. 3	545	133	54	618
Railways. Current-collecting device for electric	R. M. Hunter	444,397	Jan. 6	649	169	54	127
Railways. Current-collecting device for electric	R. M. Hunter	444,566	Jan. 13	928	241	54	192
Railways. Driving mechanism for cable	J. Walker	454,894	June 30	2638	676 } 677 }	55	1677
Railways. Electric block system for	A. H. R. Guiley	454,344	June 16	1736	452	55	1196
Railways. Electric conductor for	C. E. Sargent	463,760	Nov. 21	2461	643	57	1050
Railways. Electric signal for	U. S. Jackson	451,157	Apr. 28	2346	5-2	55	4-0
Railways. Electric signal for	E. C. Wiley	445,106	Jan. 20	1813	468	54	369
Railways. Electric signal system for	E. C. Wiley	446,313	Feb. 10	1343	327	54	778
Railways. Electric signaling apparatus for	E. D. Graff	448,856	Mar. 24	2593	651 } 652 }	54	1637
Railways. Electric switch for electric	F. Mansfield	450,172	Apr. 14	770	195	55	156
Railways. Electric switch for electric	F. Mansfield	450,173	Apr. 14	772	196	55	157
Railways for dressed meats. Switch for overhead	W. C. Jarvis	445,060	Jan. 20	1747	450	54	357
Railways. Girder-rail track for street	W. C. Wood	460,927	Oct. 6	604	153 } 154 }	57	118
Railways. Head-chair for stub-switches for	R. C. Schenck	463,430	Nov. 17	1931	504	57	941
Railways. Manufacture of tie-rails and connecting-rods for	A. A. Strom	450,860	Sept. 22	2087	521	56	1492
Railways. Metal tie for	G. H. Pond	455,885	July 14	951	249	56	191
Railways. Overhead crossing appliance for electric	I. H. Farnham	448,711	Mar. 24	2363	592	54	1504
Railways. Overhead track for	E. H. Thatcher	452,201	May 12	1224	309	55	812
Railways. Pole for overhead systems of electric	J. N. Brownlee	449,753	Apr. 7	172	42	55	35
Railways. Pole trolley and stand for electric street-cable	T. E. Adams	457,334	Aug. 11	691	177	56	667
Railways. Power-conveyer for traction-vehicles in cable	W. M. Morgan	454,829	June 23	2518	648	55	1648
Railways. Power-transmitting device for electric	E. H. Johnson	450,744	Apr. 21	1693	409 } 410 }	55	346
Railways. Rack-rail for rack	P. Simons	444,641	Jan. 13	1031	268	54	212
Railways. Rail connection for electric	M. J. Wightman	460,615	Oct. 6	109	29	57	24
Railways. Rail-coupler for	L. Wallace	460,273	Sept. 29	2725	679	56	1620
Railways. Rail-joint for use on	J. J. Anderson	443,130	Nov. 17	1453	377	57	851
Railways. Rail-splice and bolt for	W. S. Weller and E. B. Mann	45,350	Apr. 28	2661	659	55	541
Railways. Section-insulator and lightning-arrester for electric	E. Thomson	463,761	Nov. 24	2462	643 } 644 }	57	1050
Railways. Subway and connection for electric	W. Osner	455,763	July 14	757	200	56	155
Railways. System for cable	L. Cutshaw	449,466	Mar. 31	3587	903 } 904 }	54	1832
Railways. System of distribution for electric	S. H. Short	461,851	Oct. 27	2129	525	57	429
Railways. System of electrical signaling for	S. de Jager and A. Zoutman	460,779	Oct. 6	390	95	57	76
Railways. Tension and cut-out device for electric	B. Jennings	451,326	Apr. 28	2630	650	55	534
Railways. Three-rail track for cable	C. Vogel	450,116	Apr. 7	690	175	55	135
Railways. Throw-on sheave for cable	E. P. Morgan and R. McCarthy	458,913	Sept. 1	571	158	56	1174
Railways. Track-rail for electric street	J. T. Hill and B. Meiring	460,967	Oct. 13	666	171	57	136
Railways. Trolley device for electric	D. N. Cook	452,542	May 19	1782	449	55	926
Railways. Trolley for electric	W. J. Cavert and W. P. Wiswall	447,632	Mar. 3	566	145	54	1228
Railways. Trolley-wire support for electric	J. S. Hughes	455,142	Jan. 20	1872	484 } 485 }	54	381
Railways. Tubular pole for electrical	T. J. Bray	452,255	May 12	1311	328	55	831
Railways. Turn-out for electric	R. M. Hunter	445,409	Jan. 27	2273	590	54	470
Railways. Underground conduit for electric	R. A. Stewart	448,461	Mar. 17	1952	491	54	1508
Railways. Underground system for electric	S. D. Nesmith	462,153	Oct. 27	2600	647	57	520
Rain-fall. Producing	L. Gathmann	462,795	Nov. 10	912	...	57	736
Raisin and fig press	J. Porteous	453,293	June 2	174	48	55	1180
Rake:							
See Hand-rake. Hay-rake.							
Rake	O. L. F. Browne	465,919	Dec. 29	3055	7-3	57	1756
Rake	A. Dunn	458,270	Aug. 25	2203	539	56	972
Rake	S. Swope	446,482	Feb. 17	1614	396	54	846
Ram. Hydraulic	G. Yellott	447,550	Mar. 3	464	114	54	1205
Rand-trimmer	J. W. Plummer	449,232	Mar. 31	3162	797	54	1755
Range	W. L. Butts	457,921	Aug. 18	1637	428	56	857
Range	I. Rubel	445,289	Jan. 27	2098	542	54	433
Range	C. F. Walther	444,281	Jan. 6	475	121	54	94
Range and position finder	I. N. Lewis	447,335	Mar. 3	85	23 } 24 } 25 }	54	1134
Range-boiler	V. Wilhelmi	465,228	Dec. 15	1938	493	57	1523
Range-boiler attachment	I. G. Lane and A. H. Levejoy	462,978	Nov. 10	1209	315	57	793
Range. Combined cooking and heating	A. P. Broomell	445,037	Jan. 20	1702	438	54	348
Range. Cooking	J. Tettelbach	460,188	Sept. 29	2587	645	56	1593
Range-finder. Electrical	B. A. Fiske	444,217	Jan. 6	385	96	54	77
Range-finding and sighting apparatus	H. Andrews and J. A. Norton	444,406	Jan. 6	665	173	54	131
Range or stove	H. Born	459,436	Sept. 15	1409	352	56	1356
Range or stove. Cooking	M. E. Owen	456,158	July 21	1351	358	56	276
Range. Portable	D. H. Erdman	445,109	Jan. 20	1818	470	54	370
Ranges. Hot-water apparatus for cooking	G. T. Brewer	456,757	July 28	2351	619	56	473
Ranges. Water-heating attachment for	H. C. Steinboff	459,662	Sept. 15	1780	448	56	1425
Rat-trap	P. A. Johnson	452,575	May 19	1833	460	55	935
Rat-trap	T. Merrell	450,176	Apr. 14	777	196	55	158
Ratchet-brace	H. C. Fraser	460,005	Sept. 22	2301	578	56	1531
Ratchet-clutch mechanism. Reversible	W. B. Turner	465,955	Dec. 29	3114	797	57	1767
Ratchet device	M. Reich	463,778	Nov. 24	2482	648	57	1055

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Ratchet-drill	G. L. Evatt	462,543	Nov. 3	507	124	57	648
Ratchet-drill	J. F. McGrath	465,647	Dec. 22	2630	{ 671 672 }	57	1664
Ratchet-drill	E. Schmitz	452,985	May 26	2495	632	55	1073
Ratchet-drill, brace, and breast-drill. Combined	L. F. Wright	452,589	May 19	1852	466	55	939
Ratchet hand-power	G. W. Davis	459,677	Sept. 15	1801	453	56	1429
Ratchet-tool	F. G. and F. H. Bates	453,537	June 2	563	143	55	1254
Ratchet-wrench	J. Berner	455,300	July 7	8	2	56	4
Ratchet-wrench	W. H. Haire	449,476	Mar. 31	3603	907	54	1835
Ratchet-wrench	G. F. Poe	462,995	Nov. 10	1230	320	57	798
Ratchet-wrench	J. F. Thorn	458,079	Aug. 18	1877	489	56	904
Ratchet-wrench and boring-bit. Combined	C. H. Myers	446,075	Feb. 10	922	225	51	699
Ratchet wrench and drill	C. H. Myers	446,073	Feb. 10	920	225	51	699
Ratchet-wrench and screw-driver. Combined	C. H. Myers	446,072	Feb. 10	919	224	51	698
Rawhide and making the same. Fulled	C. L. Royer	456,455	July 28	2510	.....	56	501
Rawhide mallet	C. W. Holbrook, 2d.	463,113	Nov. 10	1421	367	57	836
Razor-guard	P. D. Murphy and C. O. Chaplin ..	448,150	Mar. 10	1436	367	51	1400
Razor-sharpening device	P. J. Caesar	455,165	June 30	3137	797	55	1774
Razor-stop	C. L. Holland	447,184	Feb. 24	2769	685	54	1075
Razor-stop	A. M. Lawrence	454,483	June 23	1958	511	55	1546
Razor-stop	M. E. Reilly	452,112	May 12	1078	273	55	785
Razor-stop	J. R. Torrey	447,213	Feb. 24	2821	700	54	1086
Razor-stop. Rotary	G. H. Courser	458,521	Aug. 25	2610	635	56	1049
Razors. Composition for sharpening	L. C. Maurer	448,752	Mar. 24	2435	.....	54	1607
Reamer	B. B. Allen	450,879	Apr. 21	1920	471	55	388
Reamer	B. B. Allen	456,462	July 21	1845	489	56	368
Reamer	W. W. McGregory	460,444	Sept. 29	2969	742	56	1666
Reamer	C. B. Rohland	460,802	Oct. 6	420	104	57	83
Reaming and tapping machine	W. Porteous	463,337	Nov. 17	1775	{ 464 465 466 }	57	911
Reaming and tapping machine. Combined	W. Porteous	457,916	Aug. 18	1626	{ 424 425 426 427 }	56	855
Reapers and binders. Gleaner attachment for	E. F. Taylor	459,217	Sept. 8	1057	257	56	1277
Reaping-machine	M. S. Cody	450,860	Apr. 21	1891	462	55	382
Reclining-chair	W. Gratznowsky	446,062	Feb. 10	904	220	54	696
Recorder:							
See Autograph-recorder. Speed-recorder.							
Cash-recorder. Time-recorder.							
Electrical recorder. Watchman's electric re-							
Phonograph-recorder. corder.							
Ship's course-re- Watchman's time-record-							
corder. er.							
Recording computing-machine	D. E. Felt	465,255	Dec. 15	1979	505	57	1531
Recording-machines. Marker for	J. Boyer	456,668	July 28	2187	579	56	443
Recutting-machine	S. E. Plummer	451,433	Apr. 28	2786	{ 688 689 }	55	563
Recutting-machine	S. E. Plummer	451,434	Apr. 28	2788	689	55	564
Reel:							
See Bolting-reel. Nail-machine reel.							
Clothes-line reel. Sand-reel.							
Fence-wire reel. Ticket-reel.							
Fish-line reel. Twine-reel.							
Fishing-reel. Wire-reel.							
Harvester-reel. Wire-coiling reel.							
Hose-reel. Wire-rod reel.							
Reel	E. C. Cornwell	444,818	Jan. 20	1309	341	54	273
Reel and support	R. Hardie	454,615	June 23	2188	{ 564 565 }	55	1586
Reel or swift	E. G. Shreve	445,414	Jan. 27	2280	592	54	471
Reels. Cop-spindle for	I. Walker	447,800	Mar. 10	871	216	54	1290
Reeling-machine	E. E. Bradley	449,360	Mar. 31	3402	{ 855 856 }	54	1795
Reflecting-light	W. J. Burke	460,462	Sept. 29	3000	{ 751 752 }	56	1672
Reflector	I. Peral	445,379	Jan. 27	2224	{ 576 577 }	54	460
Reflector. Electric-lamp	F. Cooley	449,403	Mar. 31	3478	875	51	1811
Reflectors. Adjuster for electric-lamp	J. E. Hamilton	453,002	May 26	2522	638	55	1078
Refrigerating apparatus	J. Erny	462,118	Oct. 27	2553	634	57	511
Refrigerating apparatus	C. F. Miller	462,904	Nov. 10	1092	283	57	771
Refrigerating apparatus. Car	W. S. Parker	450,976	Apr. 21	2073	512	55	417
Refrigerating attachment for water-mains	A. B. Wood	455,456	July 7	217	63	56	50
Refrigerating composition	R. R. Graf	450,462	Apr. 21	1893	.....	55	383
Refrigerating device	H. C. Weeden	455,522	July 7	349	90	56	69
Refrigerating-machine	P. Beck	464,348	Dec. 1	540	132	57	1237
Refrigerating-machine	G. H. Holgate	451,393	Apr. 28	2719	675	55	551
Refrigerating-room	D. J. Davis	406,049	Dec. 29	3294	841	57	1802
Refrigerating valve and regulator	C. A. Cox and C. N. Brockington ..	450,575	Apr. 14	1389	343	55	274
Refrigerator	H. R. Allen and J. A. Minturn ..	461,378	Oct. 13	1306	330	57	260
Refrigerator	T. S. Caldwell	458,153	Aug. 25	1993	516	56	914
Refrigerator	W. Campbell	460,808	Oct. 6	427	106	57	85
Refrigerator	A. I. Dexter	459,037	Sept. 8	773	188	56	1223
Refrigerator	D. P. Edgar	465,055	Dec. 15	1654	{ 421 422 }	57	1409
Refrigerator	D. Ganl	447,403	Mar. 3	215	56.57	54	1158
Refrigerator	W. S. Hinman	465,043	Dec. 15	1631	415	57	1466
Refrigerator	O. Kutsche	447,467	Mar. 3	337	84	54	1181
Refrigerator	C. J. Lang	457,087	Aug. 4	244	63	56	580
Refrigerator	C. H. Leonard	454,747	June 23	2382	612	55	1625
Refrigerator	C. F. Miller and A. W. Carlile	453,651	June 9	746	192	55	1297

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Refrigerator	J. Onthet	456,840	July 28	2479	651	56	495
Refrigerator	J. Stanard	455,891	July 14	958	{ 250 251 }	56	192
Refrigerator	H. L. Trotter	457,962	Aug. 18	1705	446	56	871
Refrigerator	O. M. Whitman	461,006	Oct. 13	720	185	57	147
Refrigerator	J. J. Wright	455,556	July 7	416	111	56	81
Refrigerator and gas-generator. Combined	H. B. Cornish	463,489	Nov. 17	2013	527	57	958
Refrigerator-car	E. R. Hutchins	454,869	June 30	2587	{ 664 665 }	55	1669
Refrigerator car or building	J. F. Hanrahan	453,047	May 26	2589	654	55	1091
Refrigerator. Chemical	R. Hürsh	458,726	Sept. 1	273	65	56	1118
Refuse. Apparatus for the treatment of city	J. C. W. Stanley and J. Russell	455,802	July 14	826	{ 215 216 217 218 }	56	168
Refuse-burning attachment for outhouses	J. R. Jacobus	464,251	Dec. 1	388	93	57	1208
Register:							
See Autographic regis- ter.	Check-register.						
Billiard-register.	Counting-register.						
Billiard-table regis- ter.	Fare-register.						
Camera-roll-holder register.	Fare-recording register.						
Car-mileage register.	Grain-register.						
Cash-register.	Hot-air register.						
Cash and sales reg- ister.	Paper-machine register.						
	Ticket-register.						
	Time-register.						
	Weigher-register.						
Register	C. S. Hood	465,561	Dec. 22	2496	637	57	1638
Register for counting the revolutions or strokes of machines.	S. O. Gould	458,897	Sept. 1	549	133	56	1170
Register-sheet	E. J. Richard	446,952	Feb. 54	2360	587	51	998
Registering and recording apparatus for tram-cars and omnibuses	T. Gregory	444,883	Jan. 20	1458	{ 377 378 }	54	301
Registering apparatus	T. Pink	462,365	Nov. 3	236	58	57	595
Registering-gate	E. R. Guerra	447,680	Mar. 3	646	{ 160 161 }	54	1240
Registering lock	W. F. Beasley	452,433	May 19	1607	399	55	895
Registering mechanism or counter actuated by electric currents.	R. Jewell	444,358	Jan. 6	585	151	54	116
Regulator:							
See Air-compressor regu- lator.	Electro-motive-force regu- lator.						
Automatic regu- lator.	Feed-regulator.						
Brake-regulator.	Feed-box regulator.						
Condenser-regu- lator.	Feed-water regulator.						
Conveyer-regulator.	Furnace-regulator.						
Damper-regulator.	Gas-regulator.						
Draft-regulator.	Piano-action regulator.						
Dynamo-regulator.	Pressure-regulator.						
Electric regulator.	Pump-regulator.						
Electric-circuit regu- lator.	Speed-regulator.						
Electric-current-regu- lator.	Temperature-regulator.						
Electric-machine regu- lator.	Thermostatic regulator.						
Electric-motor regu- lator.	Vehicle-regulator.						
	Watch-regulator.						
	Water-closet-valve regu- lator.						
	Water-supply regulator.						
	Weigher-regulator.						
	Windmill-regulator.						
Regulator	E. A. Alsdarf	450,719	Apr. 21	1663	401	55	340
Rein-button	M. F. Berry and N. Stafford	444,874	Jan. 20	1442	375	54	298
Rein-fastening	C. F. Harlow	457,532	Aug. 11	1001	256	56	727
Rein-guard	J. N. Southrey	462,173	Oct. 27	2628	655	57	536
Rein-holder	J. E. Bowman	462,135	Nov. 17	1458	378	57	852
Rein-holder	G. H. Davis	450,994	Apr. 21	2101	518	55	422
Rein-holder	J. E. Hall	455,324	July 7	57	11	56	10
Rein-holder	C. F. Lytle	465,937	Dec. 29	3081	790	57	1761
Rein-holder	R. C. Nugent	458,661	Sept. 1	179	42	56	1089
Rein-holder	W. René	449,763	Apr. 7	184	46	55	37
Rein-holder	J. D. Shaw and B. F. Atwood	460,664	Oct. 6	207	53	57	43
Rein-holder	J. D. Shurmon	447,981	Mar. 10	1176	298	54	1347
Rein-holder	T. H. Watson	460,734	Oct. 6	323	79	57	64
Rein-support	J. W. Beyron	447,656	Mar. 3	617	152	54	1234
Rein-support	G. W. Hall	459,522	Sept. 15	1543	385	56	1380
Rein-supporting ring. Harness.	M. C. Gamble	447,044	Feb. 24	2524	626	54	1028
Reins. Adjustable attachment for	S. F. Milliron	466,102	Dec. 29	3368	869	57	1817
Relay	R. Varley, Jr.	464,133	Dec. 1	186	45	57	1172
Repairing-machine jack	G. W. Crouse	461,321	Oct. 13	1198	305	57	240
Repeater	F. W. Cole	445,797	Feb. 3	474	{ 116 117 }	54	604
Repeater	F. W. Cole	445,797	Feb. 3	474	{ 116 117 }	54	604
Resaving-machine	F. W. Cole	445,797	Feb. 3	474	{ 116 117 }	54	604
Reservoirs. Device for disposing of surplus water impounded in	A. D. Cathin	449,772	Apr. 7	198	50, 51	55	40
	E. P. Roberts	447,083	Feb. 24	2582	641	54	1010
Resilient spiral washer and making of the same	H. A. Harvey	464,301	Dec. 1	471	111	57	1221
Resistance-board. Segmental	G. D. Hand and O. P. Sells	448,338	Mar. 17	1770	418	54	1474
Resonator. Molecular sound	G. F. Shaver	444,464	Jan. 13	759	198	54	159
Reticule or pocket-book	A. Aldrich	444,444	Jan. 13	605	179	54	143
Retort-charging apparatus	L. Van Vestrant	450,688	Apr. 21	1622	389	55	333
Retort-charging device	K. M. Mitchell	444,268	Jan. 6	458	{ 116 117 }	54	91

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Retort-furnace for deoxidizing ore	J. H. Lancaster and M. R. Conley ..	447,779	Mar. 10	820	{ 203 204 }	54	1280
Reverberatory furnace	W. Stubblebine	456,663	July 28	2178	577	56	441
Reversible-seat chair. Coin-controlled	L. M. Erb	448,012	Mar. 10	1228	312	54	1357
Reversing-gear	C. Hermann	454,434	June 16	1888	493	55	1524
Reversing mechanism	R. S. Carr and E. J. Schroder	465,920	Dec. 29	3056	{ 783 784 }	57	1756
Revoluble rack	A. Jones	452,792	May 26	2181	546	55	1012
Revolver	H. M. Caldwell	453,421	June 2	389	101	55	1220
Revolver	I. Johnson and A. Fyrberg	465,179	Dec. 15	1871	474	57	1509
Revolver. Double-action	H. Love	445,511	Jan. 27	2419	631	54	497
Revolver-lock	C. A. Weeks and C. Foehl	447,219	Feb. 24	2834	703	54	1088
Revolver-stock. Adjustable extension	W. L. and E. C. Kellar	461,440	Oct. 20	1533	376	57	309
Revolvers. Barrel-catch for	J. H. Wesson	456,179	July 21	1382	366	56	282
Revolvers. Base-pin and cylinder-brake for	C. Foehl and C. A. Weeks	444,823	Jan. 20	1323	343	54	276
Revolvers. Cylinder-stop for	H. F. Wheeler	458,687	Sept. 1	220	51	56	1108
Revolvers. Lock mechanism for	A. C. Houston	457,278	Aug. 4	555	146	56	636
Revolving chair	J. Gilson	457,774	Aug. 18	1382	357	56	811
Revolving table, book-file, and blank-case. Combined.	O. H. Hubbard	461,756	Oct. 20	1973	488	57	392
Rheostat	W. S. Andrews and A. K. Warren ..	465,512	Dec. 22	2411	616	57	1622
Rheostat	C. D. Jenney	452,574	May 19	1830	{ 459 460 }	55	935
Rheostat	O. A. Kessner	460,972	Oct. 13	672	173	57	138
Rheostat	J. A. Mosher	457,090	Aug. 4	248	64	56	580
Rheostat	J. O'Meara	447,494	Mar. 3	384	94	54	1190
Rheostat	J. Van Vleet	456,260	July 21	1512	409	56	312
Rheostat	H. E. Waite	459,800	Sept. 22	1990	500	56	1472
Rheostat	E. Weston	446,490	Feb. 17	1624	398	54	848
Rheostat. Adjustable	S. H. Short	448,682	Mar. 24	2310	579	54	1583
Rheostat. Adjustable	F. J. Sprague and C. R. Pratt	465,218	Dec. 15	1925	429	57	1520
Rheostat for electric-motor cars	S. H. Short	459,794	Sept. 22	1979	498	56	1469
Rheostatic switch	J. H. Lehman	444,707	Jan. 13	1129	291	54	231
Rheotome	G. P. Pragnell	450,319	Apr. 14	1016	251	55	202
Ribbon-box	J. H. Morse	456,630	July 28	2126	562	56	431
Ribbon-clasp	J. E. Davenney	449,467	Mar. 31	3593	905	54	1833
Ribbon-clasp	E. L. Tiede	458,289	Aug. 25	2231	546	56	977
Riding-habit	H. Rossberg	445,203	Jan. 27	1973	510	54	410
Riding-habit	W. Shingleton	444,942	Jan. 20	1565	401	54	321
Riding-pad	W. C. McNeeley	449,660	Apr. 7	329	84	55	66
Rifle-rest. Chin	W. Duncan	455,827	July 14	873	220	56	176
Rifling-machine	C. W. Sponsel	446,898	Feb. 24	2278	{ 567 568 569 }	54	984
Rifle. Portable magnetic	W. C. Edwards	451,208	Apr. 28	2441	603	55	497
Ring:							
See Curtain-ring. Key-ring.							
Curtain-pole ring. Nose-ring.							
Ear-ring. Packing-ring.							
Finger-ring. Rein-supporting ring.							
Hat-packing ring. Sealing-ring.							
Initial-ring.							
Ring-blanks. Forming	J. Bonner	453,102	May 26	2691	678	55	1111
Ring-forming machine. Finger	W. H. Peckham	455,430	July 7	214	55	56	44
Ring-gage	A. W. Engel	458,564	Sept. 1	24	5	56	1070
Rings, &c. Detachable head for	C. A. Russell	461,926	Oct. 27	2262	559	57	456
Rinsing-tub	J. D. Kelly	459,635	Sept. 15	1743	438	56	1418
River-banks. Holding brush mattress for retvetting.	J. W. Nier	457,818	Aug. 18	1455	379	56	823
Rivet	I. G. Platt	446,466	Feb. 17	1588	390	54	841
Rivet	I. G. Platt	449,698	Apr. 7	79	20	55	18
Rivet and button attaching machine	I. G. Platt and F. R. White	450,828	Apr. 21	1836	{ 445 446 }	55	372
Rivet and making the same. Tubular	H. S. Reynolds	459,650	Sept. 15	1763	413	56	1422
Rivet and riveting. Pivotal	M. D. Converse	460,352	Oct. 13	642	166	57	132
Rivet-set	W. A. Wilson	446,048	Feb. 10	880	215	54	691
Rivets. Forming	I. G. Platt	419,699	Apr. 7	80	20	55	18
Riveting apparatus. Electric	E. E. Ries	452,042	May 12	942	241	55	764
Riveting attachment. Loop	W. C. Trask	462,603	Nov. 3	600	148	57	667
Riveting by electricity	E. E. Ries	465,089	Dec. 15	1715	436	57	1481
Riveting device	J. V. Thacher and C. D. Wilson ..	462,871	Nov. 10	1040	269	57	760
Riveting-machine	M. Arnold	454,199	June 16	1529	402	55	1456
Riveting-machine	R. A. Carl	455,167	June 30	3140	798	55	1775
Riveting-machine	G. H. Pegram	445,935	Feb. 3	683	167	54	645
Riveting-machine	G. H. Pegram	445,936	Feb. 3	686	167	54	646
Riveting-machine	W. Sellers	454,572	June 23	2097	512	55	1571
Riveting-machine	J. J. Unbehend	465,148	Dec. 15	1822	462	57	1500
Roach and insect trap	J. Nile	464,343	Dec. 1	529	129	57	1235
Roach-trap	M. Cohen	455,096	June 30	3021	768	55	1752
Road-bed drain and safety-tie. Metallic	H. P. Sweet	446,900	Feb. 24	2287	569	54	985
Road making and repairing machine	M. G. Bunnell	448,708	Mar. 24	2354	{ 590 591 592 }	54	1592
Road making and repairing machine	M. G. Bunnell	455,701	July 7	650	{ 171 172 173 }	56	126
Road making and repairing machine	M. G. Bunnell	455,702	July 7	655	173	56	126
Road making and repairing machine	M. G. Bunnell	455,703	July 7	658	174	56	127
Road making and repairing machine	M. G. Bunnell	455,704	July 7	660	{ 174 175 }	56	127
Road making and repairing machine	M. G. Bunnell	455,705	July 7	662	175	56	128
Road making and repairing machine	M. G. Bunnell	455,706	July 7	664	{ 175 176 }	56	128
Road or field roller	E. Pratt	444,198	Jan. 6	359	89	54	72
Road-roller	M. E. Hershey	456,567	July 28	2015	{ 532 533 }	56	409
Road-roller. Steam	E. T. Wright	466,281	Dec. 29	3649	933	57	1870

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Roads. Constructing	H. B. Brasell	458,842	Sept. 1	457	110	56	1153
Roaster: <i>See</i> Coffee-roaster.							
Roaster	W. D. Stillman	446,033	Feb. 10	858	208	54	687
Roaster, smelter, and separator	J. L. Hopper	462,767	Nov. 10	863	{ 226 227 }	57	726
Roasting and smelting furnace	W. Heckert, W. J. Thomas, and F. L. Heckert	446,971	Feb. 24	2394	596	54	1004
Robe. Invalid's	L. H. Fifield	459,106	Sept. 8	888	213	56	1246
Rock-breaker	J. H. Bloomer	465,153	Dec. 15	1830	464	57	1501
Rock, coal, or other minerals. Machine for boring and mining	G. W. Elliott	463,498	Nov. 17	2023	530	57	960
Rock core drilling apparatus	S. W. Douglass	462,400	Nov. 3	297	74	57	607
Rock-cutting. Pneumatic tool for	D. Drawbaugh	461,820	Dec. 8	1252	{ 313 314 }	57	1383
Rock-cutting. Pneumatic tool for	D. Drawbaugh	464,821	Dec. 8	1256	314	57	1383
Rock-drill	C. Cummings	456,942	Aug. 4	29	6, 7	56	538
Rock-drill	A. W. and Z. W. Daw	447,666	Mar. 3	627	{ 155 156 }	54	1236
Rock-drill	R. A. Farrar	455,963	July 14	1068	280	56	211
Rock-drill	G. M. Githens	457,318	Aug. 11	711	182	56	671
Rock-drill	H. S. Grace	455,396	July 7	158	40	56	34
Rock-drill	H. S. Grace	461,340	Dec. 1	524	128	57	1234
Rock-drill	D. Hilt	464,612	Dec. 8	923	227	57	1321
Rock-drill	E. A. Rix	454,228	June 16	1566	412	55	1463
Rock-drill	O. Terp	458,601	Sept. 1	81	18	56	1081
Rock-drill. Electric	W. M. Schlesinger	449,090	Mar. 24	2937	{ 744 745 }	54	1704
Rock-drill. Multiple	C. J. Van Depoele	447,214	Feb. 24	2825	701	54	1086
Rock-drills. Rotating mechanism for	H. Ball	451,425	Apr. 28	2776	686	55	561
Rock-drills. Tripod for	H. Ball	455,269	June 30	3302	{ 836 837 }	55	1805
Rock-drilling machine	W. Arnold	458,612	Sept. 1	99	22	56	1085
Rock-drilling machinery	R. and W. C. Stephens	450,921	Apr. 21	1973	484	55	399
Rock for paving purposes. Apparatus for treating viscous	A. W. Hyde	447,711	Mar. 3	692	{ 172 173 }	54	1219
Rock or ore crusher	G. W. Taft	458,740	Sept. 1	291	72	56	1121
Rock-reamer	H. B. Morrison	444,008	Jan. 6	41	12	54	11
Rocker and whirler	H. W. Hensch	451,681	June 23	2246	586	55	1604
Rocket-primer	P. Cunningham	455,278	June 30	3337	843	55	1813
Rockets. Combined carrying-box and firing-chute for	P. Cunningham	455,279	June 30	3338	843	55	1813
Rocking and reclining chair. Combined	P. C. Lewis	452,713	May 19	2046	{ 514 515 }	55	979
Rocking board. Extensible	N. P. Benson	451,994	May 12	853	218	55	748
Rocking-chair	J. T. Mitchell	465,719	Dec. 22	2730	696	57	1683
Rocking-chair. Platform	A. B. Stevens	461,648	Oct. 20	1798	443	57	358
Rocking-chair. Tête-à-tête	J. B. Pooley	464,142	Dec. 1	202	48	57	1175
Rod: <i>See</i> Connecting-rod. Fishing-rod. Display-rod. Lightning-rod. Fire-arm cleaning-rod.							
Rod-cutter	E. M. Lindfors	464,976	Dec. 15	1499	376	57	1441
Rod-mill	T. W. Fitch	444,049	Jan. 6	102	26	54	23
Rod-mill	I. A. Kilmer	451,673	May 5	353	87	55	646
Rod-mill	I. A. Kilmer	451,674	May 5	354	87	55	646
Rod-mill plant	T. V. Allis	461,900	Oct. 27	2207	{ 544 545 }	57	446
Rod or pin wrench	M. Cummins	453,736	June 9	878	227	55	1322
Roller: <i>See</i> Copying-roller. Printing-roller. Curtain-roller. Road-roller. Feed-roller. Road or field roller. Graining-roller. Shade-roller. Land-roller. Wringer-roller. Marble-roller.							
Roller and seed-sower. Combined	T. A. Butler	449,754	Apr. 7	173	43	55	35
Roller-mill	J. A. A. Buchholz	453,755	June 9	907	236	55	1327
Roller-mill	E. G. Dewald	447,765	Mar. 10	795	198	54	1276
Roller-mill	A. Ingraham	453,812	June 9	994	258	55	1344
Roller-mill	A. Moore	466,251	Dec. 29	3600	{ 921 922 }	57	1861
Roller-mills. Differential in	L. D. Harding	463,049	Nov. 10	1308	339	57	814
Roller-mills, &c. Feed-regulator for	C. A. Corey	448,853	Mar. 24	2585	649	54	1636
Rolling axles. Machine for	W. J. Parmelee	444,253	Jan. 6	437	110	54	86
Rolling car-wheels. Machine for	J. R. Jones	457,922	Aug. 18	1638	{ 428 429 }	56	857
Rolling chair and child's carriage. Combined	A. Rudolph	461,276	Oct. 13	1130	288	57	225
Rolling girder-rails. Method of and apparatus for	C. H. Read and A. D. Thomas	452,732	May 19	2079	524	55	984
Rolling girder-rails. Rolls for	H. W. Thomas	449,013	Mar. 24	2822	715	54	1681
Rolling horseshoe-blanks. Machine for	J. F. Robinson	458,498	Aug. 25	2570	626	56	1040
Rolling machine. Axle	J. S. Patten	463,541	Nov. 17	2098	{ 552 553 }	57	973
Rolling-machine for wire rods and strips	T. V. Allis	462,388	Nov. 3	273	67, 68	57	603
Rolling machine. Metal	S. Johnston	455,236	July 7	49	14	56	12
Rolling metals. Machine for die	W. P. and J. W. Bettendorf	445,874	Feb. 3	593	145	54	628
Rolling-mill	H. Aiken	444,389	Jan. 6	637	165	54	125
Rolling-mill	H. Aiken	449,511	Mar. 31	3650	918	54	1845
Rolling-mill	J. H. and J. H. Bickley, Jr.	457,567	Aug. 11	968	447	56	720
Rolling-mill	J. Jardine	451,934	May 12	760	192	55	729
Rolling-mill	J. Kennedy	466,051	Dec. 29	3296	{ 841 842 }	57	1803
Rolling-mill	J. M. Price	448,073	Mar. 10	1307	{ 334 335 }	54	1374

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Rolling-mill	J. M. Price	465,977	Dec. 29	3152	{ 807 808	57	1775
Rolling mill and flattening and edging rolls therefor. Metal	P. Nevegold	460,882	Oct. 6	536	135	57	106
Rolling-mill feed-table	J. Morgan	450,868	Apr. 21	1902	{ 466 467 184 185 186 187 188 189	55	384
Rolling-mill for rods or wire	T. V. Allis	462,676	Nov. 3	745	{ 186 187 188 189	57	688
Rolling-mill guide	J. W. Watson	457,685	Aug. 11	1231	316	56	771
Rolling mill. Metal	F. W. Wood	457,946	Aug. 18	1681	{ 440 441 546 547 548	56	866
Rolling-mill plant	T. V. Allis	461,901	Oct. 27	2213	{ 547 548 619 620 651 652	57	447
Rolling mill. Wire	T. V. Allis	463,696	Nov. 24	2367	{ 619 620 651 652	57	1033
Rolling mill. Wire-rod	W. F. Thompson. (Reissue)	11,172	June 23	2532	{ 651 652	55	1650
Rolling-mills. Girder-rail roll for	W. C. Wood and J. W. Watson	454,244	June 16	1588	418	55	1468
Rolling-pin	C. Deiner	448,476	Mar. 17	1980	497	54	1513
Rolling-pin and cake-cutter. Combined	E. T. Baldwin and J. H. Stimpson	448,311	Mar. 17	1717	435	54	1464
Rolling-pin combined with other implements	J. L. Landrith	456,642	July 14	1184	311	56	223
Rolling tubes. Machine for	T. J. Bray	451,912	May 12	728	193	55	723
Rolling wire	H. A. Williams	446,497	Feb. 17	1637	401	54	851
Rolling wire rods and strips. Machine for	T. V. Allis	463,697	Nov. 24	2370	{ 620 621	57	1033
Rolling wire. Roll for	H. A. Williams	446,498	Feb. 17	1640	401	54	851
Roof	R. P. and E. D. Bronner	448,244	Mar. 17	1584	404	54	1438
Roof	O. Link	448,529	Mar. 17	2054	514	54	1527
Roof-coating. Composition for	W. S. Smith	452,086	May 12	1032	.....	55	777
Roof-creeper	F. F. Bentley	451,150	Apr. 28	2336	580	55	478
Roof-cresting	J. Aenis	455,958	July 14	1061	278	56	210
Roof-cresting	C. B. Nelson	464,036	Dec. 1	44	12	57	1145
Roof-fitting for soil-pipes	W. H. Meeker	464,578	Dec. 8	875	215	57	1312
Roof for hot-houses	J. D. Scovel	444,254	Jan. 6	438	110	54	86
Roof frame. Glass	J. D. Scovel	460,313	Sept. 29	2784	694	56	1631
Roof. Metal	C. R. Everson	451,650	May 5	316	77	55	639
Roof. Metal-covered	S. Taylor	459,980	Sept. 22	2266	569	56	1524
Roof or other structure. Iron	H. A. Strecker	459,051	Sept. 8	795	192	56	1227
Roof. Portable	E. Rankin, Jr	451,572	May 5	190	46	55	616
Roof-scaffold	H. McCormack	462,849	Nov. 10	1004	259	57	754
Roof structure. Timber	E. Molloy	460,981	Oct. 13	687	178	57	141
Roof-truss	H. C. Hodges	457,418	Aug. 11	824	{ 212 213	56	694
Roofs. Standing gutter for	F. D. Moon	462,847	Nov. 10	1000	258	57	753
Roofing	J. J. Geiger and L. Knapp	453,470	June 2	465	120	55	1256
Roofing	G. S. Lee	453,979	June 9	1207	315	55	1387
Roofing and lining felt	J. A. Smith	449,636	Mar. 31	3862	967	54	1884
Roofing fabric. Apparatus for making	M. C. Kerbaugh	455,000	June 30	2556	727	55	1720
Roofing fabrics. Apparatus for coating or saturat- ing and finishing	H. Bornmann	448,873	Mar. 24	2617	658	54	1641
Roofing for buildings	I. C. Thompson	456,971	Aug. 4	77	18	56	548
Roofing material	J. N. Hopper	446,775	Feb. 17	2055	512	54	932
Roofing material. Package for	W. A. List	464,792	Dec. 8	1219	303	57	1376
Roofing. Means for packing sheet-metal	B. W. Peterson	453,500	June 2	510	131	55	1244
Roofing. Metal	W. L. and H. Hoberling	463,831	Nov. 21	2559	667	57	1070
Roofing. Metallic	E. L. Champlin and F. E. Andrews	453,577	June 2	622	159	55	1265
Roofing. Metallic	R. L. Conch	462,374	Nov. 3	253	62	57	509
Roofing or sheathing	J. W. Beaumont	446,148	Dec. 29	3447	882	57	1832
Roofing-package. Sheet-metal	B. W. Peterson	453,501	June 2	512	131	55	1244
Roofing-paper	H. Cunningham	446,115	Feb. 10	1043	.....	54	721
Roofing. Sheet-metal	J. C. Bayer	451,550	May 5	157	38	55	609
Roofing. Sheet-metal	J. L. Dickelman	446,217	Feb. 10	1168	286	54	743
Roofing, &c. Water-proof and fire-proof material for	A. Blank	448,495	Mar. 17	2009	502	54	1518
Rooms. Warming and ventilating	C. G. Short	464,830	Dec. 8	1268	317	57	1386
Rope-clamp	F. B. McKenney	464,942	Dec. 8	1431	360	57	1419
Rope-clamp	P. Yorke	448,902	Mar. 24	2650	668	54	1649
Rope-end clasp	J. B. Clerget	463,807	Nov. 21	2724	639	57	1063
Rope fastener. Guy	A. L. Seelbach	446,020	Feb. 10	830	199	54	682
Rope holder and fastener	R. Osborne	454,760	June 23	2390	615	55	1628
Rope-hook	J. K. Miller	447,618	Mar. 3	568	140	54	1225
Rope. Machine for making hay and straw	O. H. Watkins	458,605	Sept. 1	86	19 20	56	1082
Rope or cable coupling	C. Davidson	463,443	Nov. 17	1948	508	57	945
Rope sheave or pulley	W. Goyne	459,577	Sept. 15	1633	409	56	1397
Rope-sheave. Sectional	J. W. Harris and T. J. Thomas	449,322	Mar. 31	3331	{ 840 841	54	1783
Rope-socket	P. Yorke	448,903	Mar. 24	2661	668	54	1650
Rope transmission	T. S. Miller	444,919	Jan. 20	1526	392	51	314
Ropeways. Apparatus or grip for buckets of	W. Ellingen	456,686	July 28	2233	591	56	451
Ropeways. Gripper for buckets of	T. Otto	452,550	May 19	1795	{ 451 452	55	928
Rosette	R. W. Jones	456,725	July 28	2276	603	56	460
Rosette. Detachable	C. E. Davis	453,337	June 2	249	66	55	1195
Rosin. Compound of	G. E. Armstrong	462,229	Nov. 3	5	.....	57	554
Rotary bolt	H. H. Ring	458,494	Aug. 25	2562	625	56	1029
Rotary compound steam-engine	S. E. S. Chapeau	444,087	Jan. 6	168	42	54	36
Rotary cutter	O. Pederson	462,157	Oct. 27	2604	648	57	521
Rotary cutter. Reversible	J. Barnes	449,571	Mar. 31	3733	938	54	1860
Rotary engine	W. G. Adams	456,351	July 21	1657	438	56	334
Rotary engine	E. D. Bangs	457,980	Aug. 18	1736	456	56	876

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Rotary engine.....	A. Beard.....	462,614	Nov. 3	617	{ 154 155 }	57	670
Rotary engine.....	W. G. and A. W. Billings.....	447,335	Mar. 3	412	{ 108 109 }	54	1201
Rotary engine.....	M. J. Bretherton.....	450,522	Sept. 29	3110	{ 778 779 }	56	1694
Rotary engine.....	S. G. Brosius.....	453,612	June 9	684	{ 177 178 }	55	1285
Rotary engine.....	S. G. Brosius.....	453,613	June 9	688	{ 178 179 }	55	1286
Rotary engine.....	S. G. Brosius.....	453,614	June 9	693	{ 179 179 }	55	1287
Rotary engine.....	S. G. Brosius.....	453,615	June 9	695	{ 179 179 }	55	1288
Rotary engine.....	S. G. Brosius.....	465,519	Dec. 22	2121	{ 618 618 }	57	1625
Rotary engine.....	W. and L. Carter.....	418,121	Mar. 10	1372	{ 351 352 }	54	1384
Rotary engine.....	A. Cleland.....	455,863	July 14	914	{ 239 239 }	56	181
Rotary engine.....	M. P. Elgen.....	418,213	Mar. 17	1536	{ 393 393 }	54	1129
Rotary engine.....	L. J. Everest.....	416,061	Feb. 10	903	{ 219 219 }	54	695
Rotary engine.....	E. H. Gollings.....	418,607	Mar. 17	2183	{ 545 546 }	54	1551
Rotary engine.....	J. W. Hayes.....	414,834	Jan. 20	1341	{ 348 349 }	54	279
Rotary engine.....	E. F. Holmgreen.....	454,738	June 23	2368	{ 608 608 }	55	1622
Rotary engine.....	M. Johnson.....	447,831	Mar. 10	914	{ 228 229 }	54	1298
Rotary engine.....	W. J. Kendig.....	419,325	Mar. 31	3335	{ 841 841 }	54	1784
Rotary engine.....	T. W. Kincaid.....	444,938	Jan. 20	1557	{ 399 399 }	54	319
Rotary engine.....	T. Latch.....	455,668	July 7	597	{ 157 157 }	56	116
Rotary engine.....	F. Meyer.....	461,130	Oct. 13	887	{ 230 230 }	57	178
Rotary engine.....	W. J. Putnam.....	465,947	Dec. 29	3098	{ 793 793 }	57	1764
Rotary engine.....	J. Schwarzmann.....	450,874	Apr. 21	1913	{ 470 470 }	55	386
Rotary engine.....	J. Schwarzmann.....	451,777	May 5	512	{ 126 126 }	55	675
Rotary engine.....	J. Sperry.....	462,282	Nov. 3	94	{ 24, 25 24, 25 }	57	569
Rotary engine.....	J. M. Stocker.....	459,381	Sept. 8	1315	{ 328 328 }	56	1330
Rotary engine.....	P. B. Taylor.....	459,861	Sept. 22	2089	{ 524 525 }	56	1493
Rotary engine.....	G. A. Thomson.....	459,424	Sept. 15	1396	{ 348 348 }	56	1353
Rotary engine.....	G. Westinghouse, Jr.....	455,928	June 30	2901	{ 737 738 }	55	1728
Rotary engine.....	G. H. Weston.....	449,148	Mar. 31	708	{ 768 768 }	54	1731
Rotary engine and pump.....	J. Morgan.....	453,652	June 9	743	{ 192 193 }	55	1297
Rotary furnace for burning cement, lime, &c.....	J. F. de Navarro.....	457,589	Aug. 11	1091	{ 279 279 }	56	745
Rotary meters. Fluid-pressure device for.....	L. H. Nash.....	419,820	Apr. 7	270	{ 69, 70 69, 70 }	55	53
Rotary motor.....	E. J., and G. Filtz.....	453,043	May 26	2521	{ 652 653 }	55	1090
Rotary screen and sifter.....	S. E. Alexander and W. B. Hatch.....	459,940	Sept. 22	2214	{ 557 557 }	56	1515
Rotary steam-engine.....	S. G. Brosius.....	445,038	Jan. 20	1705	{ 438 439 }	54	348
Rotary steam-engine.....	S. G. Brosius.....	445,039	Jan. 20	1708	{ 439 440 }	54	349
Rotary steam-engine.....	S. G. Brosius.....	463,267	Nov. 17	1668	{ 436 436 }	57	891
Rotary steam-engine.....	M. J. Mapes.....	464,162	Dec. 1	231	{ 56, 57 56, 57 }	57	1179
Rotary steam-engine.....	E. H. McDonald.....	465,194	Dec. 15	1889	{ 479 479 }	57	1513
Rotary steam-engine.....	F. Meyer.....	464,285	Dec. 1	445	{ 106 107 }	57	1219
Rotary steam-engine.....	F. Meyer, J. S. Kiehl, and A. Grant.....	461,161	Oct. 13	936	{ 242 243 }	57	186
Rotary steam-engine.....	C. A., and W. Miessner.....	453,935	June 9	1149	{ 300 300 }	55	1375
Rotary steam-engine.....	S. B. Patteson.....	453,065	May 26	2621	{ 662 662 }	55	1097
Rotary steam-engine.....	J. E. Sackett.....	449,864	Apr. 7	333	{ 85 85 }	55	66
Rotary steam-engine.....	S. Smith.....	453,247	June 2	106	{ 29 29 }	55	1168
Rotary steam-engine.....	W. N. Whipple.....	465,907	Dec. 29	3038	{ 778 779 }	57	1753
Rotary trimmer.....	A. S. Vose.....	457,386	Aug. 11	779	{ 206 206 }	56	685
Rough-rounding and channeling machine.....	H. Briggs.....	463,967	Nov. 24	2783	{ 722 722 }	57	1112
Rough-rounding and channeling machine.....	H. Briggs.....	463,982	Nov. 24	2811	{ 729 729 }	57	1117
Roundabout.....	W. H. Easton.....	445,851	Feb. 3	561	{ 137 137 }	54	621
Roundabout.....	J. C. Fowler.....	451,373	Apr. 28	2689	{ 667 667 }	55	546
Roundabout.....	J. Frueh.....	446,182	Feb. 10	1110	{ 272 272 }	54	732
Roundabout.....	M. Garland.....	461,629	Oct. 20	1773	{ 437 437 }	57	353
Roundabout.....	M. M. Holmes.....	451,932	May 12	757	{ 191 191 }	55	729
Roundabout.....	G. Kay, F. Wilkinson, and R. Fisher.....	448,241	Mar. 17	1581	{ 403 404 }	54	1437
Roundabout.....	T. C. Lidster.....	448,056	Mar. 10	1288	{ 329 329 }	54	1370
Roundabout.....	W. Mangels.....	452,227	May 12	1264	{ 319 319 }	55	821
Roundabout.....	V. Peter.....	457,619	Aug. 11	1137	{ 290 291 }	56	754
Roundabout.....	A. W. Ullven.....	444,585	Jan. 13	953	{ 247 247 }	54	197
Rovings of fine fiber and apparatus therefor. Making.....	A. L. Washburn.....	465,440	Dec. 15	2286	{ 586 586 }	57	1589
Rubber.....	C. J. Bailey.....	458,212	Aug. 25	2688	{ 510 510 }	56	951
Rubber.....	J. B. Sargent.....	460,600	Oct. 6	84	{ 23 23 }	57	19
Rubber and metal. Manufacturing articles of combined hard.....	F. Lambert.....	452,479	May 19	1691	{ 425 425 }	55	909
Rubber balls. Machine for coloring or ornamenting india.....	G. L. Hille, G. A. and M. A. Andsley.....	455,493	July 7	304	{ 77 77 }	56	61
Rubber balls. Machine for coloring, printing, or ornamenting india.....	G. L. Hille, G. A. and M. A. Andsley.....	455,877	July 14	936	{ 246 246 }	56	188
Rubber boot.....	E. A. Saunders.....	450,698	Apr. 21	1636	{ 393 393 }	55	335
Rubber boot.....	W. R. Smith.....	447,497	Mar. 3	388	{ 94 94 }	54	1191
Rubber-dam clamp.....	F. E. Hansen.....	465,265	Dec. 15	2000	{ 512 512 }	57	1534
Rubber-dam clamp.....	C. A. Meister.....	465,716	Dec. 22	2727	{ 636 636 }	57	1683
Rubber goods. Production of waste.....	N. C. Mitchell.....	454,442	June 16	198	{ 55 55 }	55	1526
Rubber. Hand.....	H. Bentelspacher.....	448,197	Mar. 17	1510	{ 385 385 }	54	1424
Rubber. Hand.....	R. B. Tyler.....	415,369	Jan. 27	2212	{ 574 574 }	54	458

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Rubber. Hand.....	I. M. Levy.....	458,468	Aug. 25	2515	612	56	1030
Rubber, &c. Power-press for vulcanizing.....	J. F. W. Dorman.....	445,426	Jan. 27	2300	596	51	475
Rubber. Production of reclaimed.....	R. A. Lowenthal.....	452,439	May 19	1616	597	53	897
Rubber shoe.....	J. A. Brittain.....	461,310	Oct. 13	1185	302	57	237
Rubber tip and tape-measure. Combined.....	F. McIntyre.....	462,151	Oct. 27	2598	647	57	520
Ruby-pin setter.....	W. R. Johnson.....	457,492	Aug. 11	950	241	56	717
Ruching.....	E. H. Gosewisch.....	449,116	Mar. 31	2986	754	54	1722
Ruching. Beaded.....	G. H. Taylor.....	463,651	Nov. 24	2296	603	57	1020
Ruching-machine.....	C. G. Hill.....	464,648	Dec. 8	980	244	57	1332
Ruching-machine.....	W. H. Holeywell.....	465,177	Dec. 15	1865	473	57	1508
Rudder. Boat.....	P. E. Frostad.....	453,338	June 2	250	66	55	1196
Rudder-lock.....	O. Stuart.....	444,028	Jan. 6	71	19	54	17
Rudder locking apparatus.....	J. Kitson.....	463,517	Nov. 17	2047	536	57	965
Rudders. Device for shipping boats'.....	J. D. Hickman.....	456,820	July 28	2442	643	56	490
Rule.....	M. Hogarty.....	465,664	Dec. 22	2660	678	57	1669
Rule and try-square. Combined folding.....	R. Oerlein.....	457,890	June 9	1089	285	55	1362
Rule attachment. Graduated.....	M. A. Dahl.....	457,077	Aug. 4	231	59	56	577
Rule. Flexible.....	W. H. Blake, 2d, and E. T. Brad- lev.....	447,657	Mar. 3	617	152	54	1234
Rule for logarithmic calculations. Slide.....	R. C. Smith.....	450,640	Apr. 21	1548	372	55	319
Rule, square, and circle-marker. Combination.....	A. C. Fowler.....	463,212	Nov. 17	1578	411	57	874
Rule. Telescopic.....	J. A. Cook.....	450,141	Apr. 14	730	183	55	148
Rules. Bevel attachment for folding.....	C. D. Cowgill.....	451,810	May 5	555	137	55	694
Ruler and blotting-pad holder. Combined.....	J. L. Gordon.....	444,698	Jan. 13	1119	229	54	229
Ruler and paper-cutter. Combined.....	W. H. Atkinson.....	445,009	Jan. 20	1666	427	54	341
Ruler. Blackboard.....	Z. T. Fancee.....	466,226	Dec. 29	3561	912	57	1853
Ruler. Parallel.....	A. A. Hunting.....	450,619	Apr. 21	1479	363	55	298
Ruler. Parallel.....	C. A. Terry.....	455,779	July 14	783	206	56	159
Ruling machine. Paper.....	L. S. Bigelow.....	445,518	Jan. 27	2429	634	54	499
Ruling machine. Paper.....	A. J. Carleton.....	449,614	Mar. 31	3823	958	54	1876
Ruling machine. Paper.....	E. J. Piper.....	461,642	Oct. 20	1790	441	57	356
Riding machine. Steel and lithograph plate.....	J. Hope, Jr.....	448,922	Mar. 24	2685	676	54	1656
Rye-extractor.....	H. Gschwender.....	453,185	June 2	13	4, 5	55	1151
Saccharification of amylaceous matter. Apparatus for the.....	V. C. A. M. Bondonneau.....	457,104	Aug. 4	265	69	56	584
Saccharine juices. Apparatus for defecating and evaporating.....	R. F. Cordero.....	455,308	July 7	17	4	56	6
Sack-holder.....	W. F. Jeans.....	463,354	Nov. 17	1810	473	57	917
Sad-iron.....	E. G. Asmus.....	449,842	Apr. 7	305	79	55	60
Sad-iron.....	D. B. Baker.....	444,418	Jan. 13	691	180	54	144
Sad-iron.....	J. J. Brooks.....	457,299	Aug. 4	596	156	56	643
Sad-iron.....	H. M. Cooley.....	445,927	Feb. 3	671	164	54	643
Sad-iron.....	W. C. Dimmock.....	449,845	Apr. 7	300	80	55	61
Sad-iron.....	G. Heidel.....	454,820	June 23	2508	645	55	1646
Sad-iron.....	G. Heidel.....	460,868	Oct. 6	511	130	57	100
Sad-iron.....	H. Koepf.....	445,184	Jan. 27	1946	502	54	404
Sad-iron.....	H. Koepf.....	455,848	July 14	895	235	56	180
Sad-iron.....	J. J. Markley.....	458,402	Aug. 25	2422	500	56	1013
Sad-iron.....	D. H. Murphy.....	446,533	Feb. 17	1696	416	54	861
Sad-iron. Electric.....	C. E. Carpenter.....	448,317	Mar. 17	1725	437	54	1465
Sad-iron heater.....	J. G. Bailey.....	451,104	Apr. 28	2256	558	55	463
Sad-iron heater.....	A. F. Chable and E. M. Roberts.....	447,445	Mar. 3	285	72	54	1171
Sad-iron heater.....	A. Jacoby.....	444,584	Jan. 13	952	247	54	197
Sad-irons. Machine formaking semicircular wooden handles for.....	J. A. Slater.....	456,316	July 21	1601	423	56	322
Sad-irons. Waxing-pad for.....	W. A. and H. E. Abbott.....	456,686	July 28	2212	586	56	448
Saddle.....	C. Bernhard.....	450,779	Apr. 21	1751	425	55	357
Saddle. Gig.....	F. M. Friegel.....	450,067	Apr. 7	615	153	55	119
Saddle. Gig.....	F. N. Hackett.....	461,384	Oct. 13	1315	332	57	262
Saddle-girths. Device for tightening.....	F. von Eulenfeld.....	455,745	July 14	738	194	56	151
Saddle. Harness.....	T. W. Colvin.....	461,404	Oct. 13	1352	341	57	269
Saddle. Harness.....	M. M. Green.....	457,613	Aug. 11	1131	288	56	752
Saddle. Harness.....	E. L. Howe.....	465,270	Dec. 15	2014	515	57	1537
Saddle. Harness.....	J. Latil.....	455,597	July 7	486	136	50	94
Saddle. Harness.....	W. O. Miller.....	444,761	Jan. 13	1232	320	54	219
Saddle. Harness.....	E. G. Robertson.....	465,115	Dec. 15	1768	447	57	1490
Saddle. Harness.....	J. Smith.....	452,443	May 19	1622	402	55	898
Saddle. Harness.....	O. Taher.....	463,998	Nov. 24	2844	736	57	1123
Saddle. Harness.....	W. O. Thayer and G. F. Wittkopf.....	462,176	Oct. 27	2632	656	57	526
Saddle. Harness.....	J. Thomas.....	458,781	Sept. 1	352	85	56	1133
Saddle-jack.....	E. E. Bateman.....	460,422	Sept. 29	2942	735	56	1660
Saddle. Riding.....	W. H. Forker.....	447,723	Mar. 3	714	179	54	1253
Saddle. Riding.....	D. Heermance.....	454,211	June 16	1545	406	55	1459
Safe.....	J. Farrel.....	453,181	June 2	7	2	55	1150
Safe.....	J. J. E. H. Payne.....	444,197	Jan. 6	357	88, 89	54	72
Safe.....	W. H. Reynolds.....	460,660	Oct. 6	200	51	57	42
Safe.....	J. White.....	447,709	Mar. 3	628	171	54	1248
Safe-armor.....	F. M. Williams.....	446,941	Feb. 24	2348	583	54	996
Safe-bolt-retracting device.....	F. M. Williams.....	446,940	Feb. 24	2347	583	54	995
Safe. Burglar-proof.....	W. Corliss.....	452,449	May 19	1633	407	55	900
Safe. Burglar-proof.....	P. F. King.....	457,122	Aug. 4	287	75	56	588
Safe. Burglar-proof.....	M. Mosler.....	458,637	Sept. 1	135	30	56	1092
Safe. Burglar-proof.....	M. Mosler. (Reissue).....	11,204	Nov. 21	2852	737	57	1125
Safe. Burglar-proof.....	P. Wilhelm.....	450,956	Apr. 21	2033	502	55	410
Safe-doors. Bolt-support for.....	A. B. Curtis.....	456,084	July 14	1237	325	56	244
Safe-doors. Mechanism for closing and opening.....	W. Corry.....	463,698	Nov. 24	2374	621	57	1034
Safe-front.....	P. F. King.....	451,695	May 5	386	94	55	652
Safe. Knockdown.....	H. J. Moyer.....	465,190	Dec. 15	1884	477	57	1512

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Safe-lock	A. Kirks	454,971	June 30	2789	{ 711 712 }	{ 55	1707
Safe or vault	W. Corliss	447,488	Mar. 3	371	91	54	1188
Safe or vault	W. H. Hollar	459,226	Sept. 8	1968	259	56	1279
Safe or vault	J. J. E. H. Payne	455,489	July 7	298	76	56	60
Safe or vault	C. O. Yale	465,510	Dec. 22	2408	{ 615 616 }	{ 57	1621
Safe. Portable coin	H. C. Hart	449,852	Apr. 7	317	82	55	63
Safe. Provision	W. A. Jones	465,710	Dec. 22	2720	694	57	16-2
Safe, vault, &c	T. M. Brintnall	456,690	July 28	2216	5-7	56	449
Safes, &c. Making shells or casings for	J. Baum	454,162	June 16	1474	3-7	55	1445
Safety-coupling	T. O. Perry	447,413	Mar. 3	232	59	54	1161
Safety-gate. Automatic	E. W. Jackson	463,194	Nov. 17	1551	404	57	868
Safety-pin	C. G. Deming	457,261	Aug. 4	529	138	56	631
Safety-pin	N. E. Hales and L. F. Reese	441,234	Jan. 6	412	102	54	81
Safety-pin	W. F. Hyatt	466,100	Dec. 29	3365	859	57	1816
Safety-rack	J. S. McIlhenny and J. C. Davison	450,419	Apr. 14	1183	2-9	55	232
Safety-spring. Auxiliary	W. M. Betts	459,886	Sept. 22	2136	537	56	1501
Safety-switch	H. N. Hopkins and E. H. Bryant	447,186	Feb. 24	2771	6-6	54	1075
Safety-switch. Automatic	G. M. Howe	454,169	June 16	1483	{ 389 390 }	{ 55	1447
Sage-brush and other plants. Machine for destroying	W. D. Arnett	459,971	Sept. 22	2255	566	56	1522
Sage-brush. Machine for cutting	J. L. Ish	452,544	May 19	1786	{ 449 450 }	{ 55	926
Sage-brush. Machine for destroying	W. D. Arnett	444,417	Jan. 13	680	1-0	54	144
Sail	G. Skinner	449,004	Mar. 24	2811	712	54	1679
Sail sheets. Handling double stay	W. H. Dare	460,466	Sept. 29	3007	753	56	1673
Sails. Rigging for	F. M. Wilson	455,030	June 30	2907	739	55	1729
Salesman and change-maker. Automatic	G. D. Morse and M. and D. W. Chase	447,343	Mar. 3	101	{ 27 28 29 }	{ 54	1137
Salesman. Automatic	M. H. Foster	464,067	Dec. 1	92	23, 24	57	1155
Salicylate of phenyldimethylpyrazolone	H. Lüttke and L. Scholvién	444,004	Jan. 6	33	.....	54	10
Salt-cellar	F. and G. W. Heyer	465,526	Dec. 22	2439	621	57	1628
Salt for table use. Preparing	C. E. Ongley	462,730	Nov. 10	807	211	57	716
Salt from brine. Apparatus for the manufacture of	R. C. Wilson	466,210	Dec. 29	3531	{ 903 904 }	{ 57	1848
Salt-grainer	M. M. Monsanto	455,572	July 7	442	117	56	85
Salt-pan	A. T. Dora	461,740	Oct. 20	1945	483	57	385
Salts. Treating Stassfurt	B. Peitzsch	446,267	Feb. 10	1270	.....	54	763
Sample case	H. Noe	445,857	Feb. 3	570	139	54	623
Sampler	C. J. Menges	444,887	Jan. 20	1463	379	54	302
Sand and gravel cleaning machine	F. J. Hoyt	449,417	Mar. 31	3506	{ 882 883 }	{ 54	1817
Sand and gravel heater	E. H. Callaway	448,408	Mar. 17	1-73	471	54	1493
Sand-band	A. Ball	447,287	Mar. 3	5	1, 2	54	1119
Sand-band	A. Ball	447,288	Mar. 3	6	2, 3	54	1119
Sand-band	S. Heffley	459,232	Sept. 8	1075	262	56	1281
Sand-band	F. S. Rolfe	447,351	Mar. 3	137	37	54	1144
Sand-band and thill-coupling. Combined	G. T. Williams	456,369	July 21	1730	457	56	347
Sand beds for molds. Forming	S. J. Adams	459,102	Sept. 8	880	212	56	1244
Sand-box	F. G. Corning	451,455	May 5	11	3	55	581
Sand-box	F. G. Corning	451,456	May 5	13	4	55	5-2
Sand-box	F. G. Corning	451,457	May 5	15	4	55	582
Sand-conveyer attachment	C. G. Choan	460,630	Oct. 6	158	39	57	33
Sand-distributor	F. G. Corning	451,458	May 5	17	4, 5	55	5-2
Sand-driver	J. M. McMaster	463,722	Nov. 24	2409	{ 631 632 }	{ 57	1041
Sand, emery, or analogous paper or cloth	E. A. Dubéy	449,930	Apr. 7	429	107	55	84
Sand mold	S. J. Adams	459,103	Sept. 8	883	212	56	1245
Sand-molds. Apparatus for forming	J. J. Kinzer, Jr	457,321	Aug. 4	635	167	56	651
Sand molds. Forming	S. J. Adams	455,145	June 30	3110	790	55	1769
Sand molds. Pattern for gates and runners in	S. J. Adams	455,146	June 30	3112	790	55	1769
Sand-molding machine	T. Mistelski	450,521	Apr. 14	1327	326	55	261
Sand-reel	D. C. Furman	455,530	July 7	369	94	56	72
Sand-screen	C. Prescott and M. H. Bennett	447,162	Feb. 24	2738	678	54	1068
Sand screen or filter	C. Monjean	463,759	Nov. 24	2460	643	57	1050
Sandpapering and friezing machine. Combined	L. E. Paine	450,337	Apr. 14	1051	258	55	208
Sandpapering-head	J. F. Rogers and L. J. Gregor	449,950	Apr. 7	453	114	55	9
Sandpapering-machine	E. F. Autenrieth	457,068	Aug. 4	217	32, 53	56	574
Sandpapering-machine	V. Brotz	449,435	Mar. 31	3535	{ 891 892 }	{ 54	1822
Sandpapering-machine	A. K. Devenport	445,749	Feb. 3	385	98	54	589
Sandpapering-machine	J. S. Kenyon and O. W. Williams	456,362	July 21	1686	442	56	338
Sandpapering-machine	H. Spoor	456,861	July 28	2517	{ 660 661 }	{ 56	502
Sandpapering-machine	E. D. Swift	444,155	Jan. 6	290	69, 70	54	59
Sandpapering-machines. Drum for	E. F. Autenrieth	456,298	July 21	1579	417	56	318
Sandpapering, rubbing, and polishing machine	W. J. Maddox	448,721	Mar. 24	2381	597	54	1507
Sanitary closet	A. O'Brien	456,678	July 28	2203	584	56	446
Sanitary closet	W. S. Ross	460,326	Sept. 29	2-03	{ 698 699 }	{ 56	1635
Sash and window-screen fastener. Adjustable storm	L. Hall	453,171	May 26	2-27	709	55	1134
Sash-balance	J. S. Baker	452,208	May 12	1237	312	55	815
Sash-balance	W. Berry	456,715	July 28	2262	599	56	458
Sash-balance	W. Berry	456,716	July 28	2264	{ 599 600 }	{ 56	458
Sash-balance	J. P. Brown	454,009	June 9	1251	326	55	1395
Sash-balance	R. Burges	452,258	May 12	1315	320	55	831
Sash-balance	J. F. Christian	452,912	May 26	2368	599	55	1047
Sash-balance	F. S. Clarkson	463,2-5	Nov. 17	1690	442	57	896
Sash-balance	G. C. Gardner	456,948	Aug. 4	48	11	56	541
Sash-balance	G. C. Gardner	456,949	Aug. 4	48	11	56	541

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Sash-balance	R. M. Gardner	450,667	Apr. 21	1594	383	55	327
Sash-balance	S. N. Goldy	444,097	Jan. 6	184	46	54	38
Sash-balance	S. N. Goldy	457,195	Aug. 4	405	106	56	609
Sash-balance	A. Ingalls	450,021	Apr. 7	552	137	55	107
Sash-balance	A. Johnson	456,492	July 21	1894	501	56	378
Sash-balance	F. P. Johnson	449,538	Mar. 31	3689	926	54	1852
Sash-balance	J. P. Magney	445,376	Jan. 27	2220	576	54	459
Sash-balance	J. P. Magney	458,033	Aug. 18	1815	473	56	891
Sash-balance	B. Marshall	451,616	June 23	2189	565	55	1586
Sash-balance	J. McArthur	462,725	Nov. 10	800	209	57	714
Sash-balance	R. McMillen	461,506	Oct. 20	1568	385	57	316
Sash-balance	P. J. Shaeffer	456,437	July 21	1811	479	56	361
Sash-balance	J. N. Weiser	452,219	May 12	1304	326	55	830
Sash-balance	C. E. Whipple	452,297	May 12	1368	341	55	841
Sash-bar machine	W. H. Neakes	449,130	Mar. 31	3011	761	54	1726
Sash. Combined balance and swinging	A. Weingaertner	462,609	Nov. 3	610	152	57	668
Sash-cord clamp	R. Pennington	456,277	July 21	1537	408	56	311
Sash-cord fastener	J. Finlay	461,746	Oct. 20	1951	485	57	388
Sash-cord fastener	J. P. Gardner	460,859	Oct. 6	496	127	57	98
Sash-cord fastener	J. G. Kernecke	444,534	Jan. 13	873	227	54	182
Sash-cord guide	E. Alexander	456,461	July 21	1844	489	56	368
Sash-cord guide	W. R. Fox	462,248	Nov. 3	44	11	57	560
Sash-cord guide	J. Knecht	444,363	Jan. 6	593	152	54	118
Sash-cord guide	S. Palmer	461,370	Oct. 13	1122	287	57	224
Sash-cord guide	J. R. Walsh	445,578	Feb. 3	90	21	54	529
Sash-cord pliers	G. H. Duvall	464,860	Dec. 8	1309	328	57	1395
Sash-fastener	A. B. Adams	452,823	May 26	2226	558	55	1022
Sash-fastener	C. E. Angell	453,995	June 9	1094	2-6	55	1363
Sash-fastener	A. Armstrong	464,413	Dec. 1	631	155	57	1254
Sash-fastener	B. Baldwin	447,753	Mar. 10	771	191	54	1271
Sash-fastener	E. D. Bangs	449,895	Apr. 7	378	96	55	74
Sash-fastener	E. F. Barrows	461,251	Oct. 13	1101	281	57	220
Sash-fastener	J. N. Beall	445,033	Jan. 20	1693	435	54	347
Sash-fastener	E. A. Beisel	454,513	June 23	2008	521	55	1555
Sash-fastener	C. O. Birney	465,517	Dec. 22	2419	617	57	1625
Sash-fastener	C. O. Birney	465,518	Dec. 22	2420	618	57	1625
Sash-fastener	C. M. Burgess	465,158	Dec. 15	1835	466	57	1502
Sash-fastener	O. R. Chapin	443,177	June 2	1	1	55	1149
Sash-fastener	A. B. Clark	463,984	Nov. 24	2816	730	57	1118
Sash-fastener	D. Cote	456,759	July 28	2354	620	56	473
Sash-fastener	W. Coulter	451,388	Apr. 28	2710	673	55	549
Sash-fastener	T. J. Daniel	459,676	Sept. 15	1800	452	56	1429
Sash-fastener	J. De Mars	463,494	Nov. 17	2019	529	57	959
Sash-fastener	W. E. Dixon	447,068	Feb. 24	2563	636	54	1036
Sash-fastener	E. W. Dunlap	455,708	July 7	667	176	56	129
Sash-fastener	C. A. Frisbie	446,969	Feb. 24	2391	595	54	1004
Sash-fastener	I. Gilea	447,404	Mar. 3	217	57	51	1158
Sash-fastener	G. M. Griswold	453,339	June 2	252	67	55	1196
Sash-fastener	J. C. Howe	448,882	Mar. 24	2629	660	54	1643
Sash-fastener	W. S. James	461,020	Oct. 13	742	191	57	151
Sash-fastener	A. Johnson	456,129	July 14	1301	341	56	258
Sash-fastener	W. H. King	452,545	May 19	1787	450	55	927
Sash-fastener	C. Knapp	463,518	Nov. 17	2048	537	57	965
Sash-fastener	G. H. Lasar	456,996	Aug. 4	105	26	56	553
Sash-fastener	W. H. Lloyd	462,928	Nov. 10	1143	295	57	780
Sash-fastener	F. A. Marcell	457,615	Aug. 11	1133	289	56	753
Sash-fastener	J. L. McKay	461,037	Oct. 13	765	196	57	155
Sash-fastener	R. W. McMaster	466,253	Dec. 29	3603	923	57	1861
Sash-fastener	J. A. Montgomery	464,265	Dec. 1	419	99	57	1214
Sash-fastener	E. A. Pomyea	466,184	Dec. 29	3197	893	57	1842
Sash-fastener	G. B. Sloan, Jr.	454,628	June 23	2211	569	55	1590
Sash-fastener	M. Sommeschein	452,200	May 12	1223	309	55	812
Sash-fastener	J. C. Waldrip	461,445	Dec. 1	672	164	57	1263
Sash-fastener	J. Wander	450,344	Apr. 14	1061	260	55	209
Sash-fastener	J. C. Wilson	457,066	Aug. 4	214	52	56	573
Sash-fastener	H. C. Woodstock	455,085	June 30	3004	764	55	1749
Sash for hot-houses, skylights, &c	F. J. Viscardi	462,783	Nov. 10	8-9	233	57	731
Sash-holder	C. S. Apple	452,463	May 19	1668	418	55	905
Sash-holder	W. J. Atchison	458,139	Aug. 18	1968	510	56	921
Sash-holder	A. Ayers	448,108	Mar. 10	1356	347	54	1384
Sash-holder	O. Beebe	456,078	July 14	1230	323	56	242
Sash-holder	J. Blocher	451,025	June 16	1276	332	55	1407
Sash-holder	J. M. Brohard	448,498	Mar. 17	2012	503	54	1519
Sash-holder	S. Collins	453,881	June 9	1077	281	55	1360
Sash-holder	G. A. Cooper	451,319	Apr. 28	2617	645	55	532
Sash-holder	L. A. Fort	458,158	Aug. 25	2003	518	56	935
Sash-holder	D. W. Gaskill	461,167	Oct. 13	946	244	57	188
Sash-holder	E. Hansen	452,269	May 12	1331	332	55	834
Sash-holder	W. M. Hazel	448,339	Mar. 17	1771	448	54	1474
Sash-holder	E. Z. Kidd	455,215	June 30	3223	818	55	1791
Sash-holder	G. W. Morstatt	460,690	Oct. 6	259	63	57	52
Sash-holder	E. Naegele	466,104	Dec. 29	3371	861	57	1817
Sash-holder	E. Sweet and G. M. Fergason	458,767	Sept. 1	328	79	56	1128
Sash-holder	J. Weathers	460,413	Sept. 29	2927	731 732	56	1658
Sash-lock	W. W. Doty	452,776	May 26	2153	539	55	1007
Sash-lock	H. R. Estes	453,553	June 2	587	150	55	1259
Sash-lock. Automatic	L. R. Schmalhausen	452,723	May 19	2067	520	55	982
Sash-lock. Automatic	C. F. Varney	462,1-3	Oct. 27	2649	663	57	529
Sash. Metallic hinged	L. A. Walsworth	456,454	July 21	1-35	486	56	366
Sash-operating device	W. J. B. Hunter	464,567	Dec. 8	860	211	57	1308
Sash-operator	A. J. Chapel	463,095	Nov. 10	1383	357	57	828
Sash or door. Window	J. S. Fetherson	456,322	July 21	1612	426	56	325
Sash. Railway-car or other window	S. Collins	452,098	May 12	1054	267	55	781

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Sash. Reversible.....	M. McVickar.....	460,342	Sept. 29	2833	{ 704 705 }	56	1641
Sash. Tennis.....	E. W. Whittaker.....	449,020	Mar. 24	2830	{ 717 714 }	54	1683
Sash. Ventilating.....	P. and W. Deissler.....	459,834	Sept. 22	2048	{ 514 515 }	56	1484
Sash. Window.....	J. B. Cohen.....	455,825	July 14	870	{ 228 229 }	56	175
Sash. Window.....	A. and A. Iske.....	462,488	Nov. 3	420	{ 102 103 }	57	630
Sash. Window.....	T. F. Longenecker.....	451,596	May 5	228	{ 55 56 }	55	623
Sash. Window.....	L. H. McClellan.....	449,562	Mar. 31	3723	{ 935 936 }	51	1858
Sash. Window.....	F. Mesker and T. O. Arbegust.....	448,354	Mar. 17	1790	{ 452 453 }	54	1477
Sash. Window.....	F. Mesker and T. O. Arbegust.....	460,479	Sept. 29	3030	{ 759 760 }	56	1677
Sash. Window.....	M. E. Reilly.....	457,010	Aug. 4	121	{ 30 31 }	56	557
Sash. Window.....	F. J. Rice.....	462,932	Nov. 10	1149	{ 297 298 }	57	781
Sash. Window.....	A. Rudolph.....	449,764	Apr. 7	185	{ 46 47 }	55	38
Satchel and lunch-bag. Combined.....	D. L. Brown.....	450,988	Apr. 21	2091	{ 515 516 }	55	421
Satchel-harness. Telescopic.....	E. W. Gilman.....	448,426	Mar. 17	1901	{ 477 478 }	54	1499
Sausage-machine.....	E. Rogers.....	452,338	May 12	1278	{ 322 323 }	55	825
Sausage. Preparing.....	H. Hirschauer.....	448,341	Mar. 17	1744	{ 37 38 }	54	1474
Sausage-stuffing machine.....	G. W. Hotzman.....	444,052	Jan. 6	109	{ 24 25 }	54	24
Savings-bank.....	W. H. Ellis.....	458,047	Aug. 18	1836	{ 479 480 }	56	896
Savings-bank. Pocket.....	F. H. Brown.....	450,216	Apr. 14	840	{ 211 212 }	55	169
Savings-receptacle.....	C. O. Burns.....	453,879	June 9	1074	{ 280 281 }	55	1360
Savings-receptacle.....	C. O. Burns.....	457,576	Aug. 11	1071	{ 274 275 }	56	712
Saw.....	L. F. Achorn.....	465,051	Dec. 15	1647	{ 419 420 }	57	1468
Saw.....	J. Bowles.....	445,239	Jan. 27	2025	{ 522 523 }	51	420
Saw.....	J. Class.....	439,477	Sept. 15	1469	{ 369 370 }	56	1367
Saw.....	W. Dunbar.....	465,969	Dec. 29	3139	{ 805 806 }	57	1772
Saw.....	L. Rothgery.....	452,391	May 19	1535	{ 380 381 }	55	881
Saw-bench guide.....	R. E. Kidder.....	456,380	July 21	1718	{ 455 456 }	56	314
Saw-bit holder.....	S. H. Chase.....	455,169	June 30	3150	{ 799 800 }	55	1777
Saw-blank.....	C. T. Evans.....	450,636	Apr. 21	1850	{ 450 451 }	55	374
Saw-brazing clamp.....	W. C. Okey.....	453,983	June 9	1219	{ 316 317 }	55	1389
Saw. Buck.....	G. R. Hardison.....	459,399	Sept. 15	1348	{ 337 338 }	56	1344
Saw. Buck.....	J. Woerner.....	461,063	Oct. 13	801	{ 205 206 }	57	161
Saw-buck attachment.....	C. W. Sandy.....	461,278	Oct. 13	1136	{ 289 290 }	57	226
Saw. Circular.....	H. W. Clark.....	464,855	Dec. 8	1302	{ 326 327 }	57	1393
Saw. Circular.....	T. L. Slaughter.....	449,005	Mar. 24	2812	{ 712 713 }	54	1679
Saw-cleaner.....	T. V. Elliott.....	458,523	Aug. 25	2613	{ 636 637 }	56	1049
Saw cleaner. Gin.....	J. W. Webb.....	447,218	Feb. 24	2834	{ 703 704 }	54	1088
Saw. Crosscut.....	W. Kidd.....	462,768	Nov. 10	895	{ 227 228 }	57	726
Saw dressing and jointing device.....	J. H. Leith.....	444,446	Jan. 13	724	{ 190 191 }	54	152
Saw-file guide.....	W. M. Haworth.....	455,327	July 7	41	{ 12 13 }	56	11
Saw filing and setting machine.....	W. H. Parry.....	445,858	Feb. 3	571	{ 139 140 }	54	623
Saw-filing device.....	G. Morrison.....	455,727	July 7	701	{ 184 185 }	56	135
Saw-filing device.....	S. Underwood.....	453,223	June 2	64	{ 17 18 }	55	1160
Saw-filing machine.....	F. Edge.....	454,011	June 9	1254	{ 326 327 }	55	1396
Saw-filing machine.....	R. Kundtz and J. Gedeon.....	459,912	Sept. 22	2179	{ 547 548 }	56	1508
Saw-filing vise.....	A. S. Berry.....	456,373	July 21	1709	{ 452 453 }	56	343
Saw frame. Hack.....	J. E. Coleman.....	453,994	June 9	1234	{ 321 322 }	55	1392
Saw-gage.....	R. P. E. Vary.....	449,785	Apr. 7	219	{ 55 56 }	55	44
Saw-gin.....	J. A. Baclman.....	462,189	Oct. 27	2657	{ 665 666 }	57	531
Saw-gin.....	B. W. Marston.....	453,933	June 9	1147	{ 300 301 }	55	1375
Saw guard. Gang.....	K. Dolen.....	450,007	Apr. 7	534	{ 133 134 }	55	101
Saw guard. Gin.....	W. S. Killingsworth.....	458,466	Aug. 25	2511	{ 611 612 }	56	1030
Saw-guide.....	W. A. Campbell.....	449,844	Apr. 7	307	{ 80 81 }	55	60
Saw-guide.....	P. Prybil.....	455,631	Dec. 22	2607	{ 662 663 }	57	1639
Saw-guide.....	W. H. Rice.....	444,851	Jan. 20	1368	{ 354 355 }	54	24
Saw guide and rounder.....	F. M. Weaver and F. F. Thoma.....	449,984	Apr. 7	503	{ 125 126 }	55	97
Saw guide. Band.....	A. Hettel.....	446,568	Feb. 17	1745	{ 429 430 }	54	871
Saw guide. Band.....	J. Plumridge, Jr., and S. Jackson.....	450,871	Apr. 21	1909	{ 468 469 }	55	386
Saw guide. Band.....	G. F. Striegel.....	459,600	Sept. 15	1673	{ 418 419 }	56	1405
Saw guide. Band.....	C. E. Wright.....	446,127	Feb. 10	1068	{ 249 250 }	54	716
Saw guide. Band.....	W. L. Zumbro.....	452,408	May 19	1568	{ 389 390 }	55	888
Saw-gummer.....	J. B. Baird and J. Holloran.....	452,157	May 12	1152	{ 291 292 }	55	799
Saw gummer and sharpener. Gin.....	G. W. Davis.....	458,124	Aug. 18	1946	{ 506 507 }	56	918
Saw-gumming apparatus.....	C. R. Johnson.....	463,424	Nov. 17	1924	{ 502 503 }	57	940
Saw-gumming machine.....	F. H. Abbott.....	444,870	Jan. 20	1436	{ 373 374 }	54	297
Saw-handle.....	G. G. Kerr.....	458,292	Aug. 25	2237	{ 547 548 }	56	978
Saw-handle.....	J. M. and N. H. Long.....	461,502	Oct. 20	1563	{ 384 385 }	57	315
Saw-handle.....	A. M. Roscoe.....	459,652	Sept. 15	1766	{ 444 445 }	56	1422
Saw-handle attachment.....	T. Malings.....	462,982	Nov. 10	1215	{ 316 317 }	57	795
Saw helper. Spring.....	A. Middleton.....	457,000	Aug. 4	109	{ 27 28 }	56	551
Saw-jointer.....	R. F. Pratt.....	444,848	Jan. 20	1365	{ 353 354 }	54	283
Saw-jointer.....	G. H. Rich.....	451,235	Apr. 28	2189	{ 614 615 }	55	506
Saw jointing and setting device.....	R. N. Magee.....	463,735	Nov. 24	2426	{ 636 637 }	57	1014
Saw-lubricator. Automatic.....	R. J. Edwards.....	461,074	Oct. 13	818	{ 210 211 }	57	164
Saw machine. Band.....	F. McDonough.....	457,055	Aug. 4	181	{ 45 46 }	56	768
Saw machine. Self-feeding rip.....	F. McDonough.....	452,110	May 12	1075	{ 272 273 }	55	785
Saw machine. Swing.....	E. F. Autenrieth.....	460,699	Oct. 6	275	{ 66 67 }	57	54
Saw-mandrels. Means for lubricating.....	J. M. Riley.....	464,943	Dec. 8	1432	{ 360 361 }	57	1419
Saw-mill.....	W. H. C. Sexton.....	465,117	Dec. 15	1770	{ 447 448 }	57	1490
Saw mill. Band.....	C. E. Cleveland.....	451,106	Apr. 28	2258	{ 540 541 }	55	463
Saw mill. Band.....	A. Cunningham. (Reissue).....	11,203	Nov. 24	2847	{ 737 738 }	57	1124
Saw mill. Band.....	I. N. Kendall.....	447,953	Mar. 10	1118	{ 281 282 }	54	1337
Saw mill. Band.....	J. T. Milne.....	455,635	July 7	545	{ 142 143 }	56	105

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Saw mill. Band.....	E. S. Richards.....	446,293	Feb. 10	1316	321	54	772
Saw-mill-carriage offset.....	J. H. Vorstman and E. F. Niedecken.....	462,286	Nov. 3	105	26	57	571
Saw-mill carriages. Feed mechanism for.....	J. G. Stoner.....	444,321	Jan. 6	532	138 } 139 }	54	107
Saw-mill carriages. Log-turner for.....	W. C. Hall and W. U. Sweetser.....	446,346	Feb. 10	1392	340	54	788
Saw-mill carriages. Offsetting mechanism for.....	C. E. Cleveland.....	453,234	June 2	82	22	55	1164
Saw-mill carriages. Side-throw mechanism for.....	J. Bickhart.....	452,660	May 19	1965	493	55	962
Saw-mill dog.....	W. H. Mitchell.....	458,912	Sept. 1	569	138	56	1174
Saw-mill dog.....	F. R. Moodie and V. Martin.....	457,971	Aug. 18	1725	452	56	874
Saw-mill dog.....	J. D. Owen.....	459,526	Sept. 15	1553	386 } 387 }	56	1382
Saw-mill dog.....	W. A. Pannebaker.....	446,979	Feb. 24	2407	599	54	1007
Saw-mill dog.....	W. H. Prouty.....	450,035	Apr. 7	575	143	55	111
Saw-mill feed.....	P. Stovall.....	461,719	Oct. 20	1912	473	57	320
Saw mill feed.....	F. B. Williams.....	456,456	July 21	1836	487 } 488 }	56	367
Saw mill. Gang.....	T. S. Wilkin.....	444,965	Jan. 20	1603	409 } 410 }	54	328
Saw mill. Gang.....	T. S. Wilkin.....	446,197	Feb. 10	1133	278	54	736
Saw mill. Gang.....	T. S. Wilkin.....	447,092	Feb. 24	2593	643	54	1042
Saw-mill indicator.....	J. I. Hatfield.....	451,860	May 5	626	155	55	698
Saw-mill set-works.....	H. Gawley.....	451,476	May 5	47	12	55	588
Saw-mill set-works.....	W. J. Gladish.....	446,443	Feb. 17	1556	382	54	833
Saw-mill set-works.....	E. Reynolds, A. J. Shaw, and W. H. Trout.....	448,544	Mar. 17	2072	519 } 520 }	54	1531
Saw-mill skid.....	B. H. Lawter.....	464,137	Dec. 1	193	47	57	1174
Saw-mills. A attachment for automatically advancing the knees of.....	J. T. Farrow.....	446,832	Feb. 17	2147	534	54	952
Saw mills. A attachment for gang.....	D. Hazard.....	462,797	Nov. 10	913	238	57	737
Saw-mills. Log-turner for.....	H. O. Lange.....	463,334	Nov. 17	1772	464	57	910
Saw mills. Pulley for band.....	R. F. Barker.....	451,590	May 5	222	53	55	621
Saw. Pole or wood.....	E. G. Hobler.....	448,038	Mar. 10	1264	322	54	1384
Saw-set.....	J. P. Beck.....	461,305	Oct. 13	1177	300	57	236
Saw-set.....	S. W. Buence and J. Schnetz.....	457,179	Aug. 4	379	97	56	605
Saw-set.....	S. J. Crouch.....	457,184	Aug. 4	386	99	56	606
Saw-set.....	A. Fager.....	447,722	Mar. 3	713	178	54	1253
Saw-set.....	R. James.....	459,548	Sept. 15	1586	397	56	1389
Saw-set.....	C. F. Knauer.....	461,836	Oct. 27	2112	520	57	426
Saw-set.....	C. F. Leopold.....	451,494	May 5	75	19	55	594
Saw-set.....	C. Mosser.....	465,581	Dec. 22	2530	644	57	1645
Saw-set.....	T. Shepard.....	458,275	Aug. 25	2215	543	56	974
Saw-set.....	I. Smith.....	457,549	Aug. 11	1028	264	56	733
Saw-set.....	C. C. Taintor.....	451,644	May 5	307	75	55	637
Saw-set.....	C. C. Taintor.....	452,399	May 19	1547	384	55	884
Saw-set.....	T. J. Weaver.....	460,190	Sept. 29	2589	645 } 646 }	56	1594
Saw setting and filing machine.....	C. A. Erlandson.....	454,079	June 23	2282	585	55	1604
Saw setting and filing machine.....	J. Taylor.....	444,163	Jan. 6	301	72, 73	54	61
Saw setting and indicating device.....	A. Harman.....	447,322	Mar. 3	66	18	54	1130
Saw-setting machine.....	T. S. Disston.....	453,040	May 26	2577	651	55	1089
Saw-setting machine.....	L. L. Northrup.....	448,742	Mar. 24	2416	604	54	1604
Saw-sharpening machine.....	W. W. Coulter.....	452,691	May 19	2011	503 } 504 }	55	971
Saw-sharpening machine.....	F. Schmaltz.....	453,431	June 2	409	106 } 107 }	55	1224
Saw-sharpening machine.....	B. F. Sheets.....	460,452	Sept. 29	2978	745	56	1668
Saw-sharpening machine.....	M. J. Wheeler.....	458,203	Aug. 25	2078	537 } 538 }	56	948
Saw-smithing machine.....	N. W. Mortorff.....	450,178	Apr. 14	779	197	55	158
Saw-swage.....	W. W. Annable.....	458,841	Sept. 1	455	109	56	1152
Saw-swage.....	J. Hanchett.....	445,504	Jan. 27	2410	629	54	495
Saw-swage.....	D. B. Hanson.....	447,111	Feb. 24	2636	651	54	1049
Saw-swage.....	E. Hoag.....	445,179	Jan. 27	1938	500	54	402
Saw-swaging machine.....	M. S. Nelms.....	464,382	Dec. 1	583	143	57	1245
Saw-swaging machine.....	J. B. Rhodes.....	449,431	Mar. 31	3530	889	54	1821
Saw-table gage.....	R. Knehne.....	449,369	Mar. 31	3421	860	54	1799
Saw-tables. Bevel-guide for.....	H. B. Smith.....	453,893	June 9	1092	286	55	1363
Saw-teeth. Device for shaping swaged.....	J. F. Pribnow.....	463,547	Nov. 17	2112	556	57	976
Saw-tooth.....	W. E. Brooke.....	446,810	Feb. 17	2111	525	54	944
Saw-tooth swage.....	J. B. Rhodes.....	445,339	Jan. 27	2173	563	54	450
Saws. Automatic lubricator for.....	R. J. Edwards.....	444,696	Jan. 13	1116	288	54	229
Saws. Inserted tooth for.....	W. J. Rogers and J. Howe.....	458,120	Aug. 18	1941	504	56	917
Saws. Machine for filing and setting.....	C. G. Parker.....	456,276	July 21	1534	407 } 408 }	56	310
Saws. Machine for side filing circular.....	J. W. Stokoe.....	459,821	Sept 22	2027	508	56	1479
Saws. Manufacturing.....	C. Prouty.....	461,509	Oct. 20	1585	388	57	319
Saws. Metal frame for.....	J. V. Durand.....	458,827	Sept. 1	436	105	56	1148
Saws. Metal handle for crosscut.....	L. Olmstead.....	458,552	Aug. 25	2646	644	56	1057
Saws. Throat-piece for scroll and other.....	T. B. Deniston.....	461,325	Oct. 13	1205	307	57	241
Saws. Weather-board-sawing attachment for circular.....	L. E. Paine.....	448,162	Mar. 10	1439	368	54	1401
Sawing-machine.....	V. Beauregard.....	462,073	Oct. 27	2471	613	57	495
Sawing-machine.....	W. Besser.....	457,807	Aug. 18	1439	373 } 374 }	56	821
Sawing-machine.....	J. B. and J. P. Coan.....	463,097	Nov. 10	1385	358	57	829
Sawing-machine.....	W. H. Coffelt and J. G. Viereck, Jr.....	455,172	June 30	3156	800	55	1778
Sawing-machine.....	H. Cole.....	459,959	Sept. 22	2237	562	56	1519
Sawing-machine.....	J. B. Ellis.....	454,819	June 23	2506	644 } 645 }	55	1646
Sawing-machine.....	B. E. and A. F. Harreld.....	445,505	Jan. 27	2412	629	54	495
Sawing-machine.....	G. W. Mason, N. Shaw, and G. H. Hopper.....	453,598	June 2	654	168	55	1271
Sawing-machine.....	P. Putnam.....	447,903	Mar. 10	1039	260 } 261 }	54	1322

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Sawing-machine	W. H. H. Spradlin	447,982	Mar. 10	1176	298	54	1347
Sawing-machine	H. C. Stavor	461,455	Oct. 20	1434	361	57	291
Sawing-machine	J. F. Van Severen	465,770	Dec. 22	2810	{ 730 721 }	57	1700
Sawing-machine. Band	D. C. Markham	448,650	Mar. 24	2278	571	54	1576
Sawing-machine. Block	W. J. Perkins	463,233	Nov. 17	1606	419	57	879
Sawing-machine boring attachment	E. F. Barnes	448,195	Mar. 17	1508	384	54	1424
Sawing-machine. Circular	V. Beauregard and C. S. Gooding	462,293	Nov. 3	117	29, 30	57	573
Sawing-machine. Circular	J. Luger	456,364	July 21	1682	413	56	338
Sawing-machine gage	C. Wehner	462,419	Nov. 3	326	80	57	612
Sawing-machine. Hand	A. J. Troeger and F. M. L. Schneider	454,308	June 16	1688	441	55	1487
Sawing-machine. Power-feed	W. J. Edwards	447,812	Mar. 10	885	{ 230 221 }	54	1293
Sawing-machine. Scroll	J. Laird	444,071	Jan. 6	145	36	54	32
Sawing-machine. Self-feed rip	L. E. Paine	448,163	Mar. 10	1440	368	54	1401
Sawing-machine turn-table	J. A. Campbell	454,426	June 16	1875	{ 490 491 }	55	1521
Sawing-machine. Wood	G. L. Cummings	446,510	Feb. 17	1659	405	54	854
Sawing-machine. Wood	H. A. Holt	451,233	Apr. 28	2486	613	55	506
Scaffold	J. L. Kelley	461,177	Dec. 1	235	63	57	1184
Scaffold-bracket	G. E. Benton	457,949	Aug. 18	1684	442	56	867
Scaffold-bracket	S. Van Vliet	446,802	Feb. 17	2101	523	54	942
Scaffold-horse	G. Kautz	460,583	Oct. 6	63	17	57	14
Scaffold-poles. Apparatus for securing together	J. C. Montgomerie	447,838	Mar. 10	932	233	54	1301
Scaffold. Portable	A. T. Nygren	447,898	Mar. 10	1031	259	54	1320
Scaffold. Portable	A. Thibault	462,934	Nov. 10	1150	298	57	781
Scaffold-support. Adjustable	J. J. Hammer	450,570	Apr. 14	1385	342	55	273
Scaffolding. Adjustable bracket for	M. P. Holmes	446,682	Feb. 17	1917	474	54	904
Scaffolding. Trestle for	J. Brazier	462,686	Nov. 10	744	193	57	703
Scale	U. Dreesman and S. H. Puterbaugh	458,803	Sept. 1	382	92	56	1138
Scale	W. A. Wright	451,677	May 5	357	88	55	647
Scale. Adjustable dividing	A. B. Calkins	458,967	Sept. 1	650	159	56	1192
Scale and indicator. Automatic weighing	A. B. Röver	446,208	Feb. 10	1149	{ 281 282 }	54	739
Scale and measuring and lifting machine. Coin-controlled	C. G. Strubler	458,815	Sept. 1	400	{ 96 97 98 }	56	1142
Scale attachment	J. A. Werner	449,986	Apr. 7	506	126	55	98
Scale. Automatic	F. C. Schmidt	455,120	June 30	3064	{ 779 780 }	55	1760
Scale. Automatic electric weighing	J. V. Davis	449,468	Mar. 31	3593	905	54	1833
Scale. Automatic grain	F. H. Richards	465,535	Dec. 22	2454	{ 625 626 627 }	57	1630
Scale. Balance	S. D. Brastow and J. E. Rice	455,588	July 7	473	123	56	92
Scale. Balance	R. M. Shaffer	460,036	Sept. 22	2342	587	56	1540
Scale. Baling and weighing	J. S. Watters	454,953	June 30	2760	703	55	1701
Scale-beam	S. Kethledge	448,437	Mar. 17	1921	483	54	1502
Scale-board dishes. Machine for forming and placing metal pieces on	T. J. Haden	447,316	Mar. 3	52	13, 14	54	1128
Scale. Car	G. G. F. Boswell	460,521	Sept. 29	3108	777	56	1694
Scale. Cloth	A. J. Conen	450,002	Apr. 7	529	132	55	103
Scale. Coin-controlled weighing	J. M. S. Blauvelt	448,200	Mar. 17	1513	386	54	1425
Scale. Coin-operated platform weighing	N. M. Lowe	449,626	Mar. 31	3850	964	54	1881
Scale. Coin-operated weighing	G. G. Merry	453,787	June 9	965	251	55	1339
Scale. Drill and tap	B. H. Pomeroy	447,475	Mar. 3	352	87	54	1184
Scale for railway-cars. Hydraulic weighing	C. R. Bache	454,249	June 16	1596	420	55	1469
Scale. Grain	A. W. Butts	448,316	Mar. 17	1724	436	54	1465
Scale. Grain	G. C. Flagg	448,761	Mar. 24	2446	611	54	1609
Scale. Hydrostatic	A. Gerdum	459,001	Sept. 8	706	173	56	1211
Scale. Micrometer	C. Sperry	452,054	May 12	972	247	55	768
Scale. Parallel-ruling	A. B. Calkins	458,966	Sept. 1	649	159	56	1192
Scale. Platform	C. Brunner	451,613	May 5	256	61	55	628
Scale. Platform	C. H. Huggett	452,606	May 19	1881	473	55	945
Scale poise. Platform	J. H. Stromeyer	445,825	Feb. 3	525	126	54	614
Scale. Rocking	J. H. Freeman, Jr.	465,174	Dec. 15	1862	472	57	1507
Scale. Self-registering	W. R. Johns	454,966	June 30	2777	{ 708 709 }	55	1704
Scale. Spring	C. R. Day	465,246	Dec. 15	1968	503	57	1529
Scale. Spring	J. Gérard	459,108	Sept. 8	891	214	56	1246
Scale. Spring	J. S. McIlvaine	452,278	May 12	1342	335	55	896
Scale. Spring weighing	P. Kiltz	454,052	June 16	1309	311	55	1414
Scale-support. Portable	J. M. Critcher	465,837	Dec. 29	2919	747	57	1730
Scale. Weighing	G. Lundberg	447,691	Mar. 3	665	166	54	1244
Scale. Weighing	C. C. Stuart	458,322	Aug. 25	2281	558	56	986
Scale. Weighing	J. P. West	446,309	Feb. 10	1337	325	54	777
Scale. Weighing and price	J. W. Culmer	448,911	Mar. 24	2671	{ 671 672 }	54	1652
Scale. Weighing and price	W. J. Humphreys	452,224	May 12	1260	318	55	821
Scale. Weighing and price	O. O. Ozias and E. Canby	448,837	Mar. 24	2553	641	54	1629
Scale. Weighing and price	W. H. Sanderson and O. O. Ozias	451,075	Apr. 28	2214	548	55	453
Scale-weight	A. C. Mott	447,136	Feb. 24	2695	668	54	1060
Scales. Automatic grain-weighing	J. H. Gunder and W. H. Pierce	452,029	May 12	909	{ 232 233 }	55	758
Scales. Corner-stand for weighing	H. O. Item	448,615	Mar. 17	2196	550	54	1554
Scales for railway-cars. Weighing	E. Duplessis	444,378	Jan. 6	614	158	54	121
Scales. Poise and price scale attachment for weighing	J. H. Milburn	460,668	Oct. 6	257	63	57	51
Scales. Scale-beam for weighing	W. C. James	463,195	Nov. 17	1532	404	57	869
Scales. Spring	G. H. Chafflon	444,093	Jan. 6	177	44	54	37
Scales. Wagon	L. G. Clawson	445,269	Jan. 27	2077	536	54	429
Scales	S. Yankauer	445,237	Jan. 27	2022	521	54	419
Scalper and grader	F. G. Boynton	462,618	Nov. 3	624	157	57	671
Scalper and grader	E. Noble and H. Snyder	458,592	Sept. 1	68	15	56	1079

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Scalper and grader	N. C. Westerfield	458,246	Aug. 25	2148	526	56	962
Scalper and purifier. Combined	D. Sewell	454,950	June 30	2755	702	55	1699
Scalping-machine	J. Pye	454,065	June 16	1331	348	55	1418
Scare-all or alarm. Mechanical	L. Lewis	461,379	Oct. 13	1308	330	57	260
Scarf-pin	Z. Rabby	454,380	June 16	1800	490	55	1506
Scarf-pin and the like	S. Goldner	453,715	June 9	853	220	55	1617
Scarf tip and fastener. Combined	J. M. Fox	463,268	Nov. 17	1672	437	57	892
Scissors	W. H. Sample	463,455	Nov. 17	1959	511	57	948
Scissors	N. A. Wheeler	456,870	July 28	2528	664	56	505
Scissors. Device for sharpening	S. R. Froideveaux	464,354	Dec. 1	551	135	57	1239
Scissors gage. Button-hole	A. I. Campbell	464,750	Dec. 8	1153	286	57	1363
Scissors or shears	J. Langenberg	453,908	June 9	1113	291	55	1367
Scissors, punch, and wire-cutter. Combined	J. W. Krank	464,075	Dec. 1	106	27	57	1158
Scissors, shears, &c. Making handles for	J. H. Davis	453,548	June 2	578	147	55	1257
Scoop	L. L. Hall	457,271	Aug. 4	546	143	56	634
Scoop	R. J. Masbach	447,888	Mar. 10	1010	254	54	1316
Scoop	W. Wells and J. Vowles	448,393	Mar. 17	1853	466	54	1489
Scoop. Weighing	L. Bartlett	446,179	Feb. 10	1108	271	54	731
Scoop. Wheeled	R. M. and W. H. Brooks	463,571	Nov. 17	2146	567	57	983
Scoop. Wheeled	E. H. Ryon	451,074	Apr. 28	2212	547	55	453
Scooter and shovel-plow	G. C. Green	457,047	Aug. 4	170	42	56	566
Score-card	R. E. Bean	453,754	June 9	906	235	55	1327
Scoring-machine	T. C. Baiter	452,631	May 19	1922	483	55	953
Sconer:							
See Grain-sconer.							
Scouring-roll	G. E. Warren	462,886	Nov. 10	1062	275	57	765
Scow	C. H. Souther and J. E. Chapman	459,420	Sept. 15	1384	347	56	1351
Scow. Sand	W. Osborn	465,724	Dec. 22	2737	698	57	1025
Scow. Steam warping	J. C. West	454,632	June 23	2217	571	55	1591
Scows. Ventilator for lighterage	T. Price	463,816	Nov. 24	2537	662	57	1066
Scraper. Dirt	D. F. Oliver	463,795	Nov. 24	2505	654	57	1059
Scraper. Dirt	D. W. Smith and J. K. Hopkins	461,174	Oct. 13	964	248	57	192
Scraper. Road	W. H. Crittenden	448,412	Mar. 17	1879	472	54	1494
Scraper. Road	C. E. Foster	460,126	Sept. 29	2499	622	56	1576
Scraper. Road	O. E. Moats	460,511	Sept. 29	3092	773	56	1690
Scraper. Road	H. O'Hare	466,291	Dec. 29	3670	938	57	1873
Scraper. Wheeled road	A. Harpold	458,455	Aug. 25	2494	607	56	1026
Scrapping and grading machine	J. W. Denton	448,415	Mar. 17	1885	{ 473 474 }	{ 54 54 }	{ 1495 1495 }
Scrapping implement	E. J. Metzger	462,445	Nov. 3	359	89	57	619
Screen:							
See Bolting-screen. Grain-separating screen.							
Carding-machine. Ore-screen.							
screen. Rotary screen.							
Dust-screen. Sand-screen.							
Extension-screen. Sliding screen.							
Folding screen. Window-screen.							
Gas-pipe screen.							
Screen	J. A. Bonghan	447,934	Mar. 10	1090	274	54	1331
Screen	F. F. Landis	446,687	Feb. 17	1925	480	54	905
Screen	A. A. Palm	444,252	Jan. 6	436	110	54	85
Screen	W. S. Pollitt	454,526	June 23	2027	525	55	1558
Screen	J. J. Kieder	448,370	Mar. 17	1812	457	54	1481
Screen	H. B. Sackett	461,250	Oct. 13	1097	200	57	219
Screen	W. E. Selleck	445,089	Jan. 20	1781	459	54	364
Screen for magic lanterns and photographers' use	E. H. Parsons and E. U. Frazer	454,005	June 9	1247	324	55	1394
Screening-machine	L. D. Eatar and L. D. Munshower	462,810	Nov. 10	940	245	57	742
Screw. Adjusting	J. H. Quick	451,071	Apr. 28	2209	546	55	453
Screw and nut. Feed	E. A. Walker	454,959	June 30	2767	705	55	1702
Screw-heading machine	A. M. Southard and G. W. Smith	450,262	Apr. 14	924	229	55	184
Screw, bolt, and nut	C. A. Higbee	447,775	Mar. 10	816	202	54	1279
Screw-case	H. Westphal	465,621	Dec. 22	2594	659	57	1656
Screw-coupling	C. A. Folly	453,555	June 2	559	150	55	1259
Screw-cutting device	H. Westbrook and R. Burns	451,790	May 5	530	130	55	679
Screw-cutting die	C. A. Johnson	464,568	Dec. 8	861	212	57	1308
Screw-cutting-die stock	F. S. Patton	456,660	July 28	2174	576	56	441
Screw-cutting machine	H. E. Coy	448,638	Mar. 24	2243	563	54	1570
Screw-cutting machine	G. J. Forrey	459,277	Sept. 8	1144	{ 279 280 }	{ 56 56 }	{ 1295 1295 }
Screw-cutting machine	E. A. Stimson	464,532	Dec. 8	814	200	57	1299
Screw-cutting tool	W. Hutcheson	453,811	June 9	992	258	55	1344
Screw-driver	T. H. Buffington	466,220	Dec. 29	3552	909	57	1852
Screw-driver	W. A. Church	452,772	May 26	2147	538	55	1006
Screw-driver	E. Dawson	456,300	July 21	1582	418	56	319
Screw-driver	J. Q. Day	454,929	June 30	2721	694	55	1693
Screw-driver	H. L. Gillette	462,252	Nov. 3	48	12	57	561
Screw-driver	J. H. Lyon	464,574	Dec. 8	870	214	57	1310
Screw-driver	E. Rivett	453,211	June 2	47	13	55	1157
Screw-driver	J. H. Satterlee	452,617	May 19	1896	477	55	948
Screw-driver. Automatic	A. D. and H. E. Goodell	463,506	Nov. 17	2043	533	57	902
Screw-driver. Push	E. Brown	447,277	Feb. 24	2933	729	54	1108
Screw-driver. Reversible	J. Reid, Jr.	456,341	July 21	1644	435	56	331
Screw-eye	C. D. Rogers	464,465	Dec. 1	700	171	57	1268
Screw. Felly	H. K. Jones	446,741	Feb. 17	2008	500	54	922
Screw. Felly	H. K. Jones	448,347	Mar. 17	1782	450	54	1476
Screw-heads. Die for slotting	C. D. Rogers	452,064	May 12	992	{ 251 252 }	{ 55 55 }	{ 771 771 }
Screw. Jack	M. D. Kalbach	452,225	May 12	1262	318	55	821
Screw. Jack	N. D. Russell	459,769	Sept. 22	1944	490	56	1163
Screw-jack	H. W. Rohie	461,643	Oct. 20	1793	441	57	357
Screw-machine	C. M. Spencer	447,017	Feb. 24	2467	{ 614 615 }	{ 54 54 }	{ 1018 1018 }
Screw-machine. Automatic	W. W. Hastings	463,626	Nov. 24	2252	{ 593 594 }	{ 57 57 }	{ 1012 1012 }

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette	
				Spec.	Dr. gr.	Vol.	Page.
Screw-machine slotting attachment	A. H. Eddy	447,010	Feb. 24	2450	{ 610 611	54	1015
Screw-machines. Friction-clutch for	F. Curtis, Jr.	466,924	Dec. 29	3558	{ 910 911	57	1852
Screw-making machine	J. Hartness	457,967	Aug. 18	1710	{ 448 449 450	56	872
Screw-making machine	W. Hillman	462,553	Nov. 3	526	{ 128 129 684	57	651
Screw-making machine	G. A. Smith	456,913	July 28	2606	{ 685	56	519
Screw-press	J. E. Sheridan	457,225	Aug. 4	461	121	56	619
Screw protector. Set	H. B. Walmsley	447,742	Mar. 3	748	187	54	1260
Screw protector. Set	H. B. Walmsley	456,527	July 21	1955	515	56	389
Screw. Self-countersinking	W. N. Richards	465,101	Dec. 15	1742	441	57	1486
Screw. Set	L. A. Geisinger	465,175	Dec. 15	1863	473	57	1508
Screw. Temper	L. D. Mason	446,994	Feb. 24	2427	604	54	1011
Screw-thread-cutting apparatus	H. H. and H. H. Forsyth, Jr.	452,839	May 26	2248	564	55	1036
Screw-thread-cutting machine	E. and H. L. Ament	454,197	June 16	1525	{ 400 401	55	1455
Screw-thread-cutting machine	J. Fox	451,169	Apr. 28	2364	587	55	484
Screw-threaded bolts or screws. Method of and means for producing	A. Densmore	463,445	Nov. 17	1950	{ 508 509	57	945
Screw-threaded rolled forgings. Method of and apparatus for making	G. F. Simonds	446,932	Feb. 24	2334	519	54	993
Screw-threads. Die for rolling	C. D. Rogers	461,620	Oct. 20	1755	{ 432 433	57	350
Screw-threads on tubular articles. Method of and means for forming	A. Densmore	463,444	Nov. 17	1949	508	57	945
Screw. Wood	G. T. Chapman	449,037	Mar. 24	2859	727	54	1689
Screw. Wood	E. Nicholson	453,563	June 2	600	153	55	1261
Screw. Wood	C. D. Rogers	449,887	Apr. 7	362	92	55	72
Screw-wrench	J. Ryan	447,163	Feb. 24	2739	678	54	1068
Screws. Die for swaging the threads of gimlet-pointed	H. K. Jones	444,554	Jan. 13	906	236	54	188
Screws, knobs, washers, &c. Machine for making	G. Wüst-Guyer	459,558	Sept. 15	1601	{ 401 402 403	56	1391
Screws. Making	J. Stehli	455,931	July 14	1017	{ 265 266	56	203
Screws. Manufacture of	H. Nettlefold and J. Sheldon	452,548	May 19	1793	451	55	928
Scriber	W. Potter	450,892	Apr. 21	1937	475	55	391
Scrubbing-machine	J. Ziv	454,633	June 23	2217	571	55	1591
Scuttle lock and operator	E. A. Cole	458,730	Sept. 1	278	67	56	1119
Scythe-fastener	L. R. Edwards	451,222	Apr. 28	2457	{ 607 608	55	500
Seal	C. D. Ives, T. H. Simmons, and R. G. Baldwin	452,650	May 12	956	244	55	766
Seal	A. J. Phelps	461,523	Oct. 20	1606	393	57	323
Seal lock	C. E. Davis. (Reissue)	11,161	May 5	699	176	55	711
Seal lock	G. F. Greene	455,040	June 30	2923	744	55	1733
Seal lock	O. P. Hix	447,489	Mar. 3	375	92	54	1189
Seal lock	J. M. Hopkins and H. Tesseyman	455,686	July 7	625	165	56	121
Seal lock	E. Meise	445,597	Feb. 3	120	30	54	535
Seal lock	S. T. Nickerson	465,723	Dec. 22	2735	697	57	1684
Seal lock	J. V. Reed and E. Frazer	456,596	July 28	2062	546	56	418
Seal lock	R. M. Sully	444,322	Jan. 6	534	139	54	107
Seal lock	W. Walker	448,700	Mar. 24	2341	587	54	1590
Seal making machine. Clay	A. G. Burton	444,232	Jan. 6	469	{ 101 102	54	81
Sealing packages	C. C. Conroy	455,962	July 14	1067	280	56	211
Sealing. Prepared surface of articles for	T. M. Biddle	462,855	Nov. 10	1014	261	57	756
Sealing-ring	J. H. Green	455,397	July 7	159	40	56	34
Seamer. Metal-roofing	I. Bales	449,725	Apr. 7	125	32	55	26
Seamer. Roofing	R. R. Delaney	455,177	June 30	3170	803	55	1780
Seamer. Roofing	O. P. Talley	454,303	June 16	1679	440	55	1485
Seaming-machine	F. P. de Jonge	451,489	May 5	69	17	55	592
Seaming machine. Die	F. A. Walsh	445,739	Feb. 3	367	95	54	585
Seaming machine. Die	F. A. Walsh	445,740	Feb. 3	368	95	54	585
Seaming roofing-plates. Device for	W. F. Weitmyer	465,906	Dec. 29	3037	{ 777 778	57	1753
Seaming the flanged edges of metallic elbows. Machine for	D. A. Ritchie	463,408	Nov. 17	1902	497	57	935
Seaming-tongs. Roofer's	E. S. Meals	444,498	Jan. 13	820	214	54	172
Seaming tubes. Machine for	A. D. Prentice	456,059	July 14	1204	317	56	237
Search-light	W. E. Hadlock	456,408	July 21	1757	464	56	352
Search-light. Electric	B. B. Ward	449,719	Apr. 7	114	29, 30	55	24
Seat:							
See Bicycle-seat.	Spring-seat.						
Car-seat.	Tooth-seat.						
Carriage-seat.	Vehicle-seat.						
Chair-seat.	Vehicle jump-seat.						
Desk-seat.	Velocipede-seat.						
Locomotive-cab seat.	Water-closet seat.						
Shifting seat.							
Seat-spring for cushioned seats	W. Westermann	447,142	Feb. 24	2704	670	54	1062
Secondary battery	T. H. Aldrich	451,445	May 5	1	1	55	579
Secondary battery	C. F. Brush	445,422	Jan. 27	2293	595	54	474
Secondary battery	H. T. Cheswright	445,542	Feb. 3	21	6	54	515
Secondary battery	S. C. C. Currie	447,279	Feb. 24	2935	730	54	1108
Secondary battery	S. C. C. Currie	453,995	June 9	1235	321	55	1392
Secondary battery	N. H. Edgerton	462,693	Nov. 10	751	197	57	704
Secondary battery	J. Emmner, Jr.	451,921	May 12	741	187	55	726
Secondary battery	W. W. Griscom	453,695	June 9	818	208	55	341

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Secondary battery	A. M. P. Laurent-Cély and I. A. Timmis.	446,527	Feb. 17	1685	{ 412 413 }	54	859
Secondary battery	O. Lugo	458,424	Aug. 25	2452	596	56	1019
Secondary battery	O. Lugo	458,425	Aug. 25	2453	597	56	1019
Secondary battery	J. H. Palmer	462,449	Nov. 3	365	90, 91	57	620
Secondary battery	H. Pieper	456,843	July 28	2484	653	56	496
Secondary battery	I. L. Roberts	464,665	Dec. 8	1015	254	57	1339
Secondary battery	J. S. Sellon	454,187	June 16	1510	396	55	1452
Secondary battery	W. L. Silvey	459,535	Sept. 15	1562	390	56	1384
Secondary battery	D. Tommasi and C. Thoryc	454,091	June 16	1372	357	55	1425
Secondary battery	M. Waddell and J. B. Entz	461,858	Oct. 27	2138	527	57	431
Secondary battery	G. A. Washburn	451,540	May 5	143	36	55	607
Secondary battery	G. A. Washburn	451,541	May 5	145	36	55	607
Seconds-hand. Stem-setting	G. E. Hunter and F. H. Corthell	455,285	June 30	3350	846	55	1815
Sectional boiler	J. H. Mills	449,379	Mar. 31	3434	{ 865 866 }	54	1802
Seed-delinting apparatus. Cotton	J. Hollingsworth and O. Darwin	458,833	Sept. 1	443	106	56	1149
Seed-delinting machine. Cotton	J. J. O'Brien	465,800	Dec. 22	2850	730	57	1708
Seed-delinting machines. Feeding mechanism for cotton	J. Waldron and C. H. Sprout	458,435	Aug. 25	2469	601	56	1022
Seed-drill	N. J. Johnson	450,513	Apr. 14	1317	323	55	259
Seed-drill	J. M. King	448,349	Mar. 17	1784	451	54	1476
Seed huller. Cotton	J. J. Faulkner	456,506	July 21	1914	506	56	382
Seed linter. Cotton	J. J. Faulkner	462,634	Nov. 3	650	154	57	676
Seed-linting machine. Cotton	J. J. Faulkner	457,263	Aug. 4	531	139	56	631
Seed-linting machine. Cotton	J. J. Faulkner	462,632	Nov. 3	647	{ 163 164 }	57	676
Seed-linting machine. Cotton	J. J. Faulkner	462,633	Nov. 3	649	164	57	676
Seed-linting machine. Cotton	J. J. Faulkner	462,635	Nov. 3	651	165	57	677
Seed-linting machine. Cotton	F. C. Mann and B. Andrews	457,969	Aug. 18	1723	452	56	874
Seed. Machine for delinting cotton	J. J. Faulkner	454,465	June 23	1934	504	55	1541
Seed. Machine for delinting cotton	J. M. Gardner	451,868	May 5	637	{ 159 160 }	55	700
Seed. Machine for removing lint from cotton	O. T. Bugg	446,321	Feb. 10	1354	330	54	780
Seed recleaner. Clover	J. Wely and A. A. Leach	447,804	Mar. 10	872	217	54	1290
Seed-separator. Flax	D. E. Loger	458,469	Aug. 25	2516	612	56	1031
Seed-sheller	C. A. Lees and S. W. Lester	444,838	Jan. 20	1351	350	54	281
Seeds and spicos. Commuting	H. R. Pomeroy	444,847	Jan. 20	1364	353	54	283
Seeds. Composition for treating	J. Johann	449,741	Apr. 7	149		55	30
Seeder	J. V. Peacock	453,732	June 9	871	236	55	1320
Seeder	A. Smith	452,623	May 19	1909	440	55	950
Seeder and cultivator	A. J. Bates	460,079	Sept. 22	2416	604	56	1553
Seeder and cultivator	J. W. Cahill	465,072	Dec. 15	1675	{ 426 427 }	57	1473
Seeder and cultivator	J. L. Parrott	460,399	Sept. 29	2913	728	56	1655
Seeder and harrow. Combined	W. C. Burrell	447,864	Mar. 10	972	244	54	1309
Seeder and planter	H. McDaniel	459,762	Sept. 22	1934	487	56	1461
Seeder. Apple and osage	H. C. Graves	461,976	Oct. 27	2334	{ 578 579 }	57	469
Seeding-machine	D. M. Baldwin	444,573	Jan. 13	939	{ 243 244 }	54	194
Seeding-machine	R. D. Berry	454,418	June 16	1865	487	55	1519
Seeding-machine	H. L. Brown	463,479	Nov. 17	2000	523	57	955
Seeding-machine	S. C. Cobb	454,457	June 23	1919	501	55	1538
Seeding-machine	S. C. Cobb	454,458	June 23	1921	501	55	1539
Seeding-machine	I. A. Cowie	461,011	Oct. 13	726	187	57	148
Seeding-machine	J. L. Harrell	461,476	Oct. 20	1529	374	57	308
Seeding-machine	J. Noxon	451,067	Apr. 28	2204	545	55	452
Seeding-machine	W. J. Pirkle	461,708	Oct. 20	1900	470	57	377
Seeding-machine	J. F. Platt	454,918	June 30	2690	689	55	1688
Seeding-machine. Broadcast	V. Swanfeldt	454,158	June 16	1468	386	55	1444
Seeding-machine. Grain	R. Galloway	450,787	Apr. 21	1761	428	55	359
Seeding-machine. Grass	J. L. Rhodes	452,803	May 26	2195	551	55	1016
Seeding-machine wheel	J. W. Rhodes	459,979	Sept. 22	2265	568	56	1524
Seeding-machines. Fertilizer attachment for	A. F. Brown	455,469	July 7	268	68	56	54
Seesaw	C. F. Spencer	451,583	May 5	208	50	55	619
Seines. Treating fish	D. F. and W. E. Overton	453,819	June 9	1003		55	1346
Selector and recorder. Mechanical	S. L. Wiegand	461,970	Oct. 27	2324	{ 576 577 }	57	468
Self-acting lubricator	J. Mense	455,570	July 7	439	116	56	85
Self-closing can	S. O. Myers	444,301	Jan. 6	502	131	54	100
Self-inflating mat or cushion for sliding-poles	E. L. Perry	452,234	May 12	1273	321	55	823
Self-soffing trap	L. H. Dowell	455,313	July 7	24	6	56	7
Self-waiting table	E. E. Howell	464,073	Dec. 1	103	26	57	1157
Self-waiting table	L. Stevenson	463,004	Nov. 10	1240	323	57	800
Selling device. Automatic	F. O. Claffin	453,561	June 2	596	152	55	1260
Selvaige of cotton pile goods	R. Middleton and H. T. Jones	445,228	Jan. 27	2014	519	54	417
Semaphore. Electric	F. Stitzel and C. Weinedel	445,653	Feb. 3	216	{ 58 59 60 }	54	554
Semaphore-operating apparatus	N. J. Smith	446,479	Feb. 17	1608	{ 394 395 }	54	845
Semaphore-signal. Pneumatic	J. Wayland	447,988	Mar. 10	1185	301	54	1349
Semi-elliptic spring	E. Clift	463,342	Nov. 17	1789	468	57	913
Separable boat	J. Asyden	449,241	Mar. 31	3176	801	51	1757
Separating-machine	A. Heino	455,592	July 7	478	124	56	92
Separating-machine	A. Heino	465,574	Dec. 22	2518	642	57	1643
Separating-machine	O. M. Morse. (Reissne)	11,165	May 12	1471	{ 364 365 }	55	859
Separating-machine	O. M. Morse	452,580	May 19	1839	{ 461 462 }	55	937
Separating-machine	O. M. Morse	452,581	May 19	1842	463	55	937
Separating-machine	O. M. Morse	456,585	July 28	2046	{ 540 541 }	56	415

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Separating-machine.....	J. G. Mundy.....	465,582	Dec. 22	2531	{ 644 645 }	57	1645
Separator:							
See Boiler-separator.	Grain-separator.						
Centrifugal separator.	Grain and cockle separator.						
Coal-separator.	Liquid-separator.						
Coffee-separator.	Magnetic separator.						
Coin-separator.	Ore-separator.						
Dust-separator.	Seed-separator.						
Dust and flour separator.	Steam-separator.						
Egg-separator.	Stone-separator.						
Electro-magnetic separator.	Teeth-separator.						
Separator.....	E. S. Bennett.....	448,189	Mar. 10	1482	378	54	1409
Separator.....	J. H. Bisaner.....	448,198	Mar. 17	1510	385	54	1424
Separator.....	W. L. Card.....	448,472	Mar. 17	1970	{ 495 496 }	54	1511
Separator.....	A. Cook and W. L. Harvey.....	445,133	Jan. 20	1852	{ 479 480 }	54	377
Separator.....	G. L. Dale.....	451,918	May 12	739	{ 185 186 }	55	725
Separator.....	J. H. Driller.....	454,940	June 30	2740	698	55	1697
Separator.....	J. F. Keiper.....	463,514	Nov. 17	2044	536	57	965
Separator.....	F. H. Wheelan.....	448,394	Mar. 17	1854	466	54	1489
Separator and screen.....	J. Pollock.....	464,776	Dec. 8	1192	296	57	1370
Serrated bands. Hardening.....	E. and D. Sykes.....	452,858	May 26	2278	572	55	1031
Settee and bed. Combined.....	R. D. Cody.....	444,529	Jan. 13	864	{ 224 225 }	54	180
Sewage. Apparatus for treating.....	A. F. Black.....	450,094	Apr. 7	653	165	55	128
Sewage-treating apparatus.....	C. W. Chancellor.....	448,122	Mar. 10	1374	352	54	1388
Sewer construction.....	G. E. Waring, Jr.....	451,204	Apr. 28	2437	602	55	486
Sewer-gas indicator. Electrical.....	J. J. Lawler.....	465,278	Dec. 15	2024	517	57	1538
Sewer-inlet.....	N. F. and J. Q. Shunk.....	459,359	Sept. 8	1114	272	56	1289
Sewer man-hole.....	F. Walker.....	450,878	Apr. 21	1919	471	55	388
Sewer-pipe.....	H. W. Libbey.....	463,281	Nov. 17	1685	440	57	895
Sewer-pipe.....	H. W. Libbey.....	465,936	Dec. 29	3081	790	57	1761
Sewer-pipe and drain-tile machine.....	W. D. Sherman.....	462,597	Nov. 3	593	146	57	665
Sewer-pipe-clearing device.....	J. A. and M. Cole.....	460,350	Sept. 29	2847	709	56	1644
Sewer-pipe-making machine.....	T. C. Hargrave.....	450,583	Apr. 14	1401	{ 345 346 }	55	277
Sewer-trap.....	W. H. Carberry.....	464,240	Dec. 1	365	88, 89	57	1202
Sewer-trap.....	J. A. Coleman.....	459,440	Sept. 15	1413	354	56	1356
Sewer-trap.....	A. C. Drury.....	452,750	May 19	2116	532	55	991
Sewer-trap.....	C. C. Funk.....	444,747	Jan. 13	1305	312	54	244
Sewer-trap.....	C. L. Gage.....	461,955	Oct. 27	2308	572	57	464
Sewer-trap.....	J. R. Magee.....	458,589	Sept. 1	65	14	56	1078
Sewers. Catch-basin for.....	J. W. Hershberger.....	462,864	Nov. 10	1025	265	57	758
Sewerage system.....	J. C. McGowan.....	448,988	Mar. 24	2781	{ 703 704 }	54	1674
Sewing and beating out seams. Machine for.....	E. B. Allen.....	449,101	Mar. 31	2959	749	54	1717
Sewing and edging machine.....	J. C. Goodwin.....	450,793	Apr. 21	1773	{ 431 432 }	55	361
Sewing carpets. Apparatus for.....	F. Ames.....	454,404	June 16	1832	{ 479 480 }	55	1513
Sewing carpets. Apparatus for.....	F. Ames.....	464,211	Dec. 1	321	78, 79	57	1194
Sewing looped fabrics. Machine for.....	J. Soper.....	444,859	Jan. 20	1420	{ 368 369 }	54	223
Sewing looped fabrics. Trimming attachment for machines for.....	N. H. Bruce.....	456,012	July 14	1142	{ 299 300 }	56	225
Sewing-machine.....	J. T. Bowyer.....	454,708	June 23	2325	598	55	1613
Sewing-machine.....	F. Chase.....	445,924	Feb. 3	663	{ 162 163 }	54	642
Sewing-machine.....	F. Chase.....	445,925	Feb. 3	668	{ 163 164 }	51	643
Sewing-machine.....	W. L. Cheney.....	461,815	Oct. 27	2079	513	57	420
Sewing-machine.....	H. H. Cummings.....	447,008	Feb. 24	2446	{ 608 609 }	54	1015
Sewing-machine.....	C. Dancel.....	459,036	Sept. 8	767	{ 186 187 }	56	1223
Sewing-machine.....	W. F. Dial.....	446,830	Feb. 17	2143	533	51	951
Sewing-machine.....	P. Diehl.....	465,557	Dec. 22	2492	636	57	1638
Sewing-machine.....	A. S. Dimsmore.....	450,225	Apr. 14	857	215	55	172
Sewing-machine.....	F. Doucet.....	457,578	Aug. 11	1073	{ 274 275 }	56	742
Sewing-machine.....	L. C. Emerson.....	444,565	Jan. 13	927	241	54	192
Sewing-machine.....	H. H. Fefel.....	455,190	June 30	3185	807	55	1784
Sewing-machine.....	M. Gardner.....	447,306	Mar. 3	32	8, 9	54	1124
Sewing-machine.....	M. Gardner.....	447,307	Mar. 3	35	9, 10	54	1124
Sewing-machine.....	M. Gardner.....	447,402	Mar. 3	211	55, 56	54	1157
Sewing-machine.....	W. P. Greenlaw.....	458,363	Aug. 25	2352	{ 573 574 }	56	1000
Sewing-machine.....	H. C. Gros.....	453,472	June 2	467	{ 120 121 }	55	1237
Sewing-machine.....	A. Helwig.....	465,132	Dec. 15	1798	455	57	1495
Sewing-machine.....	D. Jones.....	449,539	Mar. 31	3690	927	51	1852
Sewing-machine.....	E. Kohler.....	449,818	Apr. 7	266	68, 69	55	53
Sewing-machine.....	M. Kramer.....	444,212	Jan. 6	376	93, 94	54	75
Sewing-machine.....	E. C. Lea.....	453,262	June 2	131	35	55	1173
Sewing-machine.....	A. M. Leslie.....	444,758	Jan. 13	1223	{ 317 318 }	54	248
Sewing-machine.....	A. M. Leslie.....	444,759	Jan. 13	1224	{ 318 319 }	54	248

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Sewing-machine.....	L. Muther.....	445,122	Jan. 20	1835	475	54	374
Sewing-machine.....	W. A. Neely.....	454,540	June 23	2052	531	55	1563
Sewing-machine.....	W. A. Neely.....	463,199	Nov. 17	1560	406	57	870
Sewing-machine.....	J. W. Ramsden and H. S. Ellis.....	465,887	Dec. 29	3009	768 769 770	57	1747
Sewing-machine.....	C. S. Reed.....	455,691	July 7	633	167	56	123
Sewing-machine.....	R. Todd.....	458,434	Aug. 25	2465	600 601	56	1021
Sewing-machine.....	J. Tripp.....	460,295	Sept. 29	2754	687	56	1626
Sewing-machine.....	J. Tripp.....	460,454	Sept. 29	2982	746	56	1669
Sewing-machine.....	F. T. Welton.....	465,547	Dec. 22	2476	631 632	57	1635
Sewing-machine.....	C. E. Wheeler.....	446,398	Feb. 10	1467	361	54	804
Sewing-machine.....	R. G. Woodward.....	465,743	Dec. 22	2774	708	57	1693
Sewing-machine.....	R. G. Woodward.....	466,264	Dec. 29	3619	926 927	57	1865
Sewing-machine attachment.....	A. B. McDowell.....	465,722	Dec. 22	2734	697	57	1684
Sewing-machine attachment-holder.....	H. C. Godrich and F. Henry.....	448,225	Mar. 17	1557	397 398	54	1432
Sewing-machine attachment-holder.....	J. R. Hebert.....	445,950	Feb. 3	706	172	54	651
Sewing-machine attachment-holder.....	A. Talbot and J. Matot.....	454,952	June 30	2759	703	55	1700
Sewing-machine attachment-holder.....	E. J. Toof.....	444,542	Jan. 13	884	229	54	184
Sewing-machine attachments. Drawer for.....	N. A. Hull.....	444,151	Jan. 6	282	68	54	58
Sewing-machine blinder.....	E. H. Craigie.....	416,843	Feb. 17	2164	538	54	955
Sewing-machine binding attachment.....	H. H. Barnard.....	454,250	June 16	1598	420	55	1469
Sewing-machine bobbin-case holder.....	H. S. Shaft.....	456,385	July 21	1725	456	56	346
Sewing machine. Book.....	F. R. Kahnes.....	460,582	Oct. 6	61	15 16 17	57	14
Sewing machine. Boot or shoe.....	A. Eppler, Jr.....	447,872	Mar. 10	985	246 247 248 249 250	54	1311
Sewing machine. Boot or shoe sole.....	W. A. Raymond.....	459,937	Sept. 22	2212	556	56	1515
Sewing machine. Broom.....	H. K. Crissey.....	457,850	Aug. 18	1510	393 394	56	834
Sewing-machine. Button-hole.....	A. Helwig.....	455,207	June 30	3212	815 816	55	1789
Sewing-machine. Button-hole.....	J. Q. A. Houghton.....	449,074	Mar. 24	2912	739	54	1699
Sewing-machine. Button-hole.....	J. Q. A. Houghton.....	449,075	Mar. 24	2913	739	54	1699
Sewing-machine. Button-hole.....	G. J. Nopper.....	461,387	Dec. 1	448	107 108	57	1220
Sewing-machine. Button-hole.....	R. Spahn.....	441,467	Jan. 13	763	199	54	160
Sewing-machine. Button-hole.....	H. J. Williams.....	448,397	Mar. 17	1857	467	54	1490
Sewing-machine button-hole attachment.....	L. T. Bulley.....	456,355	July 21	1666	439	56	335
Sewing-machine button-hole attachment.....	E. Fletcher.....	446,736	Feb. 17	2001	499	54	921
Sewing-machine button-hole attachment.....	J. H. Palmer.....	444,846	Jan. 20	1362	353	54	283
Sewing-machine cabinet.....	A. F. Gerald.....	446,581	Feb. 17	1761	434	54	874
Sewing-machine cabinet.....	N. A. Hull.....	457,968	Aug. 18	1721	451	56	873
Sewing-machine case.....	N. A. Hull.....	453,837	June 9	1024	267	55	1351
Sewing-machine cording attachment.....	F. M. Baker.....	445,361	Jan. 27	2204	571	54	456
Sewing-machine. Duplex-needle.....	F. O. Jerram.....	451,383	Apr. 28	2704	671	55	548
Sewing-machine embroidery attachment.....	T. S. Huntington.....	445,953	Feb. 3	710	173	54	652
Sewing-machine fan attachment.....	J. H. O'Neil.....	457,167	Aug. 4	357	91	56	601
Sewing-machine feeding device.....	W. H. Hanna.....	445,468	Jan. 27	2352	611	54	485
Sewing-machine feeding mechanism.....	P. Diehl.....	460,954	Oct. 13	645	166	57	133
Sewing-machine feeding mechanism.....	G. H. Dimond.....	466,273	Dec. 29	3635	930	57	1867
Sewing-machine feeding mechanism.....	M. Gardner.....	447,401	Mar. 3	208	54	55	1157
Sewing-machine feeding mechanism.....	C. M. Hine.....	454,043	June 16	1298	338	55	1411
Sewing-machine feeding mechanism.....	C. M. Hine.....	454,044	June 16	1300	339	55	1412
Sewing-machine feeding mechanism.....	W. A. Mack.....	447,351	Feb. 24	2887	717	54	1098
Sewing-machine feeding mechanism.....	M. H. Pearson.....	464,480	Dec. 1	725	177	57	1272
Sewing-machine feeding mechanism.....	T. C. Robinson and R. Stephenson.....	457,521	Aug. 11	983	251	56	723
Sewing-machine feeding mechanism.....	E. M. Staples and S. W. Houghton.....	459,350	Sept. 8	1261	370 371	56	1318
Sewing-machine feeding mechanism.....	W. J. Stewart.....	460,730	Oct. 6	317	78	57	62
Sewing-machine feeding mechanism.....	J. Tripp.....	460,294	Sept. 29	2754	686	56	1626
Sewing-machine feller and hemmer.....	A. Laubscher.....	461,581	Oct. 20	1691	414	57	339
Sewing-machine felling-guide.....	C. H. Priestner and C. Schütz.....	458,428	Aug. 25	2156	597	56	1020
Sewing-machine for stitching and cutting button-holes.....	F. W. Ostrom.....	463,295	Nov. 17	1709	446	57	899
Sewing-machine gear. Shield for.....	F. H. Dobeck.....	461,497	Oct. 20	1556	382	57	314
Sewing-machine. Glove.....	E. B. Rudolph.....	449,926	Apr. 7	422	105	55	82
Sewing-machine guide.....	B. Goldstein.....	465,059	Dec. 15	1661	423	57	1471
Sewing-machine guide.....	E. A. Sanber.....	459,890	Sept. 22	2140	538	56	1502
Sewing-machine guide.....	E. Wood.....	455,378	July 7	129	34	56	29
Sewing-machine guiding and tension device.....	S. G. Pilling.....	461,369	Oct. 13	1292	327	57	257
Sewing-machine hemmer.....	A. Johnston.....	455,535	July 7	379	97	56	75
Sewing-machine hemmer or feller.....	S. Laskey.....	457,785	Aug. 18	1100	363	56	814
Sewing-machine knutter.....	A. W. Cochran.....	453,730	June 9	868	296	55	1320
Sewing-machine lap-seam gage.....	C. Marks.....	456,198	July 21	1114	375	56	288
Sewing-machine looper.....	F. W. Bicks and H. S. Shaft.....	456,383	July 21	1723	456	56	345
Sewing-machine motor.....	E. L. Clark.....	446,964	Feb. 24	2383	593	54	1002
Sewing-machine motor.....	W. H. Clayton and R. P. Duncan.....	463,596	Nov. 17	2196	579	57	992
Sewing-machine motor.....	F. W. Kremen.....	463,521	Nov. 24	2108	631	57	1041
Sewing-machine needle.....	G. W. Lascel.....	459,913	Sept. 22	2100	548	56	1508
Sewing-machine needle.....	P. L. Montagne.....	460,148	Sept. 29	2530	630	56	1582
Sewing-machine needle-clamp.....	P. Diehl.....	464,013	Dec. 1	17	5	57	1139
Sewing-machine needle-guide.....	G. S. Hill.....	447,729	Mar. 3	723	181	54	1251
Sewing-machine. Overseaming.....	J. Horvath.....	452,864	May 26	2286	574	55	1033
Sewing-machine overseaming attachment.....	L. T. Bulley.....	456,354	July 21	1661	439	56	331

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Sewing-machine presser-foot	W. A. Mack	447,252	Feb. 24	2889	717	54	1099
Sewing-machine presser-foot	E. J. Toof	445,912	Feb. 3	648	159	54	639
Sewing-machine presser-foot	A. O. Very	451,347	Apr. 28	2654	637	55	539
Sewing-machine presser-foot	R. G. Woodward	446,575	Feb. 17	1753	431	54	873
Sewing-machine presser-foot-lifting mechanism	P. Diehl	460,955	Oct. 13	646	167	57	133
Sewing-machine quilting attachment	T. A. Hill	464,072	Dec. 1	102	26	57	1157
Sewing-machine quilting-frame	H. T. Davis	453,179	June 2	4	1	55	1149
Sewing-machine quilting-frame	J. E. Gibbs	454,520	June 23	2016	523	55	1556
Sewing-machine quilting-frame	J. M. Stukes	455,777	July 14	776	204	56	158
Sewing-machine quilting-frame	J. N. Touchstone	417,169	Feb. 21	2747	680	54	1070
Sewing-machine ruffler	W. A. Estaver	419,112	Mar. 31	2981	753	51	1722
Sewing-machine rufflers. Separator-plate for	M. G. Cook	457,254	Aug. 4	514	135	56	629
Sewing-machine ruffling attachment	E. J. Toof	450,647	Apr. 21	1561	375	55	321
Sewing-machine ruffling attachment	E. J. Toof	450,648	Apr. 21	1563	375	55	321
Sewing-machine ruffling attachment	E. J. Toof	450,649	Apr. 21	1564	375	55	321
Sewing machine. Shoe	M. C. and T. J. Denne	454,718	June 23	2341	{ 601 602 }	55	1616
Sewing machine. Shoe	W. Y. Ober	464,383	Dec. 1	584	144	57	1245
Sewing-machine shuttle	J. E. Bertrand	445,655	Feb. 3	224	61	54	556
Sewing-machine shuttle	J. E. Bertrand	445,656	Feb. 3	226	61	54	556
Sewing-machine shuttle	W. Duchemin	459,814	Sept. 22	2015	505	56	1477
Sewing-machine shuttle	W. H. Latham	419,682	Apr. 7	52	13	55	12
Sewing-machine shuttle	A. M. Leslie	414,756	Jan. 13	1219	317	54	247
Sewing-machine shuttle-actuating mechanism	W. A. Mack	447,253	Feb. 24	2890	712	54	1099
Sewing-machine shuttle-driving mechanism	T. Garfépy	456,619	July 28	2110	557	56	428
Sewing-machine shuttle-driving mechanism	A. Rontke	455,115	June 30	3058	777	55	1759
Sewing-machine shuttle-operating mechanism	J. Bolton	455,156	June 30	3126	794	55	1772
Sewing-machine shuttle-race	P. Diehl	465,362	Dec. 15	2175	557	57	1566
Sewing machine. Sole	H. F. Nason	455,870	July 14	924	{ 242 243 }	56	186
Sewing machine. Sole	G. A. Stiles	453,568	June 2	609	{ 155 156 }	55	1262
Sewing-machine spool-rack	E. Kolber	460,475	Sept. 29	3021	757	56	1676
Sewing-machine spool-rack	C. H. Lewy	447,528	Mar. 17	2053	514	54	1327
Sewing-machine spool-rack	L. Lewy	464,623	Dec. 8	944	233	57	1325
Sewing-machine spool-rack	E. Poole	444,766	Jan. 13	1237	321	54	250
Sewing-machine star-cutting attachment	A. L. Combs	456,692	July 28	2228	589	56	450
Sewing-machine take-up	H. H. Cummings	447,009	Feb. 24	2449	610	54	1015
Sewing-machine take-up mechanism	P. Diehl	462,398	Nov. 3	293	72	57	606
Sewing-machine thread-controlling device	M. H. Pearson	462,580	Nov. 3	560	{ 138 139 }	57	660
Sewing-machine thread-guard	J. H. Catten	447,280	Feb. 24	2937	730	54	1109
Sewing-machine thread-guiding device	E. M. Staples	452,395	May 19	1542	382	55	883
Sewing-machine thread-unwinder	M. V. Palmer	446,465	Feb. 17	1587	390	54	840
Sewing-machine thread-waxing device	J. E. Bertrand	445,657	Feb. 3	227	61	54	556
Sewing-machine throat-plate	W. A. Wheeler	452,419	May 26	2219	556	55	1020
Sewing-machine treadle mechanism	P. Diehl	464,277	Dec. 1	435	{ 103 104 }	57	1217
Sewing-machine trimmer	J. F. Murphy	453,129	June 2	406	105	55	1223
Sewing-machine trimming attachment	C. Timm	452,556	May 19	1805	454	55	930
Sewing-machine trimming attachment	J. L. Wright and H. Heine	462,333	Nov. 10	974	253	57	749
Sewing-machine trimming mechanism	W. J. Devall	454,010	June 9	1252	326	55	1396
Sewing-machine tuck-creaser	W. A. Estaver	458,360	Aug. 25	2345	572	56	969
Sewing-machine tuck-marker	E. J. Toof	448,693	Mar. 24	2331	585	54	1188
Sewing-machine tuck-marking attachment	J. R. Hebert	451,869	May 5	640	160	55	700
Sewing-machine tuck-marking device	J. E. Bradley	451,450	May 5	7	2	55	580
Sewing-machine welt-guide	C. Hatch, Jr.	460,776	Oct. 6	386	94	57	75
Sewing-machines. Bosom-plaiting attachment for	E. A. Sauber	449,345	Mar. 31	3445	867	54	1804
Sewing-machines. Button-sewing attachment for	P. Schoen	461,042	Dec. 1	51	14, 15	57	1147
Sewing-machines. Carpet clamp and stretcher for	F. Ames	464,212	Dec. 1	324	79	57	1195
Sewing-machines. Channel-cutting and flap-turning attachment for	A. E. Johnson and C. H. Porter	441,895	Jan. 20	1473	381	54	304
Sewing-machines. Device for controlling the shuttle thread of	H. Cook	454,610	June 23	2180	563	55	1585
Sewing-machines. Fan attachment for	L. Bercher	445,843	Feb. 3	548	133	54	618
Sewing-machines. Hand appliance for operating	J. L. Gardner	461,803	Oct. 20	2058	507	57	407
Sewing-machines. Leading-in device for overedge	F. B. Rudolph	449,927	Apr. 7	423	106	55	82
Sewing-machines. Puncturing implement for	J. E. Bertrand	441,419	Jan. 13	692	180	51	145
Sewing-machines. Rotary shuttle for	S. Keats	465,113	Dec. 15	1762	{ 445 446 }	57	1489
Sewing-machines. Seam-trimmer for	W. F. Dial	466,272	Dec. 29	3634	929	57	1867
Sewing-machines. Shuttle-actuating mechanism for duplex-needle	F. Kern	447,880	Mar. 10	998	252	54	1313
Sewing-machines. Spring-motor for	F. Briggs	455,468	July 7	266	67	56	53
Sewing-machines. Tension-releasing device for button-hole	G. S. Hill	457,463	Aug. 11	893	230	56	706
Sewing-machines. Thread-controlling mechanism for	J. E. Bertrand	452,159	May 12	1154	292	55	799
Sewing-machines. Thread-unwinding and tension device for	R. K. Clark	444,208	Jan. 6	371	92	54	74
Sewing-machines. Thread-unwinding device for	H. A. Bates	463,822	Nov. 24	2145	664	57	1067
Sewing-machines. Work-guiding attachment for overseaming	C. H. Foster	464,066	Dec. 1	90	23	57	1151
Sewing on buttons. Machine for	W. E. Bennett	465,333	Dec. 15	2111	{ 538 539 540 }	57	1555
Sewing on buttons. Machine for	W. E. Bennett	465,334	Dec. 15	2117	{ 541 542 543 }	57	1556
Sewing on buttons. Machine for	W. Mills	463,294	Nov. 17	1705	445	57	898
Sewing-stand	M. E. Harris	448,484	Mar. 17	1994	499	54	1515
Shade-adjuster	H. du Fresno	449,579	Mar. 31	3753	942	54	1863
Shade. Adjustable window	S. R. Smith	460,345	Sept. 29	2836	705	56	1642
Shade bracket. Window	L. Harnish	450,070	Apr. 7	619	156	55	120

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Shade fabrics. Machinery for handling printed	J. N. Wiggin and J. E. Rathbun	449,305	Mar. 31	3292	{ 832 833	{ 54	1777
Shade fabrics, &c. Mechanism for handling and conveying printed	J. N. Wiggin, C. A. Collord, and J. E. Rathbun	453,419	June 2	384	100	55	1219
Shade-fixture	M. Thiel	453,026	May 26	2558	647	55	1085
Shade-holder	E. Allday	454,675	June 23	2277	524	55	1602
Shade-holder	J. Lines	452,167	May 12	1177	297	55	804
Shade or globe holder	L. S. Hillyer	456,034	July 14	1173	308	56	231
Shade or globe holder	T. W. Pritchard	449,171	Mar. 31	3066	775	54	1737
Shade or map exhibitor. Window	J. W. Meyer	446,743	Feb. 17	2010	501	54	922
Shade-roller	J. A. Turner	447,705	Mar. 3	685	170	54	1248
Shade-roller bracket	G. W. Conklin	454,568	June 23	2091	539	55	1570
Shade-roller bracket	T. J. Dennis	446,640	Feb. 17	1850	450	54	891
Shade. Window	R. W. Jones and H. C. Weber	446,456	Feb. 17	1577	388	54	838
Shade. Window	L. Park	451,063	Apr. 28	2205	545	55	452
Shade. Window	E. Poole	464,989	Dec. 15	1536	387	57	1448
Shades. Extension-hanger for window	W. T. Estberg	458,447	Aug. 25	2486	605	56	1025
Shades to rollers. Attaching window	S. Hartshorn	444,832	Jan. 20	1338	347	54	279
Shaft attachment. Vehicle	J. B. Tichenor	464,838	Dec. 8	1279	321	57	1388
Shaft-bearing	E. A. Bredenber	456,299	July 21	1580	417	56	319
Shaft-bearings. Device for cooling	F. F. Landis	459,755	Sept. 22	1923	484	56	1460
Shaft-bearings. Electric alarm for	G. Hannah	449,411	Mar. 31	3493	878	54	1814
Shaft-bending machine	H. Cobb	452,339	May 12	1455	360	55	856
Shaft-collar	F. Simonson	448,087	Mar. 10	1329	340	54	1378
Shaft-coupling	G. L. Barnes	465,552	Dec. 22	2484	634	57	1636
Shaft-coupling	J. J. Hogan	459,909	Sept. 22	2175	547	56	1507
Shaft-coupling	W. L. Montague, Jr., and E. S. Lea	457,309	Aug. 4	436	114	56	614
Shaft-coupling	G. C. Pyle	446,123	Feb. 10	1000	246	54	714
Shaft-coupling	W. B. Turner	447,925	Mar. 10	1076	269	54	1329
Shaft. Crank	W. Hardwick	465,699	Dec. 22	2706	690	57	1679
Shaft. Expandable	W. R. Farnsworth	459,200	Sept. 8	1029	251	56	1272
Shaft. Flexible	J. S. Campbell	449,068	Mar. 24	2906	737	54	1698
Shaft. Flexible driving	J. S. Campbell	459,152	Sept. 8	956	{ 231 232	{ 56	1259
Shaft-hanger	E. W. Cooke	458,731	Sept. 1	279	67	56	1119
Shaft-hanger	A. C. Pessano	452,729	May 19	2076	522	55	983
Shaft-holder	C. H. Baker	463,091	Nov. 10	1377	356	57	827
Shaft holder. Vehicle	P. P. Sauble	474,621	June 23	2196	566	55	1587
Shaft-iron. Vehicle	T. H. Parry and D. S. Reel	458,978	Sept. 1	672	164	56	1186
Shaft locking device	F. G. McCohn	448,725	Mar. 24	2368	588	54	1568
Shaft-loop	I. Best and J. J. Sadler	463,774	Dec. 22	2818	722	57	1701
Shaft reversing mechanism. Counter	W. T. Carroll	444,814	Jan. 20	1305	339	54	272
Shaft-support and anti-rattler. Combined	C. Bishop and O. D. Miller	459,956	Sept. 22	2253	561	56	1518
Shaft-support for buggies	C. H. Baker	464,488	Dec. 8	742	181	57	1285
Shaft-support for vehicles	J. J. Barker	445,277	Jan. 27	2086	538	54	451
Shaft-support. Vehicle	H. F. Welch	453,728	June 9	865	224	55	1319
Shaft-turning machine	L. H. Brightman	456,882	July 24	2550	669	56	508
Shaft. Vehicle	G. E. Banfield	451,014	Apr. 28	2138	529	55	438
Shaft. Vehicle	J. W. Gornley	453,256	June 2	118	32	55	1170
Shaft. Vehicle	R. Gracey	448,611	Mar. 17	2192	548	54	1553
Shaft. Vehicle	J. A. Scarborough	463,923	Nov. 24	2723	706	57	1100
Shafts in the earth. Sinking	A. G. Carter	457,770	Aug. 18	1378	356	56	810
Shafts. Machine for applying and removing collars from	R. C. Geerner	464,316	Dec. 1	493	118	57	1228
Shafts. Mechanism for reversing	W. Fairchild	461,826	Oct. 27	2097	517	57	423
Shafts. Register and recorder for revolving	S. H. Pomeroy and A. M. White	460,886	Oct. 6	543	{ 136 137	{ 57	107
Shafts. Vehicle	C. S. Beebe	458,356	Aug. 25	2341	571	56	998
Shafts. Vehicle	J. R. Brought	465,690	Dec. 22	2699	687	57	1677
Shafts. Vehicle	H. H. Lockwood	450,167	Apr. 14	765	194	55	155
Shafting. Speed-indicator for	S. E. Nutting	465,047	Dec. 15	1438	417	57	1467
Shaftings. Portable box for	E. and H. Sawyer	457,843	Aug. 18	1497	390	56	832
Shaking-screen support	W. D. Gray	454,130	June 16	1423	373	55	1435
Shaking-screen support	W. D. Gray	454,131	June 16	1424	373	55	1435
Shaking-screen support	W. D. Gray	454,132	June 16	1425	373	55	1435
Shank-stiffeners. Machine for cutting and molding	J. M. Watson	458,027	Aug. 18	1807	{ 471 472	{ 56	889
Shaping-machine	W. R. Fox	459,629	Sept. 15	1728	{ 433 434	{ 56	1414
Shaping-machine	R. D. Woodford and G. C. Raymond	445,617	Feb. 3	155	41	54	541
Shaping-press	W. S. Stapley	464,736	Dec. 8	1132	{ 280 281	{ 57	1359
Shaping-press	W. S. Stapley	464,737	Dec. 8	1135	281	57	1360
Shaving and sawdust conveyer	W. Ross	464,186	Dec. 1	272	67	57	1187
Shaving-cup	E. Berninghaus	453,538	June 2	561	144	55	1254
Shawl-strap	A. J. Hoyt	454,944	June 30	2745	699	55	1698
Sheaf-carrier	J. W. Latimer	452,380	May 19	1515	{ 375 376	{ 55	878
Sheaf-carrier	J. Macphail	447,468	Mar. 3	339	85	54	1181
Sheaf-gatherer	O. P. and M. T. Brinker	450,136	Apr. 14	724	{ 181 182	{ 55	147
Shears:							
See Animal-shears. Metal-shears.							
Billet-shears. Sheep-shears.							
Clipping-shears. Squaring-shears.							
Cutting-shears. Wire-shears.							
Fruit-clipping shears.							
Shears	H. Aiken	448,192	Mar. 17	1503	383	54	1423
Shears	G. W. Baker	444,970	Jan. 20	1610	412	54	330
Shears	T. F. Calahan	452,260	May 12	1318	330	55	832
Shears	C. W. Hansen	460,704	Oct. 6	283	68	57	55
Shears	C. W. Hansen	460,705	Oct. 6	284	69	57	55
Shears	H. C. Heinisch	454,735	June 23	2364	607	55	1621
Shears	E. Krusius	444,983	Jan. 20	1629	418	54	334

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Shears	J. Lachanne and J. Pasteyer	445,700	Feb. 3	306	81	54	573
Shears	C. H. McKee	452,716	May 19	2060	518	55	981
Shears	R. Scheewe	453,609	June 9	773	{ 199 200 }	55	1302
Shears	M. L. Tolbert	450,877	Apr. 21	1918	471	55	388
Shears, &c. Apparatus for polishing	H. W. Patterson and W. H. Ryan	464,584	Dec. 8	883	218	57	1313
Shears-sharpener	S. Smith	458,004	Aug. 18	1778	464	56	884
Sheave	T. O'Neill	445,818	Feb. 3	513	123	54	612
Shed	D. S. Satterlee and H. Kemmerer	451,775	May 5	509	125	55	675
Sheep-shears	J. W. Strother	448,557	Mar. 17	2090	524	54	1535
Sheep-shears, horse-clippers, and similar instruments. Holder for cutters and combs for Sheet-collecting mechanism	F. Y. Wolseley	448,286	Mar. 17	1679	424	54	1455
Sheet-folding machine	S. D. Tucker	465,004	Dec. 22	2565	653	57	1651
Sheet-metal. Apparatus for scaling annealed	M. A. Condert	451,176	Apr. 28	2371	50	55	486
Sheet-metal articles. Die for making	G. E. Reed	456,340	July 21	1643	434	56	331
Sheet-metal articles. Means for ornamenting	J. R. Paddock	461,042	Oct. 13	772	198	57	156
Sheet-metal box	B. M. A'bell	444,413	Jan. 13	683	179	54	143
Sheet-metal cabinet	W. H. Atkinson	459,697	Sept. 15	1825	458	56	1434
Sheet-metal can	D. Block	445,388	Jan. 27	2237	500	54	462
Sheet-metal can	F. A. Assmann	451,355	Apr. 28	2669	661	55	542
Sheet-metal can	B. Norton	460,216	Sept. 29	2629	656	56	1602
Sheet-metal can	W. P. Quentell	454,561	June 23	2080	537	55	1568
Sheet-metal can	F. H. Palmer	464,385	Dec. 1	588	145	57	1246
Sheet-metal can	F. Reiset and G. A. Waerber	457,456	Aug. 11	881	228	56	704
Sheet-metal-cutting machine	C. Willis	446,241	Feb. 10	1230	{ 300 301 }	54	755
Sheet metal. Die for forming articles from	F. A. Wright and I. Yeamans	452,558	May 19	1807	454	55	931
Sheet metal. Die for shaping	W. A. Turner	451,203	Apr. 28	2435	602	55	496
Sheet metal. Drawing	J. W. Bodge	460,550	Oct. 6	5	2	57	3
Sheet-metal-drawing die	J. W. Bodge	460,551	Oct. 6	7	2	57	4
Sheet-metal drawing die	E. Norton	460,594	Oct. 6	77	21	57	17
Sheet-metal-drawing press	J. S. Detrick	462,628	Nov. 3	640	{ 161 162 }	57	674
Sheet-metal-edging machine	J. R. Spangler	448,380	Mar. 17	1828	461	54	1484
Sheet-metal elbow or shoe	W. J. Gordon	455,910	July 14	985	257	56	197
Sheet-metal-flanging machine	J. A. Kutz	449,624	Mar. 31	3848	963	54	1881
Sheet-metal-folding machine	C. R. Peaslee	445,589	Feb. 3	113	28	54	533
Sheet metal for ceilings, &c. Decorating	E. Pittmann	446,191	Feb. 10	1123	51	57	734
Sheet-metal-grooving machine	W. A. Lotspeich	463,287	Nov. 17	1692	442	57	895
Sheet metal, &c. Machine for enameling	H. Claus	465,461	Dec. 22	2319	{ 595 596 }	57	1665
Sheet metal, &c. Machine for powdering	H. Claus	465,815	Dec. 22	2876	736	57	1713
Sheet metal. Machine for trimming and compressing	G. D. Herboldshimer	447,515	Mar. 3	410	100	54	1195
Sheet-metal molding and embossing machine	J. W. Yates	464,410	Dec. 1	625	154	57	1252
Sheet-metal or other vessels. Attaching handles and covers to	G. W. Niedringhaus and C. Geiss	463,126	Nov. 10	1447	374	57	841
Sheet-metal panels. Ornamenting	B. W. Peterson	453,564	June 2	601	133	55	1261
Sheet-metal pipe	J. C. Bayles	455,579	July 7	387	100	56	76
Sheet-metal pipe	J. M. Davidson and W. H. Flender	450,142	Apr. 14	731	183	55	149
Sheet-metal plates. Apparatus for cleaning	S. Y. Buckman	451,263	Apr. 28	2532	624	55	516
Sheet-metal plates. Apparatus for coating	S. Y. Buckman	451,262	Apr. 28	2530	{ 623 624 }	55	515
Sheet-metal posts. Machine for making tubular	F. P. Rosback	463,201	Nov. 17	1563	{ 407 408 }	57	871
Sheet-metal stamping and perforating machine	W. A. Turner	445,603	Feb. 3	129	34	54	536
Sheet-metal-stamping apparatus	D. Stone	444,861	Jan. 20	1424	370	54	294
Sheet metal. Shears for cutting	H. L. Edge	464,652	Dec. 8	992	247	57	1334
Sheet-metal-shaping machine	W. A. Turner	463,345	Nov. 17	1793	469	57	914
Sheet-metal vessel	F. Haberman	463,041	Nov. 10	1297	336	57	811
Sheet-metal vessel	W. C. McIntire	451,410	Apr. 28	2749	680	55	557
Sheet-metal vessel or pot	M. C. Chambers	445,439	Jan. 27	2313	600	54	478
Sheet-metal vessels. Manufacture of	J. R. Paddock	461,041	Oct. 13	770	197	57	156
Sheets of material. Mechanism for separating	A. Weidenbusch	450,854	Apr. 21	1881	460	55	381
Shelf. Book	L. Stockstrom	448,091	Mar. 10	1334	341	54	1379
Shelf-bracket, &c. Combined	M. Heffernan	448,919	Mar. 24	2682	675	54	1655
Shelf-fastening	J. W. Hine	445,951	Feb. 3	707	172	54	651
Shelf. Flower-pot	J. Goebel and T. Griffin	461,078	Oct. 13	824	212	57	165
Shelf. Pastry	M. S. C. Hartmann	460,748	Oct. 6	347	85	57	68
Shelf system for stores. Overhanging transparent	A. Rehberger	464,344	Dec. 1	531	{ 129 130 }	57	1235
Shelving	J. L. Daniels	454,259	June 16	1611	423	55	1472
Shelving. Adjustable	J. Gottfried	450,289	Apr. 14	961	239	55	191
Shelving. Adjustable	B. F. Roberts	446,472	Feb. 17	1597	392	54	842
Shelving. Knockdown	H. A. J. Rieckert	453,504	June 2	515	133	55	1245
Shelving. Portable	P. Rink	451,293	June 16	1664	437	55	1482
Shelving. Skeleton	S. W. and A. L. Pope	464,723	Dec. 8	1115	{ 276 277 }	57	1356
Shell	C. T. Cayley and R. S. Courtman	447,229	Feb. 24	2853	708	54	1091
Shell. Explosive	H. P. Merriam	444,536	Jan. 13	875	{ 227 228 }	54	182
Shell for high explosives	J. G. Justin	464,569	Dec. 8	863	212	57	1309
Shell for high explosives	H. P. Merriam	444,537	Jan. 13	877	222	54	183
Shells. Cutting	R. A. Hadfield	455,816	July 14	858	225	56	173
Shells. Manufacturing	R. A. Hadfield	458,165	Aug. 25	2017	523	56	938
Sheller: See Corn-sheller. Seed-sheller. Pea-sheller.							
Shifting seat	A. N. Parry and H. E. Morrill	462,101	Oct. 27	2519	675	57	505
Shingle	H. Bornmann	455,272	June 30	342	838	55	1807
Shingle	R. P. Taylor	451,783	May 5	519	128	55	677
Shingle and picket sawing machine	J. B. Nolin and M. G. Young	446,534	Feb. 17	1697	416	54	862
Shingle-jointing machine	W. J. Barringer	453,365	June 2	287	76	55	1201
Shingle laying and nailing machine	M. A. Dees	463,106	Nov. 10	1407	{ 364 365 }	57	834

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Shingle-machine	J. L. Dickinson	450,996	Apr. 21	2103	519	55	423
Shingle-machine	O. Melancon	458,775	Sept. 1	342	82.83	56	1131
Shingle, Metallic	A. Bickelhaupt	458,152	Aug. 25	1993	516	56	933
Shingle, Metallic	F. L. Heller	453,743	June 9	887	231	55	1321
Shingle, Metallic	A. A. Smyth	453,707	June 9	842	215	55	1314
Shingle, Metallic	J. O. Thorn	466,198	Dec. 29	3516	900	57	1845
Shingle or shake machine	C. W. Babcock	445,742	Feb. 3	372	96	54	586
Shingle-painting machine	C. Cuno	444,902	Jan. 20	1484	{ 383 384	54	306
Shingle planing and sizing machine	E. H. Tromanhauser	465,005	Dec. 15	1570	{ 399 400	57	1455
Shingle-roofing	A. J. Loomis	465,064	Dec. 15	1668	424	57	1472
Shingle-sawing machine	J. L. Dickinson	450,995	Apr. 21	2102	{ 518 519	55	423
Shingle-sawing machine	W. J. Perkins	463,234	Nov. 17	1610	420	57	880
Shingles. Apparatus for making silica-coated or other	H. Bormann	455,271	June 30	3307	{ 837 838	55	1807
Shingles. Attachment for shingle-machines for edging	T. O. Wilson	459,031	Sept. 8	761	185	56	1221
Shingles. Coating	N. B. Holway	448,343	Mar. 17	1777	449	54	1475
Shingles or other flat articles. Device for coloring	J. D. Horton and F. S. Lee	454,356	June 16	1759	458	55	1499
Shingling-bracket	W. W. Clarkson	451,807	May 5	532	136	55	64
Ship	D. Bruce, Jr.	450,350	Apr. 14	1067	262	55	211
Ship-of-war	C. Hemje	458,340	Aug. 25	2316	566	56	994
Ship's boat-disengaging gear	H. J. Simpson	463,957	Nov. 24	2767	{ 717 718	57	1109
Ship's boats. Deck-support for	C. J. Van Shuys and C. Steffelaar, Jzn.	455,137	June 30	3089	766	55	1765
Ships' bottoms, &c. Compound for preserving	B. Hooker	459,751	Sept. 22	1918		56	1459
Ship's course-recorder	A. Wrigley and J. Hope	465,308	Dec. 15	2070	{ 529 530	57	1547
Ship's fender	T. Raftery	448,074	Mar. 10	1309	335	54	1375
Ship's rigging	H. Follett	449,472	Mar. 31	3598	906	54	1834
Ships. Rigging-tackle for	J. C. B. Jarvis	465,857	Dec. 29	2952	754	57	1736
Ship's side light	T. Andreasen	454,198	June 16	1528	{ 401 402	55	1455
Ship's table	W. A. Hallett	453,716	June 9	854	220	55	1317
Ship's ventilator	T. Udey	461,694	Oct. 20	1876	464	57	373
Shipper	J. R. Balsley	465,123	Dec. 15	1784	450	57	1493
Shipping and storage box	C. P. Moore and F. M. Wolf	452,232	May 12	1271	320	55	823
Shipping-can	W. M. Brown	444,659	Jan. 13	1054	274	54	216
Shipping-can	W. M. Brown	444,660	Jan. 13	1055	{ 274 275	54	217
Shipping-can	W. M. Brown	444,669	Jan. 13	1108	226	54	227
Shipping case	E. M. Thompson	450,435	Apr. 14	1204	294	55	236
Shirt	G. Bengier	448,812	Mar. 24	2519	631	54	1623
Shirt	G. D. Eighmie	452,178	May 12	1195	302	55	807
Shirt	G. D. Eighmie	452,180	May 12	1196	302	55	807
Shirt, &c.	M. H. Ellenbogen	457,773	Aug. 18	1381	357	56	810
Shirt	S. L. Hyman	448,042	Mar. 10	1269	323	54	1365
Shirt	H. W. Messer	456,999	Aug. 4	108	27	56	554
Shirt	S. Miller	444,525	Jan. 13	857	223	54	179
Shirt	M. Schapiro	466,108	Dec. 29	3376	862	57	1818
Shirt	W. Tilden	454,674	June 23	2276	524	55	1602
Shirt and drawers. Combined	S. H. Halstead	447,403	Mar. 3	224	58	54	1160
Shirt and necktie. Combined	S. Broom	458,266	Aug. 25	2193	535	56	970
Shirt-exhibitor	J. W. Morrison	463,842	Nov. 24	2575	671	57	1073
Shirt-sleeve	G. D. Eighmie	452,179	May 12	1196	302	55	807
Shirt-starching machine	W. S. Herndon and L. C. Buckland	448,715	Mar. 24	2372	593	54	1585
Shock-compressor	J. K. Miller	447,619	Mar. 3	589	141	54	1225
Shock-compressor	J. C. Vail	444,787	Jan. 13	1262	327	54	255
Shoe	A. Barrows	460,770	Oct. 6	373	92	57	73
Shoe	G. Bryant	462,468	Nov. 3	398	97	57	626
Shoe	F. H. Flagg	463,734	Nov. 24	2424	635	57	1044
Shoe	J. Heckel	459,722	Sept. 15	1871	470	56	1443
Shoe	C. A. Merrill and F. Stowe	444,888	Jan. 20	1465	379	54	303
Shoe	J. W. Packard	454,376	June 16	1795	468	55	1505
Shoe	G. Schultz	449,500	Mar. 31	3635	915	54	1842
Shoe	G. I. Shepard	449,389	Mar. 31	3452	869	54	1806
Shoe	F. D. Smith	450,200	Apr. 14	817	205	55	165
Shoe	V. Straub	457,408	Aug. 11	808	208	56	691
Shoe-blackening machine	F. G. Norton	463,164	Nov. 17	1509	{ 391 392 393	57	860
Shoe-bottom fillings. Forming	S. H. Howland	458,421	Aug. 25	2446	595	56	1018
Shoe-clasp	J. J. Unbehend	450,593	Apr. 14	1426	351	55	280
Shoe-counter machine	A. Bredenbergh	464,449	Dec. 1	676	{ 165 166	57	1263
Shoe-expander	G. E. Hadlund	446,063	Feb. 10	905	220	54	606
Shoe-fastener	A. S. French	444,824	Jan. 20	1324	343	54	276
Shoe-fastening	J. C. Chapman	465,753	Dec. 22	2787	712	57	1605
Shoe-fastening	J. Dessoit	459,270	Sept. 8	1131	277	56	1293
Shoe-fastening	J. Dickson, Jr.	460,743	Oct. 6	339	83	57	67
Shoe-fastening	F. Jenner	446,779	Feb. 17	2058	513	54	933
Shoe-fastening	T. C. Oakman	462,364	Nov. 3	236	58	57	595
Shoe-fastening	H. S. Pullman	452,851	May 26	2267	569	55	1020
Shoe-fastening	P. A. Raymond	449,273	Mar. 31	3226	815	54	1767
Shoe-fastening	G. S. Webber	450,205	Apr. 14	823	206	55	166
Shoe-fastening	G. A. Weld	452,403	May 19	1563	388	55	887
Shoe for deformed feet	L. D. Harding	453,175	June 2	471	122	55	1237
Shoe holder and detacher	J. Donauer	459,640	Sept. 15	1805	453	56	1430
Shoe-horn	K. M. Tata	460,045	Sept. 22	2365	591	56	1543
Shoe-horn	E. Wolf	455,043	June 30	3002	763	55	1749
Shoe horn and jack	M. Gysin	457,115	Aug. 4	279	73	56	566
Shoe-knife	G. T. Fisher	452,999	May 26	2518	637	55	1077

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Shoe-maker's bench.....	G. W. Ludlow.....	446,135	Feb. 10	1020	252	54	718
Shoe-maker's jack.....	J. B. Litchman.....	453,401	June 2	342	88, 89	55	1212
Shoe-maker's rule.....	W. Damer.....	451,552	May 5	160	39	55	610
Shoe-maker's tool.....	S. Benson.....	451,019	Apr. 28	2143	530	55	439
Shoe-nail.....	F. F. Raymond, 2d.....	461,510	Oct. 20	1588	388	57	319
Shoe-nail.....	C. C. Small.....	461,853	Oct. 27	2131	525	57	430
Shoe-pattern.....	J. P. Eaton.....	460,569	Oct. 6	43	10	57	10
Shoe-protector.....	C. E. Hewland.....	449,416	Mar. 31	3505	882	54	1817
Shoe-rest.....	E. L. Butten.....	461,974	Oct. 27	2331	578	57	469
Shoe-shank-making machine.....	J. Hyslop, Jr.....	460,813	Oct. 6	434	109	57	87
Shoe-slugging machine.....	S. M. Cutter.....	457,257	Aug. 4	517	{ 135 136 }	56	629
Shoe-turning machine.....	J. H. Edgerly.....	460,526	Sept. 29	3117	779	56	1696
Shoe-upper.....	C. A. Bonney.....	465,236	Dec. 15	1950	497	57	1526
Shoe-upper.....	E. Waldschmidt.....	447,263	Feb. 24	2908	723	54	1103
Shoe-upper-stretching machine.....	F. A. and I. F. Peck.....	461,368	Oct. 13	1289	326	57	257
Shoe-uppers. Button-marker for.....	A. B. McCoy.....	455,759	July 14	754	{ 198 199 }	56	154
Shoe-uppers. Machine for cleaning.....	H. A. Webster.....	445,359	Jan. 27	2201	571	54	456
Shoe-sole-gage.....	T. A. Bresnahan.....	451,363	Apr. 28	2679	664	55	544
Shoe-tie fastener.....	J. B. Craig.....	463,573	Nov. 17	2154	569	57	985
Shoe-tip.....	A. Hansen.....	446,146	Feb. 10	1044	256	54	721
Shoe-tip.....	H. W. Merrill.....	448,247	Mar. 17	1587	405	54	1439
Shoe-tree.....	H. G. Locke, W. H. Cary, and J. E. Kimball.....	452,142	May 12	1129	{ 266 267 }	55	794
Shoe. Ventilated.....	L. F. Locke.....	466,061	Dec. 29	3313	846	57	1806
Shoes. Clamp for holding vamps and quarters for.....	E. B. Stimpson.....	446,158	Feb. 10	1064	{ 261 262 }	54	725
Shoes, &c. Composition of matter for soles of.....	G. E. Brown and J. W. Blackwell.....	460,842	Oct. 6	473	.....	57	94
Shoes, gloves, &c. Attachment for.....	B. A. McFadden.....	449,564	Mar. 31	3726	936	54	1858
Shoes. Inserting gores in.....	A. E. Wicks.....	445,580	Feb. 3	93	52	54	529
Shoes. Making.....	G. F. Brutt.....	448,206	Mar. 17	1526	391	54	1427
Shoes. Manufacture of turned.....	D. Bainbridge.....	463,885	Nov. 24	2637	{ 692 693 }	57	1087
Shoes. Toe-protector for children's.....	V. N. Browning.....	461,492	Oct. 20	1549	380	57	312
Shooting board and plane.....	C. Schraubstadter, Jr., and C. R. Schilling.....	463,924	Nov. 24	2724	707	57	1100
Shooting device. Trap.....	C. De Quillfeldt.....	466,257	Dec. 29	3610	924	57	1862
Shovel-hand machine.....	W. M. Carpenter.....	451,833	June 2	79	21, 22	55	1163
Shot-canister.....	J. H. Reid.....	454,124	June 16	1413	369	55	1433
Shot-screening machine.....	G. T. Haring.....	446,867	Feb. 24	2214	550	54	973
Shoulder-brace.....	H. Heyder.....	447,464	Mar. 3	324	81	54	1179
Shoulder-brace jacket.....	E. J. Swartwout.....	460,166	Sept. 29	2558	648	56	1588
Shoulder-strap bag or knapsack. Combined.....	J. T. Dwyer.....	447,669	Mar. 3	632	157	54	1237
Shovels.....							
See Cultivator-shovel. Steam-shovel.							
Shovel.....	D. A. Daly.....	450,449	Apr. 14	1222	299	55	239
Shovel.....	W. Wright and J. M. Barrett.....	456,459	July 21	1842	488	56	368
Shovel-blank.....	M. H. Evans, Jr.....	451,469	May 5	39	10	55	566
Shovel-protector.....	J. T. Omlor.....	449,568	Mar. 31	3730	937	54	1859
Shovels. Manufacture of.....	T. W. Wright.....	455,587	July 7	471	122	56	91
Shovels. Tamping-handle for.....	A. B. Smith.....	462,745	Nov. 10	826	{ 215 216 }	57	719
Show-case.....	G. E. Allisen.....	463,932	Nov. 24	2737	{ 709 710 }	57	1102
Show-case.....	C. A. Bacon.....	464,918	Dec. 8	1390	350	57	1409
Show-case.....	M. A. Campbell.....	464,148	Dec. 1	211	50	57	1175
Show-case.....	J. M. Sweeney.....	445,129	Jan. 20	1846	478	54	376
Show-case.....	D. H. Wightman.....	459,981	Sept. 22	2268	569	56	1525
Show-case alarm. Electric.....	R. C. Kruschke.....	460,019	Sept. 22	2321	581	56	1535
Show-case and ice-box.....	A. Weiss and E. F. W. Kunze.....	455,915	July 14	993	259	56	139
Show-case for spool-thread.....	C. E. Gould.....	446,642	Feb. 17	1854	460	54	892
Show-case or window-display stand.....	J. C. Meisenbach.....	463,667	Nov. 24	2316	608	57	1024
Show-case. Revolving.....	O. H. Kean.....	452,377	May 19	1511	374	55	877
Show-cover.....	L. F. Pieper.....	461,942	Oct. 27	2227	566	57	461
Show-rack.....	T. R. Boone.....	451,911	May 12	727	183	55	723
Show-rack for store-windows, &c.....	B. G. Casler.....	444,815	Jan. 20	1306	{ 339 340 }	54	272
Show-rack. Window.....	J. E. Briggs.....	446,982	Feb. 24	2410	600	54	1008
Show-stand.....	E. Brockmann.....	444,575	Jan. 11	942	244	54	135
Show-stand.....	E. Brockmann.....	447,658	Mar. 3	618	153	54	1235
Show-stand.....	J. Davies.....	451,919	May 12	740	186	55	725
Show-stand.....	J. W. Tyler.....	456,865	July 28	2532	663	56	504
Show-stand. Revolving.....	F. Pearce.....	459,592	Sept. 15	1661	415	56	1403
Show-table and bedstead. Combined extension.....	M. Rosenbaum.....	462,165	Oct. 27	2614	{ 651 652 }	57	523
Show-table, toilet-stand, and bureau. Combined extension.....	M. Rosenbaum.....	450,873	Apr. 21	1911	469	55	386
Shower-bath. Folding portable.....	O. F. Grant.....	462,125	Oct. 27	2563	{ 636 637 }	57	513
Shrinking-machine.....	F. Heilmann.....	453,114	May 26	2705	682	55	1114
Shutter-bower.....	T. W. Bartholomew.....	447,290	Mar. 3	10	4	51	1120
Shutter-bower.....	R. R. Walling.....	445,210	Jan. 27	1983	512	54	411
Shutter-fastener.....	R. J. Berdan.....	445,968	Feb. 10	742	122	54	667
Shutter-fastener, &c.....	E. G. Brower.....	455,735	July 14	725	190	55	118
Shutter-fastener.....	G. H. Burrows.....	445,366	Jan. 27	2209	573	54	457
Shutter-fastener.....	T. Bushey and L. Semmer.....	459,063	Sept. 8	813	197	56	1230
Shutter-fastener.....	W. R. Clark and G. W. Brodie.....	459,080	Sept. 8	835	202	56	1234
Shutter-fastener.....	W. H. Dailey.....	463,104	Nov. 10	1405	363	57	833
Shutter-fastener.....	A. A. Goubert.....	456,114	July 14	1277	{ 335 336 }	56	252
Shutter-fastener.....	A. A. Goubert.....	456,115	July 14	1279	{ 336 337 }	56	253
Shutter-fastener.....	E. T. Keener.....	459,292	Sept. 8	1167	284	56	1300

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g	Vol.	Page.
Shutter-fastener	W. B. Liming	464,884	Dec. 8	1347	338	57	1402
Shutter-fastener	A. P. Merrill	459,512	Sept. 15	1527	382	56	1378
Shutter-fastener	W. J. Monks	447,543	Mar. 3	455	112	54	1203
Shutter-fastener	W. E. Robinson	459,767	Sept. 22	1942	490	56	1463
Shutter-fastener guard	B. P. Mimmack	464,713	Dec. 8	1097	272	57	1353
Shutter. Flexible	H. N. H. Lugin	461,884	Oct. 27	2185	539	57	441
Shutter-operating device	W. C. Jarvis	453,640	June 9	729	188	55	1294
Shutter-spring	A. P. Merrill	460,646	Oct. 6	180	46	57	38
Shutter, storm-window, and screen-frame. Combined window.	C. H. Zeller	461,007	Oct. 13	720	185	57	147
Shutter-worker	G. Andreen	449,656	Apr. 7	5	1	55	4
Shutter-worker	J. H. Davidson	457,306	Aug. 4	605	158	56	645
Shutter-worker	C. F. Garland	465,257	Dec. 15	1991	509	57	1532
Shutter-worker	A. Merz	454,371	June 16	1787	466	55	1504
Shutter-worker	J. F. Newhall	445,299	Jan. 27	2109	546	54	436
Shutter-worker	C. R. Wells and B. K. Lewis	449,508	Mar. 31	3646	917	54	1844
Shuttle	A. M. Leslie	459,965	Sept. 22	2241	564	56	1521
Shuttle. Self-threading	J. H. Nason	452,614	May 19	1892	476	55	947
Sickle-bar	G. M. Combs	464,453	Dec. 1	684	168	57	1265
Sickle-grinder	G. J. Cline	418,473	Mar. 17	1977	496	54	1512
Sickles to be ground. Device for holding	D. C. Clapp	456,938	Aug. 4	13	3	56	535
Sidewalk	J. F. Jaquet and W. McAuslan	446,752	Feb. 17	2024	505	54	925
Sidewalk nail	J. W. Dickinson	464,961	Dec. 15	1472	370	57	1437
Siding for houses	G. R. Dean	464,172	Dec. 1	248	61	57	1182
Siding. Metallic	W. R. Kinnear	461,342	Oct. 13	1233	314	57	247
Sieve	S. G. Cooper	462,111	Oct. 27	2540	631	57	508
Sieve	A. Iske	463,501	Nov. 24	2513	657	57	1061
Sieve and mixer. Combined	A. M. Binan	454,323	June 16	1709	446	55	1491
Sieve for sifting flour	M. Lary	454,599	June 23	2160	558	55	1581
Sieve. Grain	J. S. and T. B. Rowell	452,065	May 12	994	252	55	771
Sieve or sifter	E. Wittmann	464,841	Dec. 8	1282	322	57	1389
Sifter	W. T. Hain	455,845	July 14	892	234	56	180
Sifter	W. T. Hain	455,846	July 14	893	234	56	180
Sifter and garbage-receptacle. Combined cinder	C. H. Stainton	454,887	June 30	2628	674	55	1675
Sifter. Ash	N. S. Bird	451,257	Apr. 28	2522	622	55	513
Sifter. Ash	B. H. Cook	464,183	Dec. 1	266	65	57	1186
Sifter. Ash	N. Hunt and F. C. Cash	456,036	July 14	1176	309	56	232
Sifter. Ash	J. Karle	445,784	Feb. 3	444	111	51	599
Sifter. Coal	E. W. Humphreys	448,818	Mar. 24	2524	633	54	1625
Sifter. Flour	F. Swallow and H. Yust	460,493	Sept. 29	3050	765	56	1621
Sifter or screen	J. B. White	449,342	Mar. 31	3367	849	54	1789
Sifting device	T. F. Crary	453,235	June 2	84	22	55	1164
Sight	V. A. Lamson	463,520	Nov. 17	2050	537	57	966
Sight-feed lubricator	E. Lunkenheimer	446,993	Feb. 24	2426	604	54	1011
Sight-feed lubricator	E. Lunkenheimer	457,998	Aug. 18	1760	462	56	881
Sign and apparatus for making the same	H. F. Blackwell, Jr., and W. G. Carlisle	456,545	July 28	1985	524	56	404
Sign. Changeable	A. L. Larkin	445,838	Feb. 3	541	132	54	617
Sign-letter	G. J. B. Rodwell	444,507	Jan. 13	836	217	54	174
Sign. Luminous	C. Beck	452,514	May 19	1739	438	55	918
Sign, price-card, &c.	C. H. Buxton	454,424	June 16	1871	489	55	1520
Sign. Reversible	H. Cochran	455,919	July 14	1001	260	56	201
Signs. Manufacturing sheet-metal	R. A. Busch	446,427	Feb. 17	1530	377	54	828
Signal:							
See Alarm-signal.	Railway alarm-signal.						
Block-signal.	Railway block-signal.						
Car-signal.	Railway-crossing alarm-signal.						
Electric signal.	signal.						
Electric-light-signal.	Railway time-signal.						
Electric-track-signal.	Railway-train signal.						
Fog-signal.	Semaphore-signal.						
Locomotive-signal.	Time signal.						
Pneumatic signal.	Train-signal.						
Railway-signal.							
Signal and telephone system. Combined	T. W. O'Brien	465,648	Dec. 22	2632	672	57	1665
Signal apparatus	M. Campbell	445,794	Feb. 3	465	114	54	602
Signal apparatus. Automatic	J. B. Stewart	462,513	Nov. 3	456	112	57	637
Signal apparatus. Municipal	B. J. Noyes	447,060	Feb. 24	2549	632	54	1033
Signal apparatus. Municipal	B. J. Noyes	447,061	Feb. 24	2551	634	54	1034
Signal-box	F. W. Cole	447,669	Mar. 10	982	246	54	1311
Signal-box	M. G. Davis	451,689	May 5	378	93	55	651
Signal-box	B. J. Noyes	447,062	Feb. 24	2552	634	54	1034
Signal-box	J. C. Wilson	444,144	Jan. 6	273	65, 66	54	56
Signal-box	J. C. Wilson	448,398	Mar. 17	1859	467	54	1490
Signal-box	J. C. Wilson	448,399	Mar. 17	1860	468	54	1490
Signal-box	J. C. Wilson	448,400	Mar. 17	1861	468	54	1491
Signal-box. Non-interference	F. W. Cole	445,799	Feb. 3	485	117	54	606
Signal-box. Non-interference	F. W. Cole	449,575	Mar. 31	3745	941	54	1861
Signal-box. Non-interference	F. W. Cole	449,576	Mar. 31	3747	941	54	1862
Signal-box. Non-interference	F. W. Cole	453,993	June 9	1230	320	55	1391
Signal-box. Non-interference	M. G. Crane	445,545	Feb. 3	25	7	54	516
Signal-box. Non-interference	W. H. Kirman	450,239	Apr. 14	895	223	55	173
Signal-box. Successive non-interference	F. W. Cole	445,795	Feb. 3	466	115	54	602
Signal-box. Successive non-interference	F. W. Cole	445,798	Feb. 3	462	117	54	605
Signal-box. Successive non-interference	F. W. Cole	445,800	Feb. 3	487	118	54	606
Signal-box. Successive non-interference	F. W. Cole	445,801	Feb. 3	489	118	54	607
Signal-box. Successive non-interference	F. W. Cole	445,802	Feb. 3	493	119	54	608
Signal-disks. Control apparatus for the position of	T. Weisser	461,657	Oct. 20	1815	448	57	361
Signal indicating apparatus	J. O. Ziegler	454,245	June 16	1591	419	55	1468
Signal-indicator lock	J. T. Hambay	456,952	Aug. 4	50	12	56	542

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Signal-light	G. T. Parry	448,069	Mar. 10	1304	333	54	1373
Signal system. Electric block	J. La Burt	461,760	Oct. 20	1979	489	57	393
Signal system. Light	B. J. Noyes and H. F. Eaton	450,182	Apr. 14	783	198	55	159
Signal-transmitting apparatus and system	H. A. Chase	465,989	Dec. 29	3176	814	57	1779
Signal-transmitting mechanism	H. A. Chase	465,990	Dec. 29	3190	816	57	1781
Signals electrically. Means for transmitting	T. A. Edison	465,971	Dec. 29	3141	805	57	1772
Signaling apparatus	C. T. Barrett	461,518	Oct. 20	1598	390	57	321
Signaling apparatus	R. J. Crowley	456,478	July 21	1872	494	56	373
Signaling apparatus	H. F. Eaton	455,873	July 14	931	245	56	187
Signaling apparatus	I. H. Farnham	444,108	Jan. 6	204	50	54	42
Signaling apparatus	W. S. Gilmore	449,674	Apr. 7	43	10	55	10
Signaling apparatus	O. Morgan and J. Crowley	444,991	Jan. 20	1639	420	54	336
Signaling apparatus. Air	G. B. Williams	446,275	Feb. 10	1282	314	54	765
Signaling apparatus. Circuit-connector for electric	W. L. Gates	461,075	Oct. 13	819	210	57	164
Signaling apparatus. Electric	F. W. Cole	465,991	Dec. 29	3197	816	57	1783
Signaling apparatus. Electric	M. Martin	454,973	June 30	2798	713	55	1709
Signaling apparatus. Electric	E. G. Mettler	461,104	Oct. 13	857	221	57	172
Signaling apparatus. Electric	G. E. Miller	464,979	Dec. 15	1504	377	57	1442
Signaling apparatus. Electric	B. J. Noyes	466,653	Dec. 29	3300	843	57	1804
Signaling apparatus. Electric railway	E. L. Harrison	448,031	Mar. 10	1250	318	54	1362
Signaling apparatus. Non-interference electrical	A. Newman	449,690	Apr. 7	64	16	55	14
Signaling apparatus. Pneumatic train	E. W. Craine	462,239	Nov. 3	27	6	57	557
Signaling apparatus. Police	H. A. Chase	452,771	May 26	2146	537	55	1005
Signaling apparatus. Police	B. J. Noyes	447,058	Feb. 24	2543	632	54	1032
Signaling apparatus. Police	B. J. Noyes	447,059	Feb. 24	2546	632	54	1033
Signaling apparatus. Train	L. F. Jordan	455,510	July 7	332	85, 86	56	66
Signaling apparatus. Train	H. R. Mason	456,333	Apr. 14	1038	255	55	205
Signaling apparatus. Train	H. R. Mason	450,334	Apr. 14	1042	256	55	206
Signaling apparatus. Train	H. R. Mason	450,335	Apr. 14	1046	257	55	207
Signaling apparatus. Train	H. R. Mason	463,063	Nov. 10	1330	344	57	818
Signaling apparatus. Train	H. R. Mason	463,064	Nov. 10	1333	344	57	819
Signaling apparatus. Train	H. R. Mason	463,065	Nov. 10	1336	345	57	820
Signaling apparatus. Train	H. R. Mason	463,066	Nov. 10	1340	347	57	820
Signaling apparatus. Train	P. Synnestvedt	465,396	Dec. 15	2222	570	57	1576
Signaling apparatus. Train	P. Synnestvedt	465,501	Dec. 22	2388	611	57	1618
Signaling circuit. Electric	M. Martin	454,974	June 30	2804	714	55	1710
Signaling device	F. St. Clair	465,768	Dec. 22	2808	719	57	1699
Signaling device	F. R. Thompson	459,083	Sept. 8	838	203	56	1234
Signaling device. Electric	S. J. Burrell and W. H. Markland	445,538	Feb. 3	13	3, 4	54	513
Signaling device. Electrical	C. J. Kintner	452,026	May 12	903	231	55	757
Signaling device. Railway	W. Newcomb	456,836	July 28	2470	649	56	494
Signaling switch and circuit	J. W. Stover	461,194	Oct. 13	1001	256	57	199
Signaling system	F. P. Benjamin	461,809	Oct. 27	2066	509	57	417
Signaling system	F. P. Benjamin	461,810	Oct. 27	2068	510	57	418
Signaling system and apparatus. Non-interfering successive	F. B. Wood	461,464	Oct. 20	1450	365	57	295
Signaling system. Electric	F. B. Wood	462,345	Nov. 3	195	49, 50	57	588
Signatures. Machine for gathering	H. E. Plimpton and W. I. Lewis	459,334	Sept. 8	1236	303	56	1313
Silicate compound	M. W. Beyliky	448,772	Mar. 24	2460	304	54	1612
Silk and other fibers. Machine for working	W. H. Jones	462,867	Nov. 10	1032	267	57	759
Silk. Apparatus for making artificial	H. de Chardonnet	460,629	Oct. 6	153	37	57	33
Singletree. Adjustable	S. Moeschler	460,443	Sept. 29	2968	742	56	1666
Sink and drip-board. Combined folding	S. J. Seymour	456,067	July 14	1214	320	56	239
Sink. Cast-iron	G. H. Shattuck	450,895	Apr. 21	1940	476	55	391
Sink-trap	J. B. Carroll	460,557	Oct. 6	19	5	57	6
Siphon	J. H. Damron	462,654	Nov. 3	675	171	57	681
Siphon	E. S. Hayden	459,838	Sept. 22	2052	516	56	1485
Siphon	J. Singer	465,734	Dec. 22	2749	702	57	1688
Siphon intermittent device	A. W. Maraun	449,267	Mar. 31	3218	812	54	1765
Siphon. Portable	H. S. Durand	453,628	June 9	713	184	55	1291
Siphoning apparatus	F. Stark	452,586	May 19	1850	465	55	939
Skate	S. S. Black	446,421	Feb. 17	1516	373	54	822
Skate	T. W. Bryant	464,312	Dec. 1	486	116	57	1227
Skate	C. T. Day	451,032	Apr. 28	2160	533	55	442
Skate	J. D. Freese	454,040	June 16	1295	338	55	1411
Skate	W. A. James	463,666	Nov. 24	2314	607	57	1023
Skate	R. E. Krause	455,751	July 14	746	196	56	152
Skate	G. de Rohonczy	462,279	Nov. 3	90	23	57	568
Skate. Roller	L. J. Masterson	457,129	Aug. 4	296	77, 78	56	590
Skate. Snow	R. W. Kydd	452,608	May 19	1884	474	55	946
Skaters. Ankle-supporter for	G. von Rohonczy	459,416	Sept. 15	1697	425	56	1409
Skating-rink. Artificial-ice	I. H. and W. M. Jewell	462,316	Nov. 3	158	40	57	581
Skein-lacer	R. Simon	460,665	Oct. 6	208	53, 54	57	43
Skelp-mills, &c. Feeding device for	T. J. Price	450,423	Apr. 14	1189	290	55	233
Skid. Adjustable	L. J. Chase	460,196	Sept. 29	2599	648	56	1595
Skid. Safe	H. H. Slough	458,697	Sept. 1	233	55	56	1110
Skins. Machine for coloring	A. Travis	456,605	July 28	2078	549	56	421

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr.	Vol.	Page.
Skins. Machine for staking	G. V. Anderson	457,331	Aug. 4	653	171	56	634
Skus. Preparing	G. H. Farthing	457,828	Sept. 1	436	56	56	1148
Skirt-bands. Pattern for cutting conical	J. Havender	460,132	Sept. 29	2513	626	56	1579
Skirt-elevator	A. Lange	455,752	July 14	747	196	56	152
Skirt-elevator	C. Seel	462,221	Oct. 27	2715	684	57	542
Skirt-form	T. Leavis	445,375	Jan. 27	2219	575	54	459
Skirt-form	A. Vasseur	457,062	Aug. 4	208	50	56	573
Skirt-protector	M. Rosenstock	455,264	June 30	3292	534	55	1801
Skirt-protector	F. L. Rosenthal	458,039	Aug. 18	1824	475	56	893
Skirt. Riding	H. White	457,142	Aug. 4	320	83	56	594
Skiving-machine	B. F. Dunham	452,996	May 26	2515	637	55	1076
Skiving-machine	C. S. Fifield	459,231	Sept. 8	1073	261 262	56	1280
Skiving-machine	J. R. Scott	453,944	June 9	1160	303	55	1378
Sky-rocket. Miniature	P. J. Sprague	477,383	Aug. 11	776	199	56	684
Skylight	G. Bickelhaupt	445,685	Feb. 3	283	75	54	568
Skylight	J. Fitzberger	463,963	Nov. 24	2755	720	57	1111
Skylight and ventilator. Combined	E. M. Riester	465,889	Dec. 29	3013	771	57	1748
Skylight-bars. Machine for forming sheet-metal	S. F. Hicks	455,021	July 7	522	134 135 136 137	56	100
Skylight lifter and lock	W. Trebilcock	455,134	June 30	3084	785	55	1764
Slag-pot	J. F. Keiper	463,515	Nov. 17	2045	536	57	965
Slate	E. C. Hudson	446,777	Feb. 17	2056	512	54	932
Slate	B. F. E. Jahr and H. L. Wedekind	463,837	Nov. 24	2569	669	57	1073
Slate attachment	M. Wyman	450,092	Apr. 7	652	164	55	128
Slate brick. Making	W. L. Gregg	451,818	May 5	572	55	56	6-8
Slate-chamfering machine	F. Shenton	451,778	May 5	513	126 127	55	67
Slate-dressing machine	J. H. Rudolph	461,450	Oct. 20	1426	359 360	57	290
Slate-frame	S. Marks	445,660	Feb. 3	232	62	54	557
Slate frame. School	E. L. Kraus	461,442	Oct. 20	1411	356	57	287
Slate-picker	D. A. Bartl and J. C. Bowman	454,393	June 16	1816	475	55	1510
Slate-picking mechanism	E. B. Cuxe	450,482	Apr. 14	1270	310	55	248
Slate. School	H. C. Goodrich	453,971	June 9	1194	312	55	1384
Slate. School	H. S. Semmel, J. W. Balliet, and S. J. Schaffer	451,336	Apr. 28	2043	653	55	537
Slats. Device for repairing broken	I. Z. Merriam	458,319	Aug. 25	2276	556	56	985
Slats to webs of canvas. Machine for applying	J. F. Kingwill	453,176	May 26	2840	712 713	55	1137
Slaughtering animals. Derrick for	W. F. Kingery and J. B. Cavanaugh	448,054	Mar. 10	1285	328	54	1369
Slaughtering apparatus	T. H. Curtis	448,413	Mar. 17	1880	472 473	54	1494
Slaw and ensilage cutter	C. J. Miller	459,450	Sept. 15	1442	362	56	1362
Sled. Bob	J. H. Weicher	464,927	Dec. 8	1400	353	57	1412
Sled-brake	E. Crosby	464,266	Dec. 1	1469	112	57	1223
Sled. Self-propelling	J. Gifford	461,112	Oct. 13	866	223	57	174
Sled-shoe	W. E. Anderson	463,132	Nov. 17	1454	377	57	851
Sled. Velocipede	F. J. Arney	459,850	Sept. 22	2069	520	56	1488
Sleeper-clamp	G. Michaud	466,308	Dec. 29	3694	943	57	1878
Sleeve-holder	H. L. Hoyt	462,555	Nov. 3	531	129	57	652
Sleeve-pattern	S. Bisceglia	455,811	July 14	847	222 223	56	170
Sleigh	D. C. Bouton	462,684	Nov. 10	712	192	57	702
Sleigh	H. Brunn	458,722	Sept. 1	267	63	56	1116
Sleigh	J. Carter	453,546	June 2	576	147	55	1257
Sleigh	M. Payne	462,579	Nov. 3	568	138	57	660
Sleigh	J. Tyler	453,679	June 9	787	202	55	1304
Sleigh	D. G. Wyeth	444,405	Jan. 6	664	173	54	131
Sleigh-brace	J. P. Smith	459,336	Sept. 8	1240	304	56	1314
Sleigh-coupling	R. Eccles	458,103	Aug. 18	1917	498	56	913
Sleigh-knee	C. O. Snippen	458,294	Aug. 25	2239	547	56	979
Sleigh-knee	E. B. Wells	456,262	July 21	1520	403	56	308
Sleigh-runner	J. A. Gendron	455,098	June 30	3026	769	55	1752
Sleigh-runner	H. and J. K. Pangborn	462,731	Nov. 10	809	211	57	716
Sleigh-runner	J. Radley	448,754	Mar. 24	2436	609	54	1607
Sleigh-runner. Attachable	J. E. Hobbs and B. M. Wentworth	448,430	Mar. 17	1907	420	54	1500
Slicer	J. Spillinger	417,847	Mar. 10	946	217	54	1304
Slicer	J. E. Stuart	453,451	June 2	440	113	55	1231
Slicer and grater. Combined vegetable	L. Weishan and F. Jaster	461,656	Oct. 20	1813	417	57	361
Slicer. Apple	E. Church	464,674	Dec. 8	1026	257	57	1240
Slicer. Apple	I. Platschart	452,034	May 12	923	236	55	760
Slicer, grater, and beater. Domestic	M. John	449,907	Apr. 7	396	99	55	77
Slicer. Onion	J. F. A. Edwards	461,821	Oct. 27	2091	515	57	422
Slicing, chipping, and grinding machine	J. G. Schmidt	465,891	Dec. 29	3015	771	57	1748
Sliding and swinging gate	W. F. C. Sanbrough	457,230	Aug. 4	467	123	56	620
Sliding gate	A. E. Bright	460,711	Oct. 6	292	71	57	57
Sliding gate	H. V. Clynick	465,776	Dec. 22	2820	723	57	1701
Sliding gate	W. H. Cox	445,163	Jan. 27	1911	493 494	54	397
Sliding gate	J. M. Vanover	448,466	Mar. 17	1963	493	54	1510
Sliding gate	W. R. White	464,235	Dec. 1	360	87	57	1201
Sliding-hill and carriage to be used therewith	L. D. B. Shaw	456,438	July 21	1812	479	56	361
Sliding screen, door, &c	C. B. Bishop	451,631	May 5	290	71	55	633
Slimo, &c. Sizing apparatus for	C. A. E. Meinicke	446,149	Feb. 10	1049	258	54	722
Slip, label, card, or letter file	J. L. Gilman	460,862	Oct. 6	500	128	57	99
Slot-machine. Information	A. G. Hart	456,566	July 28	2013	532	56	408
Slotting-machine	H. B. Robischung	452,482	May 19	1691	426	55	909
Slotting-machine	H. B. Robischung	461,307	Dec. 1	481	115	57	1226
Slotting-machines. Tool and tool-holder for	J. and T. Carter	458,616	Sept. 1	107	24	56	1087
Smelting-furnace	W. L. Austin	460,193	Sept. 29	2593	646 647	56	1594
Smelting-furnace. Cupola	C. Sahler	445,381	Jan. 27	2327	577	54	460

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Smoke-bell hanger	C. Q. Standard	450,799	Apr. 21	1785	434	55	364
Smoke-conductor	J. R. Johnson	450,023	Apr. 7	555	138	55	108
Smoke conductor	C. D. Tilhson	453,379	June 2	305	80	55	1205
Smoke-consumer	F. L. Bates	455,153	June 30	3121	793	55	1771
Smoke-consumer	J. C. Lowdon and J. Dixon	448,530	Mar. 17	2055	514	54	1527
Smoke-consumer	J. Player	449,827	Apr. 7	222	75	55	56
Smoke-consumer	F. T. Robinson	451,977	May 12	823	210	55	742
Smoke-consuming apparatus	F. T. Schmidt	447,367	Mar. 3	149	40, 41	54	1146
Smoke-consuming furnace	G. K. Geiger, W. D. McKenzie, and G. L. Cross.	453,805	June 9	985	256	55	1342
Smoke-consuming furnace	J. D. Lee	464,506	Dec. 8	769	189	57	1291
Smoke-consuming furnace	D. J. Murnane and L. J. Treacy	461,580	Dec. 8	878	216	57	1312
Smoke-consuming furnace	C. Stauss	458,642	Sept. 1	148	35	56	1095
Smoke-consuming furnace	G. F. Tinkham	460,189	Sept. 29	2587	615	56	1503
Smoke-conveyer	W. Brennan	462,423	Nov. 3	334	82	57	614
Smoke-deflector	J. Wisdom	444,967	Jan. 20	1606	410	54	329
Smoke-preventers. Sound-arrester for steam-jet	R. D. Smith	463,606	Nov. 17	2212	583	57	996
Smoke stacks. Means for regulating the draft in	W. Bullock	454,996	Sept. 8	700	172	56	1210
Smoke-stacks. Whirling top for	E. V. Dalton	453,465	June 2	459	118	55	1235
Smoking device	V. Gonzalez	455,614	July 7	512	132	56	98
Smoking-pipe	J. Arbtin	447,653	Mar. 3	614	151	54	1234
Smoking-pipe	D. M. Poulin	447,792	Mar. 10	856	213	54	1287
Smoking-pipe	G. Weinmann	451,313	Apr. 28	2610	644	55	530
Smoothing-iron	J. H. Toof	447,049	Feb. 24	2531	628	54	1030
Smoothing-iron. Electric	W. Mitchell	457,164	Aug. 4	353	90	56	600
Smoothing-irons. Electric heating-core for	W. Mitchell	450,980	Oct. 13	686	177	57	141
Smoothing-machine	T. M. Milton	456,366	July 21	1685	441	56	379
Smoothing ribbons, &c. Apparatus for	J. J. and T. A. Ruddy	457,881	Aug. 18	1568	407	56	845
Snap-hook	E. Bradley	462,907	Nov. 10	1097	295	57	772
Snap-hook	J. L. Buckingham and J. F. Yeates	449,870	Apr. 7	341	87	55	68
Snap-hook	J. Clary	456,137	July 21	1319	347	56	269
Snap-hook	W. R. Davis	454,031	June 16	1288	336	55	1409
Snap-hook	F. J. Herrick	466,136	Dec. 29	3431	878	57	1829
Snap-hook	G. M. Hubbard	447,567	Mar. 3	486	119	54	1209
Snap-hook	W. T. Morris	449,491	Mar. 31	3623	912	51	1834
Snap-hook	C. H. Smith	450,848	Apr. 21	1825	442	55	370
Snap-hook	C. H. Smith	461,646	Oct. 20	1796	442	57	357
Snap-hook	C. H. Smith	461,647	Oct. 20	1797	442	57	358
Snap-hook	C. H. Smith	465,296	Dec. 15	2053	524	57	1543
Snap-hook	G. M. Stout	444,717	Jan. 13	1144	294	54	233
Snap-hook	J. M. Stukes	451,341	Apr. 28	2647	655	55	538
Snap-hook	W. H. Whithy	461,928	Nov. 21	2730	708	57	1101
Snap-hook	F. White	451,314	Apr. 28	2610	644	55	531
Snap-hook. Lock	S. F. Berry	462,465	Nov. 3	394	96	57	625
Snap-switch	H. P. Ball	461,560	Oct. 20	1662	406	57	333
Snap-switch	H. P. Ball	461,561	Oct. 20	1662	406	57	333
Snatling-machine	T. A. Tripp	459,602	Sept. 15	1676	419	56	1406
Snatch-block	J. Henderson	458,658	Sept. 1	175	41	56	1098
Snatch block	F. F. Martin	462,923	Nov. 10	1215	317	57	795
Snow and ice from railway-tracks. Apparatus for removing	N. H. Bruce	457,702	Aug. 11	1257	325	56	776
Snow-broom	I. F. Baker and R. Booth	444,872	Jan. 20	1440	374	54	297
Snow from road-beds. Apparatus for removing	J. F. Seery	460,893	Oct. 6	557	140	57	109
Snow-guard	T. O'Gara	450,251	Apr. 14	914	226	55	182
Snow-guard	N. R. Powers	459,876	Sept. 22	2116	531	56	1497
Snow-guard	F. Reimel	463,235	Nov. 17	1613	420	57	881
Snow-plow	J. Boland	465,235	Dec. 15	1949	497	57	1525
Snow-plow	T. H. Fennell	453,832	June 9	1016	265	55	1349
Snow-plow	A. Gardiner	446,286	Feb. 10	1295	315	54	768
Snow-plow	H. A. Ruggles	460,761	Oct. 6	360	89	57	71
Snow-plow	T. Rye	453,942	June 9	1158	303	55	1377
Snow-plow	H. J. Small and T. W. Heintzelman	451,138	Apr. 23	2314	573	55	471
Snow-plow and rutler	I. K. Kerr	456,576	July 28	2030	537	56	412
Snow-plow flanger	E. P. Caldwell	454,109	June 16	1391	364	55	1429
Snow-plow. Rotary	J. W. Haughwout	446,773	Feb. 17	2052	511	54	931
Snow-plow. Rotary	J. W. Haughwout	450,487	Apr. 14	1279	313	55	250
Snow-sweeper	I. F. Baker and R. Booth	444,871	Jan. 20	1437	374	54	297
Soap compressing and stamping machine	J. B. Lawton and J. A. Mergenthal	448,656	Mar. 24	2273	569	54	1576
Soap-cutter	G. L. Geiger	461,672	Oct. 20	1838	454	57	365
Soap. Device for grating and delivering	G. S. Chamberlin	445,749	Feb. 3	422	105	54	595
Soap holder and distributor	H. F. Stowell	448,275	Mar. 17	1648	419	54	1450
Soap holder and rubber	J. H. Lee	445,701	Feb. 3	308	81	54	573
Soap-lye. Treatment of spent	O. C. Hagemann and E. K. Mitting	465,474	Dec. 22	2340	542	57	1609
Soap-making apparatus	W. A. Grant	457,914	Aug. 18	1623	421	56	854
Soap. Making hard potash	J. N. Zeitler	452,407	May 19	1568	361	55	888
Soap. Manufacturing compressed cakes of	E. G. Brown	461,973	Oct. 27	2330	578	57	469
Soap powder canister	F. S. Fairchild	464,315	Dec. 1	492	17	57	1227
Soap-powder holder	F. J. Lockwood	445,958	Feb. 3	720	176	54	653
Soap press	F. S. Rutschman	462,064	Oct. 27	2458	609	57	493
Soap. Securing backs to	J. Uster	452,419	May 19	1580	392	55	890
Soap or stocking	R. M. Appleton	454,634	June 23	2219	571	55	1591
Soap or stocking	R. L. Carlledge	456,476	July 21	1648	491	56	373
Socket-pipe for drainage, &c	H. Knowles	462,052	Oct. 27	2442	605	57	490
Soda-alm. Making	F. M. and D. D. Spence and A. Esilman.	454,189	June 16	1512	361	55	1452
Soda-alm. Manufacture of	F. M. and D. D. Spence	456,294	July 21	1574	361	56	318
Soda and other aerated fluids. Dispensing apparatus for	H. S. Park	454,493	June 23	1973	514	55	1549
Soda-fountain. Electric	W. Mitchell	460,979	Oct. 13	681	177	57	140
Soda. Making caustic	J. Simpson	462,366	Nov. 3	238	57	596	

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Soda-motor.....	R. R. Zell.....	453,334	June 2	242	65	55	1194
Soda-motor.....	R. R. Zell.....	457,831	Aug. 18	1472	{ 383 384 533 534	56	827
Soda-water apparatus.....	J. B. Herron.....	452,754	May 19	2121	{ 533 534	55	992
Soda-water apparatus.....	J. Ormerod.....	465,976	Dec. 29	3150	807	57	1774
Soda-water apparatus.....	G. O. Rennerfelt.....	456,161	July 21	1355	{ 359 360 278 279	56	277
Soda-water. Apparatus for dispensing hot.....	J. W. Tufts and C. Adami.....	453,872	June 9	1065	{ 278 279	55	1358
Soda-water fountain.....	A. D. Puffer.....	465,049	Dec. 15	1642	418	57	1467
Soda with strontium salts. Making.....	G. H. Gray.....	459,688	Sept. 15	1815		56	1132
Sodium aluminate. Making.....	A. Kayser.....	454,137	June 16	1435		55	1437
Sodium and potassium. Manufacturing.....	H. Y. Castner.....	452,030	May 12	915	233	55	759
Sodium. Obtaining metallic.....	L. Grabau.....	464,097	Dec. 1	138		57	1163
Sodium or potassium. Making.....	C. Netto.....	460,955	Oct. 13	692	179	57	142
Solar camera.....	F. T. Wilson.....	460,417	Sept. 29	2936	734	56	1659
Solar reflecting-camera.....	R. N. Reed.....	417,645	Mar. 3	606	149	54	1232
Solder.....	G. F. Pabst.....	448,161	Mar. 10	1439		54	1101
Solder rings. Machine for cutting and forming sheet.....	J. G. Hodgson.....	450,313	Apr. 14	1004	{ 248 249	55	199
Soldering aluminum.....	F. J. Page and H. A. Anderson.....	452,500	May 26	2190		55	1014
Soldering and cementing cans by electricity. Apparatus for.....	M. W. Dewey.....	445,771	Feb. 3	427	106	54	596
Soldering and cementing cans. Electric.....	M. W. Dewey.....	445,770	Feb. 3	422	{ 105 106	54	595
Soldering-clamp. Adjustable.....	A. B. Lee.....	459,637	Sept. 15	1747	439	56	1418
Soldering-iron.....	W. Bechtold.....	459,718	Sept. 15	1863	467	56	1441
Soldering-iron and pot-heater. Portable.....	W. A. Nicholas and H. Birnbaum.....	457,661	Aug. 11	1191	306	56	764
Soldering-iron. Electric.....	A. E. Appleyard.....	455,010	June 30	2874	730	55	1723
Soldering-iron. Electric.....	W. Mitchell.....	460,978	Oct. 13	683	177	57	140
Soldering-iron. Self-heating.....	C. Lehmann and E. Brunhoff.....	448,055	Mar. 10	1286	329	54	1369
Soldering-irons. Heating.....	F. S. Robinson.....	416,154	Feb. 10	1059	260	54	724
Soldering machine. Can.....	E. J. Bradley and R. C. Altpeter.....	461,092	Oct. 13	842	217	57	169
Soldering machine. Can.....	A. D. Coleman.....	446,162	Feb. 10	1081	266	54	727
Soldering machine. Can.....	J. B. Foole.....	465,018	Dec. 15	1589	405	57	1458
Soldering machine. Can.....	T. H. Hamilton.....	464,459	Dec. 1	691	170	57	1266
Soldering machine. Can.....	T. A. Hand.....	444,881	Jan. 20	1337	347	54	278
Soldering machine. Can.....	J. G. Hodgson.....	446,454	Feb. 17	1574	387	54	837
Soldering machine. Can.....	J. S. Hull.....	448,345	Mar. 17	1779	{ 449 450	54	1475
Soldering machine. Can.....	R. Loggie and J. Mazroll.....	453,085	May 26	2957	670	55	1104
Soldering machine. Can.....	S. J. Seneca.....	452,584	May 19	1845	464	55	938
Soldering machine. Can.....	E. Thomson.....	444,226	Jan. 6	402	100	51	80
Soldering machine. Dip.....	E. G. Lanterback.....	445,956	Feb. 3	716	175	54	653
Soldering. Method of and apparatus for electric.....	A. Robinson.....	449,255	Mar. 31	3208	209	54	1763
Soldering or brazing by electricity.....	C. L. Coffin.....	460,428	Sept. 29	2949	737	56	1662
Soldering-tool.....	E. L. Barber.....	446,765	Feb. 17	2043	509	51	929
Soldering-tool.....	H. Beutelspacher.....	450,093	Apr. 7	653	164	55	128
Soldering-tool.....	C. L. Wagandt.....	462,607	Nov. 3	607	{ 150 151	57	668
Sole.....	S. A. Lentz.....	463,971	Nov. 24	2794	724	57	1114
Sole-beating-out machine.....	J. C. Cutcheon and C. S. Johnson.....	454,258	June 16	1610	423	55	1472
Sole-buffing machine.....	J. H. Ryder.....	464,232	Dec. 1	355	86	57	1201
Sole-channeling machine.....	M. L. Keith.....	448,436	Mar. 17	1918	{ 482 483	54	1502
Sole-cutting die.....	R. R. Gibbs.....	460,774	Oct. 6	380	93	57	74
Sole-cutting machine.....	M. E. Knight and H. B. Steele.....	444,982	Jan. 20	1623	{ 415 416 417 418	54	333
Sole-edge-inking device.....	C. K. Bradford.....	445,158	Jan. 27	1905	492	51	396
Sole-edge trimmer.....	B. W. Marr.....	455,969	July 14	1077	282	56	213
Sole-edge-trimming machines. Belt-tightener for.....	W. Lahey.....	450,387	Apr. 14	1129	{ 276 277	55	222
Sole-edges. Machine for thickening.....	E. M. Bent.....	452,988	May 26	2500	633	55	1074
Sole-fitting machine.....	M. L. Keith.....	448,435	Mar. 17	1916	482	54	1501
Sole. Inner.....	A. F. Littlefield.....	462,442	Nov. 3	357	88	57	618
Sole-leveling machines. Jack for.....	O. K. Purly.....	461,392	Oct. 13	1330	{ 335 336 337	57	265
Sole-machine.....	J. J. Heys and M. V. Bresnahan.....	456,413	July 21	1764	{ 466 467	56	353
Sole-machine.....	C. A. Wentworth.....	447,389	Mar. 3	186	49	54	1153
Sole-machine.....	W. Wolfe.....	460,494	Sept. 29	3051	766	56	1682
Sole-machine jack.....	G. H. Cogswell.....	461,403	Oct. 13	1350	310	57	269
Sole-molding machine.....	J. W. Richmond.....	447,739	Mar. 3	739	{ 185 186	54	1257
Sole-protector.....	H. S. Lithgow.....	461,103	Oct. 13	856	220	57	172
Sole-rounding machine.....	G. Julian.....	446,686	Feb. 17	1922	{ 479 480	54	904
Sole-trimmer. Rotary.....	W. Polley.....	446,013	Feb. 10	820	198	54	620
Sole-trimming machine.....	G. W. Day.....	463,949	Nov. 24	2759	715	57	1107
Sole-trimming machine.....	A. S. Vose.....	452,027	May 12	906	232	55	758
Soles, &c. Machine for cutting.....	A. M. Stickney.....	446,555	Feb. 17	1728	{ 423 424	54	868
Solenoid and spool-magnet.....	H. S. Park.....	451,308	Apr. 28	2601	{ 641 642	55	529
Solutions. Apparatus for concentrating.....	J. Patten.....	452,507	May 19	1727	{ 434 435	55	915
Sonorous disks. Supporting.....	J. P. Smith.....	451,740	May 5	458	112	55	666
Soot-catcher. Self sustaining.....	S. Hart.....	460,205	Sept. 29	2615	653	56	1599
Soot-pan.....	P. Queenan.....	462,735	Nov. 10	813	212	57	717
Sound-arrester.....	E. Nashold.....	462,771	Nov. 10	870	{ 228 229	57	727

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Sounds. Electrical apparatus for reproducing	J. E. Roulez	450,426	Apr. 14	1193	291	55	234
Sounds. Method of and apparatus for determining the direction of	N. P. Otis and W. H. Underwood	448,252	Mar. 17	1599	407 408 409	54	1440
Sounding apparatus	G. A. Rung	466,128	Dec. 29	3415	875	57	1826
Sounding-post setter for stringed instruments	F. Weher	455,822	July 14	866	227	56	174
Sower. Broadcast seed	P. V. Wadleigh	462,341	Nov. 3	190	48	57	587
Sower. Seed	E. H. Baugh	459,922	Sept. 22	2191	550	56	1510
Sower. Seed	L. Eberhart	460,120	Sept. 29	2483	620	56	1573
Sower. Seed	L. Eberhart	460,121	Sept. 29	2487	620 621	56	1574
Spacing-instrument	J. T. Pedersen	452,019	May 12	893	229	55	755
Spanner-wrench	F. S. Cook	466,157	Dec. 29	3458	884	57	1834
Spark-arrester	G. R. Anderson	449,512	Mar. 31	3654	918	54	1845
Spark-arrester	H. Brookins	451,219	Apr. 28	2453	606	55	499
Spark-arrester	G. F. Evans	418,216	Mar. 17	1541	394	54	1430
Spark-arrester	E. J. Hadlock	450,012	Apr. 7	538	135	55	105
Spark-arrester	H. M. Hanson	462,127	Oct. 27	2565	637	57	513
Spark-arrester	D. Johnson	462,008	Oct. 27	2379	589	57	478
Spark-arrester	P. M. Low	459,179	Sept. 8	1001	244	56	1266
Spark-arrester and consumer	W. Burt	457,071	Aug. 4	222	56	56	575
Spark-arrester for smoke-pipes	W. B. Hale and R. E. Düringer	448,918	Mar. 24	2681	675	54	1655
Spark-arrester. Locomotive	E. B. Gibbs. (Reissue)	11,146	Feb. 17	2168	539	54	956
Spark-conductor	R. M. Tucker	462,749	Nov. 10	831	218	57	720
Spark-extinguisher	J. Y. Smith	460,224	Sept. 29	2641	659	56	1604
Speaking-tube	H. A. Cutmore	454,399	June 16	1822	477	55	1511
Speaking-tube	C. L. Peirce	453,848	June 9	1032	270	55	1352
Speaking-tube and earphone. Combined	F. Schlichtner	453,919	June 9	1128	295	55	1371
Speaking-tubes. Mouth-piece for	W. H. Ross	466,140	Dec. 29	3436	879	57	1830
Specific-gravity apparatus	J. V. Davis	465,841	Dec. 29	2924	748	57	1732
Specimen-box	C. M. Bryant	457,758	Aug. 11	1361	351	56	800
Spectacle-bridge	T. McBride and E. Fisher	461,364	Oct. 13	1283	325	57	256
Spectacle-frame	J. L. Borsch	463,312	Nov. 17	1736	454	57	904
Spectacle-frame temple	B. I. Price	444,505	Jan. 13	832	216	54	174
Spectacle-frame. Trial	G. Johnston	414,495	Jan. 13	817	213	54	171
Spectacle or eyeglass rim	E. C. Bise	451,016	Apr. 28	2140	529	55	438
Spectacle or eyeglass shade	J. F. Strange	448,276	Mar. 17	1650	419	54	1451
Spectacles	O. J. Halbe	460,576	Oct. 6	52	13	57	12
Spectacles	A. J. Parker and G. M. Guerant	453,327	June 2	229	60	55	1191
Spectacles	T. A. Willson	452,008	May 12	875	223	55	752
Spectacles	T. A. Willson	452,009	May 12	876	223	55	752
Spectacles. Bifocal	G. T. Cline	447,128	Feb. 24	2646	657	54	1053
Spectacles or eyeglasses. Rimless	J. G. Missimer	450,177	Apr. 14	778	197	55	158
Spectacles. Stone-cutter's	T. L. Williams	451,230	Apr. 28	2477	612	55	503
Speculum	W. E. Clough	447,761	Mar. 10	786	195	54	1274
Speculum	J. W. Daily	458,708	Sept. 1	247	59	56	1113
Speculum	T. A. Edwards	462,827	Nov. 10	967	251	57	747
Speculum	J. E. Lee	449,941	Apr. 7	442	110	55	87
Speculum. Rectal	T. T. Davis	466,004	Dec. 29	3222	820	57	1786
Speculum. Rectal	H. G. Leisenring	457,787	Aug. 18	1405	364	56	814
Speed-controlling device	W. C. Baird	449,063	Mar. 24	2897	735	54	1696
Speed-controlling device	H. A. Ballard	462,028	Oct. 27	2411	598	57	484
Speed-controlling device	J. G. Blount	453,033	May 26	2568	649	55	1007
Speed-gearing. Changeable	L. Heath	458,830	Sept. 1	438	106	56	1149
Speed-governor	H. A. Ballard	456,392	July 21	1733	458	56	347
Speed-governor	E. E. Jepsen	456,893	July 28	2564	674	56	511
Speed-governor	F. F. Landis	456,150	July 21	1339	355	56	273
Speed-governor. Centrifugal	J. W. Brown	449,729	Apr. 7	132	33	55	28
Speed-indicator	J. Boyer	460,460	Sept. 29	2997	751	56	1671
Speed-indicator	W. C. Westaway and G. I. Leonard	456,919	July 28	2617	687	56	521
Speed-measure	G. Berry	449,398	Mar. 31	3469	874	54	1809
Speed of machinery. Device for varying the	C. M. Conradson	460,284	Sept. 29	2740	682	56	1623
Speed recorder and register	E. Verstraete	454,391	June 16	1813	473	55	1509
Speed-regulating mechanism. Rotative	A. Scott	444,136	Jan. 6	259	62	54	53
Speed-regulator	T. M. Foote	453,591	June 2	645	166	55	1270
Speed-regulator	A. B. Morse	449,688	Apr. 7	60	15	55	13
Speed-regulator for motors	E. H. Amet	462,228	Nov. 3	5	1	57	554
Speeding and reversing gear	F. E. Tremper	465,570	Dec. 22	2509	640	57	1641
Spewing-box for use on board ship	H. Scheller	445,086	Jan. 20	1778	458	54	363
Spice. Device for grinding	G. Mader and H. R. Heinz	455,818	July 14	860	225	56	173
Spice-mill	A. Maillot	459,854	Sept. 22	2077	522	56	1490
Spigot	T. Savill	453,668	June 9	772	199	55	1302
Spike	F. W. Aldrich	452,892	May 26	2337	590	55	1042
Spike	M. Haupteicht	461,477	Oct. 20	1530	375	57	308
Spike	B. Janquera	450,811	Apr. 21	1804	438	55	367
Spike	D. Minich	464,980	Dec. 15	1506	378	57	1442
Spike	C. E. Seymour	449,705	Apr. 7	94	25	55	20
Spike	J. S. Van Leer and J. T. Redmon	460,412	Sept. 29	2926	731	56	1658
Spike-extractor	J. E. Stout	460,897	Oct. 6	562	142	57	110
Spike-extractor or lifting-jack. Convertible	C. M. Edwards	444,427	Jan. 13	701	183	54	146
Spike-machine	G. A. Brown	454,455	June 23	1917	500	55	1538
Spike. Rolled	H. A. Harvey	456,723	July 28	2274	603	56	460
Spikes. Making	E. E. Angell and S. Porter	454,696	June 23	2077	592	55	1610
Spikes or nails. Manufacturing	W. Goldie	457,583	Aug. 11	1081	277	56	743
Spindle-hands. Take-up device for	T. Walker	449,810	Apr. 7	555	65	55	51
Spindle-driving bands. Tension-regulating device for	W. Dootson	447,301	Mar. 3	27	8	54	1123
Spindle-support	J. W. Wattles	463,114	Nov. 10	1421	367	57	836
Spindles for weaving-shuttles. Making	C. E. Söderberg	458,507	Aug. 25	2585	630	56	1044
Spindles of mules, &c. Portable apparatus for placing cop-tubes upon the	E. Jagger	459,975	Sept. 22	2260	567	56	1523
Spindles on spindle-rolls. Locking-bar for	S. A. Jenks	461,199	Oct. 13	1010	257	57	200
Spinning and analogous machines. Cop-building mechanism for	J. Boyd	453,352	June 2	271	72	55	1199
Spinning and doubling cotton or other fibrous substances. Mule and twiner for	W. H. Rhodes	448,077	Mar. 10	1313	336	54	1375

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Spinning and doubling machines. Spindle and bobbin for	W. R. Sidebottom	458,431	Aug. 25	2461	599	56	1021
Spinning and twisting machine. Ring	F. M. Franke	456,249	July 21	1500	{ 398 399 }	56	303
Spinning and twisting machines. Band-cylinder for	J. Hamer	456,765	July 28	2361	621	56	475
Spinning and twisting machines. Cut-off mechanism for	W. E. Walsh	455,521	July 7	348	89	56	69
Spinning and twisting machines. Ring-rail for	A. F. Bentley	460,247	Sept. 29	2672	666	56	1610
Spinning and twisting machines. Spindle-bearing for	C. E. Getchell	460,067	Sept. 22	2305	578	56	1532
Spinning and twisting machines. Spindle-support for	T. Mayor	454,282	June 16	1647	432	55	1478
Spinning and twisting machines. Spindle support for	H. F. Woodmancy	455,525	July 7	360	92	56	71
Spinning and twisting machines. Washer for	J. Walker	447,388	Mar. 3	185	49	54	1153
Spinning-die	P. J. Killeen, Jr., and P. H. Birmingham.	465,578	Dec. 22	2525	643	57	1644
Spinning-frame	J. Whitehead	453,271	June 2	143	40	55	1175
Spinning-frame. Ring	J. A. Burke and T. Moriarty	462,791	Nov. 10	901	236	57	734
Spinning-frames. Cop-building mechanism for	H. C. Spence	465,217	Dec. 15	1922	489	57	1520
Spinning-frames or other machines. Indicator for	A. R. Clarkson	448,123	Mar. 10	1376	352	54	1398
Spinning-frames. Separator for ring	D. J. Green	459,894	Sept. 22	2145	539	56	1503
Spinning-frames. Spindle supporting and driving device for	J. Duffy	445,500	Jan. 27	2404	628	54	494
Spinning-frames. Thread-tension device for	J. S. Macfarlane	459,947	Sept. 22	2224	558	56	1517
Spinning-jenny	E. H. Kiernan	453,399	June 2	339	88	55	1211
Spinning-machine	T. Downward	461,628	Oct. 20	1772	436	57	353
Spinning-machine spindle-driving device	S. James and J. K. Sanders	446,751	Feb. 17	2022	505	54	925
Spinning-machine spindle-driving mechanism	C. W. Jones	448,239	Mar. 17	1578	403	54	1437
Spinning-machine. Ring	J. Imbs	454,823	June 23	2511	646	55	1647
Spinning-machines. Ring-rail for	W. H. Miley	459,760	Sept. 22	1930	486	56	1461
Spinning-machines. Saddle for top rolls of	W. T. Carroll	453,854	June 9	1039	272	55	1354
Spinning-machines. Spindle-band tension-regulator for	P. Feather	459,454	Sept. 15	1435	{ 360 361 }	56	1361
Spinning-machines. Spindle-driving mechanism for	E. A. Baldwin	452,332	May 12	1442	356	55	854
Spinning-machines. Tension device for endless bands of	A. C. Dakin	458,444	Aug. 25	2483	604	56	1024
Spinning-machines. Yarn-nipper for	L. Wimmer	463,589	Nov. 17	2180	576	57	9-9
Spinning-machines. Yarn-separator for	T. H. Speakman	459,713	Sept. 15	1854	466	56	1446
Spinning-machinery. Roller traverse motion for	G. Hurst and J. Fenton	451,764	May 5	496	122	55	672
Spinning-mules, &c. Driving-gear for	J. Moorhouse and J. Ashton	452,848	May 26	2263	568	55	1028
Spinning or like frames. Lubricating device for the top rolls of	J. A. McDowell-Guajardo	457,877	Aug. 18	1559	405	56	843
Spinning or winding machines. Indicator for	J. S. Macfarlane	454,957	June 30	2765	704	55	1701
Spinning-ring coupler	C. McCarty	458,255	Sept. 8	1110	271	56	1284
Spinning-spindle driving mechanism	C. Schrepfer	465,001	Dec. 15	1563	{ 397 398 }	57	1453
Spinning-spindle step-bearing	J. W. Wattles	449,341	Mar. 31	3366	848	54	1769
Spinning-spindle support	G. Bernhard	461,591	Oct. 20	1709	418	57	341
Spinning-spindle support	C. A. Chappell	450,992	Apr. 21	2099	517	55	422
Spinning-spindle support	E. S. Draper	447,400	Mar. 3	206	54	54	1157
Spinning-spindle support	J. R. Gray	461,432	Oct. 20	1399	353	57	225
Spinning-spindle support	J. R. Gray	461,882	Oct. 27	2182	538	57	441
Spinning-spindle support	J. W. Parkin	446,207	Feb. 10	1149	281	54	739
Spinning-spindle support	R. White	446,909	Feb. 24	2433	605	54	1012
Spinning-spindles. Bobbin-holder for	T. J. Muddock and J. T. Ashworth	457,857	July 14	907	238	56	182
Spinning tubes	J. H. Bevington	444,721	Jan. 13	1148	{ 295 296 }	54	234
Spirals. Apparatus for forming	H. H. Warren	446,042	Feb. 10	872	212	54	689
Spittoon carrier and washer	C. E. Jennings and P. H. Mueller	465,781	Dec. 22	2827	724	57	1703
Splasher-holder	M. E. Lunn and M. C. Shafer	456,273	July 21	1531	407	56	310
Splice-bars. Manufacturing	J. Coyne	451,635	May 5	294	72	55	634
Split switches. Slide-plate appliance for	A. A. Strom	452,323	May 12	1422	352	55	850
Spoke machine. Metallic	R. Alpe	463,745	Dec. 22	2777	709	57	1633
Spoke-puller	H. Dahlman	462,536	Nov. 3	499	122	57	646
Spoke-socket	L. G. Harper	459,256	Sept. 8	1159	252	56	1298
Spoke-tenons. Machine for turning	J. M. Sherman	458,276	Aug. 25	2216	543	56	974
Spoke. Wheel	W. Bristow	451,206	Apr. 28	2439	603	55	496
Spokeshave	J. F. Magnuson	452,498	May 19	1715	431	55	913
Spool	F. M. Marcy	455,224	June 30	3336	822	55	1794
Spool	J. P. Sinclair and F. A. Finlay	463,203	Nov. 17	1567	408	57	871
Spool. Braid	J. J. Hahn	462,004	Oct. 27	2374	588	57	477
Spool-cabinet	J. C. Kinney	445,263	Jan. 27	2069	534	54	427
Spool-cabinet	L. M. Robbins	464,230	Dec. 1	352	85	57	1200
Spool-cabinet and the like	C. Tollner	463,847	Nov. 24	2587	674	57	1076
Spool-finishing machine	J. M. Parker	463,688	Nov. 24	2351	{ 616 617 }	57	1030
Spool for textile machinery	J. E. Phillips	449,914	Apr. 7	407	102	55	80
Spool-holder	J. E. Blackmore	444,113	Jan. 6	213	51	54	43
Spool-holder	G. H. Cate	462,622	Nov. 3	632	160	57	673
Spool-holder	I. V. Cooper	456,683	July 14	1236	324	56	243
Spool-holder	W. H. Denney	461,701	Oct. 20	1891	468	57	376
Spool-holder	W. J. Haas	462,702	Nov. 10	766	199	57	707
Spool-holder	P. F. Henebry	460,534	Sept. 29	3134	783	56	1699
Spool-holder	E. S. Jackson	448,799	Mar. 24	2499	626	54	1620
Spool or bobbin	H. S. Frost	458,971	Sept. 1	658	161	56	1194
Spool or bobbin	H. L. Moulton	461,686	Oct. 20	1861	461	57	376
Spool-turning machine	J. M. Parker	454,684	June 23	22-9	587	55	1605
Spooling-machines. Bobbin-holder for	J. S. Richardson	457,011	Aug. 4	122	30	56	557
Spooling-machines. Yarn-cleaner for	J. M. Curtice	448,622	Mar. 17	2217	555	54	1559
Spoon	G. Gray	453,972	June 9	1195	312	55	1384
Spoon	W. S. O'Brien	457,748	Aug. 11	1345	348	56	797
Spoon	M. L. Schoch	461,623	Oct. 20	1764	434	57	351
Spoon. Orange	A. F. Jackson	457,723	Aug. 11	1201	336	56	784
Spoons and forks. Manufacture of	H. C. Hart	460,374	Sept. 29	2-81	719	56	1649
Spoons. Making	H. C. Hart	458,168	Aug. 25	2021	524	56	939
Spout. Sap	E. Willis	455,784	July 14	795	208	56	162

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Cr.	Vol.	Page.
Spouts. Construction of rain-water down.	J. Johnson	453,485	June 2	487	126	55	1240
Spray-producing apparatus	S. H. Stott	458,433	Aug. 25	2464	599	56	1021
Spraying device	W. J. Kniff	453,918	June 9	1126	295	55	1370
Spraying device for vines, shrubs, &c.	M. J. Caswell	459,573	Sept. 15	1625	407	56	1396
Spread-eagle	H. Fachs	459,683	Sept. 15	1808	434	56	1431
Spring:							
<i>See</i> Bed-spring.	Locomotive-spring.						
Bell-spring.	Pump-spring.						
Bicycle-seat spring.	Safety-spring.						
Bolster-spring.	Seat-spring.						
Buckboard-spring.	Semi-elliptic spring.						
Car-spring.	Shutter-spring.						
Carriage-spring.	Stretcher-spring.						
Coiled spring.	Vehicle-spring.						
Door-spring.	Watch case spring.						
Elliptic spring.							
Spring	J. H. Sullivan	452,088	May 12	1033	261	55	777
Spring bending and fitting machine	J. E. Bidwell	462,646	Nov. 3	667	168	57	680
Spring bending and fitting machine	J. E. Bidwell	462,617	Nov. 3	668	169	57	680
Spring-equalizer	M. T. Foster	456,406	July 21	1752	463	56	351
Spring-holding bracket	C. Kade	448,240	Mar. 17	1579	403	54	1437
Spring-jack switch	W. R. Patterson	464,519	Dec. 8	797	195	57	1296
Spring-motor	J. A. Adams	450,953	Apr. 21	2026	500	55	409
Spring-motor	C. A. Loring	445,563	Feb. 3	67	16	54	525
Spring-motor	D. B. Merry and W. M. Shelman	444,073	Jan. 6	150	37	54	32
Spring-motor	I. S. Patton	460,655	Oct. 6	193	49, 50	57	40
Spring-motor	E. S. Reed	444,206	Jan. 20	1495	386	54	308
Spring-motor	E. S. Reed	444,907	Jan. 20	1499	387	54	309
Spring-motor	E. S. Reed	444,908	Jan. 20	1501	387	54	309
Spring-motor	E. S. Reed and C. T. Painter	444,905	Jan. 20	1492	386	54	308
Spring-motor	B. Reichelt	449,384	Mar. 31	3444	866	54	1804
Spring-motor	H. H. Wilburn	436,455	July 21	1835	487	56	366
Spring-motor	A. A. Wood	458,123	Aug. 18	1944	505	56	917
Spring-motor winding-lever	W. B. Norton	455,291	June 30	3363	848	55	1818
Spring-seat	J. W. Bridwell and W. J. Morgan	454,453	June 23	1916	499	55	1538
Spring-seat	G. E. McCormick and W. B. McLean	451,291	Apr. 28	2580	637	55	525
Spring-seat. Ventilated	J. W. Kenfield	462,317	Nov. 3	159	41	57	581
Spring-setting machine	E. Cliff	457,073	Aug. 4	225	36, 37	56	576
Spring-shaping machine	C. F. Shoemaker	453,779	June 9	951	246	55	1336
Spring-tension. Device for regulating	C. Sinning	458,920	Sept. 1	579	141	56	1176
Spring-testing device	A. B. Calkins	450,989	Apr. 21	2092	515	55	421
Spring-winding machine	J. Meili	458,034	Aug. 18	1817	474	56	891
Springs. Machinery for tapering the ends of bars or rods for making coiled	W. C. Farnum	451,636	May 5	295	72	55	634
Springs. Manufacture of	P. O. Greipp	454,963	June 30	2771	706	55	1703
Sprinkler:							
<i>See</i> Automatic-sprinkler. Lawn-sprinkler.							
Fire-sprinkler. Street-sprinkler.							
Fire-extinguishing Water-sprinkler.							
sprinkler.							
Sprinkler	A. J. Bartlett	455,151	June 30	3119	792	55	1770
Sprinkler	E. Hoxie	458,628	Sept. 1	126	28	56	1090
Sprinkler	G. B. Smith	459,419	Sept. 15	1430	359	56	1359
Sprinkler	F. Splittstoser	460,368	Sept. 20	2872	717	56	1618
Sprinkler and seeder. Combined	R. M. Dalton	451,107	Apr. 28	2260	560	55	464
Sprinkler-head	G. W. Young	452,329	May 12	1437	355	55	853
Sprinkler-head. Automatic	F. G. Jahn	461,634	Oct. 20	1780	438	57	351
Sprinkler-nozzle	M. J. Caswell	458,014	Aug. 18	1789	467	56	886
Sprinkling-can	A. P. and F. M. Baker	453,530	June 2	553	141	55	1252
Sprocket-wheel	T. J. Neacy	457,420	Aug. 11	827	214	56	694
Spur	G. J. Bancroft	444,407	Jan. 6	667	174	54	132
Spur	D. Hutt	450,512	Apr. 14	1316	323	55	259
Square and bevel. Combined	A. G. Chase	445,389	Jan. 27	2237	581	54	462
Square and pitch-board	J. H. French	456,216	July 21	1433	381	56	292
Square. Bevel	S. D. Latcher	451,659	May 5	331	82	55	642
Square. Folding	H. F. Hegeman	466,099	Dec. 29	3364	859	57	1816
Square for rafter and stair work	W. H. Bast	458,441	Aug. 25	2478	603	56	1023
Square. Self-marking try-	W. Johnson	464,074	Dec. 1	104	26	57	1157
Square. Separable	D. L. Gregory	459,361	Sept. 3	1277	315	56	1322
Square. T	T. J. Weaver	458,606	Sept. 1	90	20	56	1083
Squaring-shears	E. O. Pohl	459,159	Sept. 8	966	235	56	1261
Stable-floor	R. W. McLaury	456,274	July 21	1532	407	56	310
Stable-pavement	J. Jungbluth	458,788	Sept. 1	360	87	56	1134
Stables. Combined partitioned and box stall for.	G. F. Davis	447,561	Mar. 3	479	117	54	1207
Stage and scenic effect for dramatic representations, &c.	C. B. Jefferson	465,011	Dec. 15	1623	415	57	1466
Stage-bracket	G. A. Chandler	464,769	Dec. 8	1183	224	57	1369
Stage-setting for theaters	J. Hart	454,471	June 23	1942	506	55	1543
Stage-setting for theatrical representation of games	J. Hart	454,472	June 23	1943	507	55	1513
Staging-bracket. Collapsible	G. R. C. Davis	464,243	Dec. 1	372	90	57	1204
Stair-pad	T. S. Sperry	446,213	Feb. 10	1163	285	51	742
Stairs. Metallic corner for	L. A. Howell	450,102	Apr. 7	669	169	55	131
Stake-pocket	H. W. Avery	444,375	Jan. 6	612	157	51	121
Stake-pocket	J. H. Evans	451,117	Apr. 28	2274	563	55	466
Stalk-chopper and cotton-thinner	C. S. Mauldin	439,640	Sept. 15	1759	440	56	1419
Stalk-cutter	J. Blue	461,309	Oct. 13	1184	301	57	237
Stalk-cutter	R. N. Brownlee	460,243	Oct. 6	473	120	57	94
Stalk puller and cutter. Combined	W. D. and U. C. Geiger	453,634	June 9	723	186	55	1293

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Stalk-stripper	P. G. Bible	450,445	Apr. 14	1218	298	55	239
Stalks. Machine for breaking	A. A. Guichard	448,230	Mar. 17	1564	399	54	1434
Stall. Animal	D. C. York	457,806	Aug. 18	1438	372	56	821
Stall-floor	R. Lee	454,745	June 23	2380	611	55	1624
Stall-floor	A. R. Smith	463,244	Nov. 17	1627	425	57	884
Stallion-shield	I. W. Benedict	448,757	Mar. 24	2439	610	54	1608
Stamp	C. H. Shaw	417,912	Mar. 10	1056	264	54	1325
Stamp actuated by electro magnets. Time	W. B. Martindale	449,759	Apr. 7	178	44	55	36
Stamp-affixing machine	W. H. King	449,544	Mar. 31	3698	929 } 930 }	54	1853
Stamp. Alphabetical printing	A. J. Bradley	453,609	June 9	679	176	55	1284
Stamp and file. Combined canceling	C. M. Powers	456,429	July 21	1802	476	56	359
Stamp-applying device	W. B. Bunker	452,257	May 12	1313	329	55	831
Stamp. Automatic time	H. A. Chase	445,161	Jan. 27	1908	493	54	397
Stamp. Automatic time	P. G. Girond	452,428	May 19	1594	396 } 397 }	55	893
Stamp. Electric time	W. B. Martindale and E. R. Malm- borg	449,081	Mar. 24	2921	741	54	1701
Stamp. Hand	J. J. Clarkson	465,754	Dec. 22	2783	712	57	1695
Stamp. Hand	F. H. Cross	457,304	Aug. 4	603	158	56	645
Stamp. Hand	J. T. Fox	448,606	Mar. 17	2182	545	54	1551
Stamp. Hand	H. Howard	449,076	Mar. 24	2914	739 } 740 }	54	1699
Stamp. Hand	W. R. Kennedy	456,416	July 21	1773	469	56	355
Stamp. Hand	F. M. King	451,275	Apr. 28	2557	630	55	520
Stamp. Hand	E. Reynolds	446,587	Feb. 17	1769	436 } 437 }	54	876
Stamp. Hand	W. W. Sawyer	462,065	Oct. 27	2460	610	57	494
Stamp. Hand	W. W. Sawyer	462,066	Oct. 27	2462	610	57	494
Stamp. Hand	W. J. Towry and G. A. Pickup	457,432	Aug. 11	843	218	56	698
Stamp. Hand	H. J. F. Wert	458,085	Aug. 18	1883	491	56	906
Stamp. Hand printing	R. H. Smith	449,831	Apr. 7	289	76	55	57
Stamp. Marking	N. C. Lane	461,116	Oct. 13	870	224	57	175
Stamp-mill cam	A. Ramage	446,693	Feb. 17	1932	482	51	905
Stamp-mills. Sectional cam for	I. K. Cleaver	455,596	July 7	324	83	56	65
Stamp-moistening machine. Postage	C. E. O. Hager	453,112	May 26	2703	681	55	1114
Stamp or label	A. C. Fletcher	444,344	Jan. 6	564	145	54	112
Stamp or label affixer	W. B. Shafer	458,599	Sept. 1	78	18	56	1081
Stamp pads. Inker for rubber	G. J. B. Rodwell	446,889	Feb. 24	2261	562	54	981
Stamp. Perforating	A. Von Brandis	447,089	Feb. 24	2589	642	54	1041
Stamp. Post-office hand	E. J. Brooks	451,887	May 5	668	169	55	706
Stamp. Safety address	D. Skutsch	464,085	Dec. 1	119	30	57	1169
Stamp. Self-inking	C. S. Burton	449,309	Mar. 31	3298	824	54	1779
Stamp. Self-inking hand	E. C. Ryer	454,499	June 23	1985	516	55	1551
Stamp-selling and change-returning machine	S. B. Whiteside	461,461	Oct. 20	1446	364	57	214
Stamp. Steam ore	E. W. Curtiss	465,128	Dec. 15	1792	452 } 453 }	57	1494
Stamp. Thumb	W. A. Smith	446,540	Feb. 17	1704	418	54	863
Stamp. Time	J. V. Hulse, Jr	457,279	Aug. 4	557	146 } 147 }	56	636
Stamp. Time	J. D. Mallonee	462,212	Oct. 27	2699	679	57	538
Stamp. Time	J. M. Peters	453,206	June 2	35	11	55	1156
Stamp. Time	F. H. Symonds	465,683	Dec. 22	2687	685	57	1674
Stamp. Time and calendar	E. W. Morton	460,881	Oct. 6	528	135	57	104
Stamp. Time-registering	E. W. Morton	445,570	Feb. 3	75	18	54	526
Stamp-vending apparatus. Postage	L. S. Darr	446,434	Feb. 17	1538	378	54	830
Stamps. Approval-sheet for	R. F. Albrecht	454,416	June 16	1863	487	55	1519
Stamps. Apparatus for affixing adhesive	S. H. Thorp	460,383	Sept. 29	2891	722	56	1651
Stamps. Apparatus for attaching adhesive	C. W. Tobey	447,212	Feb. 24	2816	698 } 699 } 700 }	54	1084
Stamps. Device for moistening and affixing postage	W. W. Hamilton	445,993	Feb. 10	799	194	54	677
Stamps or other articles. Holder for postage	B. F. Carpenter	447,663	Mar. 3	623	155	54	1236
Stamps sold and canceled, &c. Register for	J. M. Ferrell	448,645	Mar. 24	2256	566	54	1572
Stamping or printing instrument. Time	O. P. Lochmann	451,767	May 5	499	123	55	673
Stanchion	G. W. Clark	451,026	Apr. 28	2153	532	55	411
Stanchion	L. E. Glazier	456,269	July 21	1527	406	56	309
Stanchion	J. McBride	446,264	Feb. 10	1266	310	54	762
Stanchion	C. Phelon	464,080	Dec. 1	113	28	57	1158
Stanchion	E. Prescott	465,200	Dec. 15	1899	482	57	1515
Stanchion	Z. W. Smith	462,172	Oct. 27	2626	655	57	525
Stanchion	J. O. Wicks	456,871	July 28	2530	665	56	505
Stanchion for ships	J. H. Bell	449,994	Apr. 7	521	130	55	101
Stand							
See Barrel-stand. Garment-stand.							
Basket-stand. Horseshoe-stand.							
Bell-stand. Hone-stand.							
Bicycle-stand. Music-stand.							
Boiler-stand. Photographic stand.							
Book-stand. Plant-stand.							
Bread-mixing stand. Railway-switch stand.							
Cigar-stand. Sewing-stand.							
Cigar-maker's stand. Show-stand.							
Dental-service stand. Switch-stand.							
Display-stand. Trolley-stand.							
Displaying-stand. Trolley-pole stand.							
Fire-iron stand. Wall-paper stand.							
Flower-stand. Wash-stand.							
Standard	T. F. Reilly	452,416	May 19	1577	391	55	890
Staple	H. H. Jester	416,523	Feb. 17	1678	409	54	858
Staple-clinching device. Wire	E. Grunich	447,314	Mar. 3	50	13	54	1127
Staple-fastening machine	R. H. Little	449,779	Apr. 7	208	53, 51	55	43

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Sg.	Vol.	Page.
Staple forming and setting machine.....	J. Howenstine.....	456,415	July 21	1769	{ 468 469	{ 56	354
Staple-machine.....	J. D. Warden.....	461,654	Oct. 20	1810	{ 446 447	{ 57	360
Staple-puller.....	J. A. Truman.....	450,922	Apr. 21	1975	484	55	399
Staple-setting machine.....	G. Hay.....	461,337	Oct. 13	1227	312	57	245
Stapling-machine.....	W. S. Hamm.....	447,681	Mar. 3	647	{ 161 162	{ 54	1241
Stapling-machine.....	J. Helm.....	457,049	Aug. 4	171	43	56	566
Stapling-machine.....	H. R. Heyl.....	444,178	Jan. 6	328	80	54	66
Starch. Continuous automatic machine for the man- ufacture of.....	J. A. Ostenberg.....	450,492	Apr. 14	1287	{ 315 316	{ 55	253
Starch. Making.....	J. H. C. Van Deuse and M. J. Reise- ger.....	444,127	Jan. 6	248	60	54	51
Starch-table. Continuous automatic.....	J. A. Ostenberg.....	447,790	Mar. 10	841	211	54	1284
Starching-machine.....	E. Hurlburt and D. H. Benjamin.....	458,272	Aug. 25	2206	{ 540 541	{ 56	972
Station-indicator.....	J. F. Hartigan.....	448,147	Mar. 10	1413	361	54	1396
Station-indicator.....	J. A. Kane.....	462,138	Oct. 27	2580	643	57	516
Station-indicator.....	J. R. Meadowcroft.....	454,559	June 23	2078	536	55	1568
Station-indicator.....	F. Moore.....	448,982	Mar. 24	2770	{ 700 701	{ 54	1671
Station-indicator.....	J. M. Nelson.....	463,072	Nov. 10	1350	349	57	822
Station-indicator.....	M. Pacholder.....	461,507	Oct. 20	1569	{ 385 386	{ 57	316
Station-indicator.....	G. W. Robertson.....	462,588	Nov. 3	580	{ 141 142 143	{ 57	662
Station-indicator.....	F. Rochow.....	455,360	July 7	94	27	56	22
Station-indicator.....	I. N. and S. Soly.....	459,215	Sept. 8	1053	{ 256 257	{ 56	1277
Station-indicator.....	F. S. Wilson.....	446,120	Feb. 10	992	{ 244 245	{ 54	712
Station-indicator. Electrical.....	E. S. Ely.....	445,773	Feb. 3	432	107	54	596
Station-indicators. Automatic operating mechanism for.....	J. Kneffer.....	464,941	Dec. 8	1430	359	57	1419
Station or street indicator.....	W. S. Mallard.....	447,617	Mar. 3	565	{ 139 140	{ 54	1224
Stave-bending machine.....	F. and J. Brenner.....	447,295	Mar. 3	16	6	54	1121
Stave-bending machine.....	F. and J. Brenner.....	456,135	July 21	1316	347	56	269
Stave-making machinery.....	F. H. Brown.....	452,094	May 12	1045	{ 265 266	{ 55	779
Stave-jointing machine.....	J. Plenkharp.....	451,133	Apr. 28	2307	571	55	472
Stave-sawing machine.....	A. J. Carter.....	457,396	Aug. 11	791	{ 203 204	{ 56	687
Staves of casks. Apparatus for uniting the.....	C. Wyttenbach.....	459,921	Sept. 22	2129	550	56	1510
Stay. Dress.....	M. P. Bray.....	454,587	June 23	2129	549	55	1577
Steak-pounder.....	W. H. Tyson.....	449,485	Feb. 17	1618	396	54	847
Steak-tender.....	L. T. Williams.....	457,551	Aug. 11	1031	265	56	733
Steam and hot-air heater. Combined.....	W. H. Denslow.....	459,395	Sept. 15	1343	336	56	1343
Steam and hot-water generator.....	D. A. Dickinson.....	449,150	Mar. 31	3037	768	54	1731
Steam and hot-water generator.....	W. C. Higgins.....	453,697	June 9	823	209	55	1312
Steam. Apparatus for determining the amount of water in.....	M. Gehrle.....	465,321	Dec. 15	2091	533	57	1551
Steam. Apparatus for utilizing exhaust- Steam-boiler.....	G. T. Armitage.....	465,331	Dec. 15	2108	538	57	1554
Steam-boiler.....	W. J. Austin.....	460,299	Sept. 29	2762	688	56	1627
Steam-boiler.....	J. Baird.....	458,817	Sept. 1	413	98, 99	56	1144
Steam-boiler.....	J. Baird.....	458,818	Sept. 1	416	99	56	1145
Steam-boiler.....	J. Baird.....	458,819	Sept. 1	418	100	56	1149
Steam-boiler.....	J. Baird.....	460,838	Oct. 6	466	118	57	93
Steam-boiler.....	J. Baird.....	460,906	Oct. 6	577	{ 146 147	{ 57	113
Steam-boiler.....	J. Barlet.....	462,613	Nov. 3	616	154	57	670
Steam-boiler.....	S. H. Benson.....	457,103	Aug. 4	264	69	56	584
Steam-boiler.....	E. Blass.....	456,689	July 28	2216	587	56	448
Steam-boiler.....	R. Bottsford.....	445,689	Feb. 3	288	76	54	569
Steam-boiler.....	B. Brazelle.....	458,413	Aug. 25	2436	593	56	1016
Steam-boiler.....	H. B. Buckland.....	449,244	Mar. 31	3120	802	54	1758
Steam-boiler.....	J. A. Caldwell.....	459,742	Sept. 22	1906	481	56	1456
Steam-boiler.....	N. B. Clark and F. B. King.....	446,093	Feb. 10	950	{ 233 234	{ 54	704
Steam-boiler.....	N. B. Clark and F. B. King.....	465,082	Dec. 15	1701	{ 432 433	{ 57	1478
Steam-boiler.....	F. W. Coombs.....	464,556	Dec. 8	844	208	57	1305
Steam-boiler.....	W. H. Drake.....	464,065	Dec. 1	89	23	57	1154
Steam-boiler.....	S. Fowden.....	451,322	Apr. 28	2623	647	55	533
Steam-boiler.....	W. B. Fowler.....	462,975	Nov. 10	1206	314	57	793
Steam-boiler.....	J. Gangee.....	459,225	Sept. 8	1067	259	56	1279
Steam-boiler.....	C. F. Garland.....	447,308	Mar. 3	41	11	54	1125
Steam-boiler.....	U. G. Graham.....	455,318	July 7	29	8	56	896
Steam-boiler.....	J. Ham.....	458,049	Aug. 18	1838	479	56	896
Steam-boiler.....	A. Hebever.....	465,929	Dec. 29	3067	787	57	1759
Steam-boiler.....	R. D. Kassing.....	450,940	Apr. 21	1897	491	55	404
Steam-boiler.....	F. F. Landis.....	456,149	July 21	1337	355	56	273
Steam-boiler.....	L. W. Lester.....	464,827	Dec. 8	1265	316	57	1385
Steam-boiler.....	M. Levi.....	447,248	Feb. 24	2883	716	54	1098
Steam-boiler.....	J. Mac Cormack and H. L. Van Zile.....	446,785	Feb. 17	2065	514	54	934
Steam-boiler.....	W. M. Mackay.....	453,701	June 9	829	210	55	1312
Steam-boiler.....	J. O. Maguire.....	444,959	Jan. 20	1598	408	54	327
Steam-boiler.....	J. Mahoney.....	456,365	July 21	1684	443	56	339
Steam-boiler.....	D. P. McQueen.....	463,804	Nov. 24	2521	658	57	1062
Steam-boiler.....	D. P. McQueen.....	463,805	Nov. 24	2523	658	57	1063
Steam-boiler.....	E. J. Moore.....	451,734	May 5	413	{ 107 108	{ 55	663

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Steam-boiler	W. A. Morse	448,983	Mar. 24	2773	701	54	1672
Steam-boiler	T. Nesom	445,410	Jan. 27	2276	590	54	470
Steam-boiler	M. G. Nixon	462,325	Nov. 3	170	43	57	583
Steam-boiler	G. V. Sloat	466,191	Dec. 29	3510	{ 897 898 }	57	1-43
Steam-boiler	J. T. Smith	459,724	Sept. 15	1873	471	56	1443
Steam-boiler	F. Sommer	459,463	Sept. 15	1448	364	56	1363
Steam-boiler	W. W. Sutcliffe	455,805	July 14	834	219	56	169
Steam-boiler	J. J. Tonkin	448,867	Mar. 24	2613	656	54	1640
Steam-boiler	H. Vogt and R. H. Burns	449,922	Apr. 7	416	104	55	81
Steam-boiler	G. and J. N. Warrington	459,028	Sept. 8	757	{ 183 184 }	56	1220
Steam-boiler and furnace	G. A. Ayer	455,698	July 7	616	170	56	125
Steam-boiler and furnace	C. N. Bacon	454,446	June 23	1905	497	55	1355
Steam-boiler and furnace	G. C. Marden	458,118	Aug. 18	1937	504	56	916
Steam-boiler and furnace	J. E. McCreary	451,504	May 5	94	23	55	597
Steam boiler and generating appliance	F. E. Fitch	459,520	Sept. 15	1539	381	56	1379
Steam-boiler and water heater and filter. Combined	W. A. Morse	465,533	Dec. 22	2450	624	57	1629
Steam-boiler. Coil	J. A. Svedberg	459,528	Sept. 15	1555	387	56	1383
Steam boiler or generator	J. Lordard	462,568	Nov. 10	1034	268	57	700
Steam boiler or generator	B. L. Rinehart	453,391	June 2	321	84	55	1208
Steam-boiler. Sectional	L. D. Davis	459,998	Sept. 22	2290	574	56	1529
Steam-boiler. Sectional	A. T. Tregurtha	458,923	Sept. 1	5-6	{ 142 143 }	6	1178
Steam-boiler water-tube	E. A. Johns	465,408	Dec. 15	2239	574	57	1579
Steam-condensing apparatus	E. Theisen	463,467	Nov. 17	19-7	520	57	953
Steam. Conveying	A. Hall	444,549	Jan. 13	897	233	54	1-6
Steam-couplings. Universal joint for	T. W. Moran	459,565	Sept. 15	1612	404	56	1394
Steam-cylinder	C. F. Hinrichs and J. C. Barker	458,458	Aug. 25	2498	608	56	1027
Steam-drier. Rotary	F. C. Hersey	461,577	Oct. 20	1687	413	57	334
Steam-engine	R. W. Basom	445,967	Feb. 10	739	181	54	667
Steam-engine	E. B. Benham	459,735	Sept. 22	1894	{ 477 478 }	56	1454
Steam-engine	C. A. Blume and D. Lanum	447,292	Mar. 3	12	4-5	54	1120
Steam-engine	H. Bolthoff	451,720	May 5	421	{ 102 103 }	55	658
Steam-engine	G. A. Bronder	452,964	May 26	2460	{ 621 622 }	55	1067
Steam-engine	R. A. Carter	466,118	Dec. 29	3389	867	57	1821
Steam-engine	H. Christofferson	458,943	Sept. 1	611	151	56	11-5
Steam-engine	E. W. Curtiss	449,208	Mar. 31	3130	7-9	54	1748
Steam-engine	T. S. Davis	455,311	July 7	22	5-6	56	7
Steam-engine	M. B. Dodge	450,780	Apr. 21	1753	{ 425 426 }	55	357
Steam-engine	J. H. Eickershoff	456,694	July 28	2230	590	56	451
Steam-engine	F. M. Garland	448,917	Mar. 24	2680	674	54	1654
Steam-engine	W. E. Good	448,184	Mar. 10	1474	{ 375 376 }	54	1408
Steam-engine	H. Grafton	460,129	Sept. 29	2508	{ 624 625 }	56	1577
Steam-engine	M. J. Hinden	461,263	Oct. 13	1114	{ 284 285 }	57	222
Steam-engine	E. C. Johnson	453,641	June 9	731	189	55	1294
Steam-engine	E. C. Johnson	453,642	June 9	733	189	55	1295
Steam-engine	E. C. Johnson	453,643	June 9	735	190	55	1295
Steam-engine	I. Kentowski	449,422	Mar. 31	3517	{ 885 886 }	54	1819
Steam-engine	A. Leckie	453,866	June 9	1056	{ 276 277 }	55	1357
Steam-engine	J. T. Lemon	463,758	Nov. 24	2457	{ 642 643 }	57	1050
Steam-engine	W. T. Lord	459,407	Sept. 15	1366	342	56	1348
Steam-engine	A. McPherson	446,838	Feb. 17	2157	536	54	953
Steam-engine	G. C. Pyle	444,904	Jan. 20	1490	{ 384 385 }	54	307
Steam-engine	J. V. Rice, Jr.	465,099	Dec. 15	1732	440	57	14-4
Steam-engine	J. V. Rice, Jr.	465,100	Dec. 15	1737	441	57	14-5
Steam-engine	S. T. Richardson	456,848	July 28	2493	{ 655 656 }	56	498
Steam-engine	W. P. Seates	452,432	May 19	1605	399	55	895
Steam-engine	W. Scott and F. Fenley	462,593	Nov. 3	587	144	57	664
Steam-engine	E. S. Smith	457,926	Aug. 18	1644	{ 430 431 }	56	859
Steam engine	E. S. Smith	457,927	Aug. 18	1649	432	56	860
Steam-engine	H. R. Stickney	455,775	July 14	774	204	56	158
Steam-engine	C. L. and G. F. Swain	459,370	Sept. 8	1287	{ 317 318 }	56	1324
Steam-engine	O. Tackman	451,086	June 16	1361	355	55	1423
Steam-engine	C. W. Tremain	465,769	Dec. 22	2809	720	57	1499
Steam-engine	A. J. Vandegrift	462,1-2	Oct. 27	2644	{ 661 662 663 }	57	529
Steam-engine	P. W. Willans	452,551	May 19	1798	452	55	929
Steam-engine	W. Wright	445,334	Jan. 27	2167	561	54	448
Steam-engine. Compound	J. Baird	447,929	Mar. 10	1081	271	54	1350
Steam-engine. Compound	J. Baird	448,001	Mar. 10	1204	{ 205 306 }	54	1353
Steam-engine. Compound	E. P. Cowles	465,241	Dec. 15	1955	{ 500 501 }	57	1527
Steam-engine. Compound	J. H. Eickershoff	447,671	Mar. 3	633	157	54	1237
Steam-engine. Compound	J. H. Eickershoff	459,507	Sept. 15	1516	379	56	1376
Steam-engine connection	E. Courtwright	460,319	Sept. 29	2794	696	56	1633
Steam-engine. Direct-acting	J. A. Groshon	444,828	Jan. 20	1331	{ 345 346 }	54	277

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Steam-engine. Direct-acting	J. A. Groshon	444,829	Jan. 20	1333	{ 346 347	54	278
Steam-engine. Direct-acting	J. A. Groshon	446,582	Feb. 17	1762	{ 434 435	54	875
Steam-engine. Duplex	J. H. Blessing and C. H. Overton	451,904	May 5	695	{ 174 175	55	710
Steam-engine. Duplex	E. Hill	448,429	Mar. 17	1905	{ 478 479	54	1499
Steam-engine. Oscillating	J. Cone	453,964	June 9	1187	309	55	1383
Steam-engine. Oscillating	W. A. Graham	450,934	Apr. 21	1987	488	55	401
Steam-engine. Oscillating	W. Thomas	462,826	Nov. 10	965	{ 250 251	57	747
Steam-engine. Oscillating	W. Thomas	464,206	Dec. 1	314	76	57	1193
Steam-engine. Oscillating	H. L. Wilson	452,298	May 12	1369	341	55	841
Steam-engine. Triple	J. H. Blessing	451,849	May 5	607	151	55	695
Steam-generating apparatus	E. Fales	445,884	Feb. 3	610	150	54	631
Steam generation. Apparatus for instantaneous	H. F. C. Huss	445,222	Jan. 27	2004	516	54	415
Steam-generator	D. Almy	459,538	Sept. 15	1566	{ 390 391	56	1385
Steam-generator	J. J. Bush	447,865	Mar. 10	974	244	54	1310
Steam-generator	J. J. Bush	447,866	Mar. 10	977	245	54	1310
Steam-generator	A. J. Davis	456,648	July 28	2153	{ 570 571	56	437
Steam-generator	E. A. Deity	457,640	Aug. 11	1165	298	56	759
Steam-generator	A. H. Eddy	455,314	July 7	26	7	56	7
Steam-generator	J. A. Eno	461,498	Oct. 20	1557	382	57	314
Steam-generator	S. S. Fleming	445,760	Feb. 3	403	102	54	592
Steam-generator	C. W. Foster	463,501	Nov. 17	2026	531	57	960
Steam-generator	J. Jackson	455,622	July 7	523	137	56	101
Steam-generator	J. Jackson	455,623	July 7	526	138	56	101
Steam-generator	J. Jackson	462,557	Nov. 3	533	130	57	653
Steam-generator	T. F. Morrin	463,307	Nov. 17	1730	452	57	903
Steam-generator	N. T. Pitkin	452,388	May 19	1529	379	55	880
Steam-generator	F. J. Robinson	458,918	Sept. 1	577	140	56	1176
Steam-generator	S. D. Stauffer	461,454	Oct. 20	1431	361	57	291
Steam-generator	O. H. Taylor	463,652	Nov. 24	2296	603	57	1020
Steam-generator	J. Them	451,742	May 5	461	{ 112 113	55	666
Steam-generator	J. I. Thornycroft	452,401	May 19	1551	386	55	885
Steam-generator	J. I. Thornycroft	451,390	June 16	1812	{ 472 473	55	1509
Steam-generator	J. N. Tonns	452,502	May 19	1720	433	55	911
Steam-generator alarm	F. M. Ashley	415,468	Jan. 27	2385	620	54	491
Steam generator and flusher	W. C. Koeltzner and E. C. Livingston	446,223	Feb. 10	1175	288	54	744
Steam generator and heater. Electric	W. Mitchell	457,362	Aug. 11	739	189	56	677
Steam-generator. Flash	E. Reynolds	461,985	Oct. 27	2347	582	57	472
Steam-generator for vapor-baths	C. Cady	463,939	Nov. 24	2746	712	57	1104
Steam generator or evaporator	G. W. Baird	450,361	Apr. 14	1079	266	55	213
Steam generator or evaporator	D. B. Morison	460,150	Sept. 29	2532	{ 630 631	56	1582
Steam-generator or water-heater	W. Burling	465,239	Dec. 15	1953	499	57	1527
Steam-generator. Sectional	A. P. Bliven	461,124	Oct. 13	880	{ 228 229	57	177
Steam-generator. Sectional	C. C. Webber	451,094	Apr. 28	2239	{ 554 555	55	459
Steam-generators. Sectional casing for	T. F. Morrin	463,308	Nov. 17	1731	{ 452 453	57	903
Steam-kettle	T. Burkhard	458,298	Aug. 25	2248	549	56	980
Steam-kettle	T. Burkhard	458,299	Aug. 25	2249	549	56	980
Steam. Method of and apparatus for generating	E. Fales	448,947	Mar. 24	2722	{ 686 687	54	1662
Steam or hot-water generator	D. A. Dickinson	454,459	June 23	1922	502	55	1539
Steam or hot-water heater	C. Dubé	451,813	May 5	559	138	55	685
Steam-pipes. Floor and ceiling plate for	A. J. Beaton	453,461	June 2	455	117	55	1234
Steam purifier. Exhaust	F. L. McGahan	462,275	Nov. 3	85	21	57	567
Steam-separator	E. Erxleben	458,622	Sept. 1	116	26	56	1089
Steam-separator	H. E. Longwell	459,498	Sept. 15	1501	376	56	1373
Steam-separator	C. E. Manning	445,472	Jan. 27	2357	612	54	485
Steam-shovel	G. W. King	460,973	Oct. 13	674	174	57	138
Steam-trap	H. Creamer	457,983	Aug. 18	1740	{ 457 458	56	877
Steam-trap	J. H. Fogarty	450,453	Apr. 14	1226	300	55	240
Steam-trap	F. Funke	452,128	May 12	1107	282	55	790
Steam-trap	A. A. Goubert	464,018	Dec. 1	23	6, 7	57	1140
Steam-trap	L. Hussey and E. McCann	462,798	Nov. 10	915	{ 238 239	57	737
Steam-trap	A. B. Leith and B. Hampton	450,415	Apr. 14	1175	287	55	231
Steam-trap	F. A. Littlefield	460,143	Sept. 29	2525	628	56	1515
Steam-trap	J. E. Lonergan and A. Fogel	455,002	June 30	2859	727	55	1721
Steam-trap	J. F. McElroy	458,792	Sept. 1	365	89	56	1135
Steam-trap	F. G. Procmier	456,519	July 21	1911	512	56	387
Steam-trap	F. Sackett and W. F. Irwin	464,390	Dec. 1	596	147	57	1247
Steam-trap	H. C. Stifel	452,294	May 12	1364	340	55	840
Steam-trap	C. A. Sulzman	444,214	Jan. 6	379	94, 95	54	76
Steam-trap	B. Theens and W. Henderson	453,523	June 2	539	138	55	1249
Steam-trap	H. A. Tobey	451,533	May 5	132	32, 33	55	604
Steam-trap	L. Woerner	451,547	May 5	153	38	55	609
Steamboat smoke-stack	J. B. Brodaski	454,326	June 16	1714	447	55	1492
Steamer	G. W. Austin	452,901	May 26	2351	595	55	1045
Steamer	M. S. C. Hartmann	452,521	May 19	1753	441	55	921
Steamer. Dimpling	S. Gibson	447,678	Mar. 3	644	160	54	1240
Steamer. Fruit or vegetable	E. P. Ericson	463,499	Nov. 17	2021	531	57	960

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Steamer or heater for tempering wheat or other grain.	F. D. Zimmerman and F. Beall	460,624	Oct. 6	148	36	57	31
Steel and iron. Apparatus for hardening and tempering.	E. E. Ries	453,162	May 26	2783	700	55	1127
Steel and iron. Method of and apparatus for hardening and tempering.	E. E. Ries	453,163	May 26	2787	700	55	1128
Steel bending and forging apparatus.	S. Fox	448,814	Mar. 24	2521	631	54	1624
Steel bending and forging apparatus.	S. Fox	448,815	Mar. 24	2522	632	54	1624
Steel castings. Method of and apparatus for compressing.	S. C. Rockman	464,441	Dec. 1	667	163	57	1262
Steel. Composition for use in the manufacture of.	J. Mackintire	449,547	Mar. 31	3703		54	1854
Steel. Crucible for the manufacture of.	G. Nimmo	449,893	Apr. 7	248	62	55	49
Steel. Making.	G. Lindenthal	465,672	Dec. 22	2671	681	57	1671
Steel. Making.	R. P. Wilson	453,227	June 2	69	18	55	1161
Steel-making furnace. Basic-hearth.	J. Riley	464,229	Dec. 1	351	85	57	1200
Steel. Manufacturing.	W. J. Bell	465,314	Dec. 15	2081		57	1550
Steel. Manufacturing cast.	L. Cameron	464,920	Dec. 8	1392		57	1410
Steel. Method of and apparatus for determining the temper of.	C. A. Caspersson	458,724	Sept. 1	355	86	56	1133
Steel. Process of and apparatus for hardening hollow articles of.	H. A. Brustlein	449,998	Apr. 7	525	131	55	101
Steel. Testing the condition of.	J. Pedder	461,618	Oct. 20	1750	431	57	349
Steel. Toughening.	J. Coffin	452,031	May 12	917	234	55	759
Steel. Treating.	W. B. Middleton	448,534	Mar. 17	2060	54		1528
Steel wheels. Manufacture of annealed.	W. G. Richards	461,593	Oct. 20	1711	418	57	342
Steeping, boiling, or extracting vessel.	H. Palmieri	454,879	June 30	2603	669	55	1671
Steering apparatus.	J. B. Jardine	444,580	Jan. 13	948	245	54	196
Steering apparatus.	W. Rymer	448,263	Mar. 17	1620	413	54	1445
Steering apparatus. Rudder-lock for.	S. H. Le Fevre	460,706	Oct. 6	285	69	57	56
Steering apparatus. Steam.	J. B. Brodski	451,866	May 5	636	159	55	699
Steering-gear.	J. C. and S. Lake	464,304	Dec. 1	477	114	57	1225
Steering-gear for vessels.	D. Welch	452,742	May 19	2099	528	55	988
Steering-gear. Steam.	J. Russell	465,730	Dec. 22	2743	700	57	1687
Steering-gear. Steam and hand.	F. E. Sickels	444,024	Jan. 6	65	17	54	16
Steering mechanism.	W. Thomson	465,896	Dec. 29	3025	773	57	1750
Steering vessels by steam.	J. Irvin	454,909	June 30	2667	682	55	1683
Stem winding and setting mechanism.	F. P. Ripley	453,025	June 30	2595	736	55	1728
Stench-trap.	J. H. Wait	451,537	May 5	140	35	55	606
Stencil.	J. R. Bonrne	451,105	Apr. 28	2256	559	55	463
Stencil. Sand-blast.	J. H. Croskey and D. C. Ripley	454,241	Jan. 27	2028		54	420
Stenciling-machine.	G. H. Tietjen	452,624	May 19	1910	480	55	951
Steno-telegraphic apparatus.	A. Wood	460,619	Oct. 6	117	30, 31	57	25
Stenographers and short-hand writers. Machine for use by.	F. E. Granger	444,953	Jan. 20	1591	406	54	325
Step.	S. P. Williams	448,566	Mar. 17	2110	528	54	1538
Step. Folding.	J. S. Jordan and J. E. Eller	446,385	Feb. 10	1445	355	54	799
Stereopticon.	A. T. Thompson	446,238	Feb. 10	1225	300	54	755
Stereopticons. Light-casing for.	C. Beseler	466,150	Dec. 29	3449	882	57	1833
Stereotype backing powder or filling.	T. Mangin	453,343	June 2	256		55	1197
Stereotype-matrices. Machine for making.	J. R. Rogers. (Reissue)	11,198	Oct. 13	1365	344	57	272
Stereotype-mold.	C. Sears	446,930	Feb. 24	2332	579	54	993
Stereotype-molds. Frame for holding.	H. Schimanský and L. Passelt	446,695	Feb. 17	1934	482	54	906
Stereotype plate and base.	E. P. Mickel	465,532	Dec. 22	2440	624	57	1629
Stereotype plate and base with locking device.	B. F. Harris, Jr.	462,764	Nov. 10	860	225	57	725
Stereotype-plate holder.	C. Cartou, J. E. Caps, and W. J. Rose.	459,825	Sept. 22	2033	510	56	1481
Stereotype-plate holder.	H. Fietsch, Jr.	449,039	Mar. 24	2861	727	54	1690
Stereotype-plate trimming, beveling, and shaving machine. Combined.	J. R. Cummings	463,351	Dec. 15	2153	551	57	1562
Stereotype-plate trimming, grooving, and shaving machines. Delivery mechanism for.	J. R. Cummings	463,352	Dec. 15	2157	552	57	1563
Stereotype-plates. Racking-block for.	H. Dalziel	444,949	Jan. 20	1574	404	54	323
Stereotype-plates. Machine for trimming, shaving, and grooving.	J. R. Cummings	463,353	Dec. 15	2159	553	57	1563
Sterilizing apparatus.	J. F. H. Gronwald	455,923	July 14	1004	261	56	201
Sterilizing apparatus.	J. F. H. Gronwald and E. H. C. Oehlmann.	459,284	Sept. 8	1157	282	56	1298
Sterilizing apparatus.	G. H. Neuhans, J. F. H. Gronwald, and E. H. C. Oehlmann.	455,925	July 14	1009	263	56	202
Sterilizing apparatus.	E. H. C. Oehlmann and J. F. H. Gronwald.	459,302	Sept. 8	1180	287	56	1303
Sterilizing apparatus.	M. von Skotnicki	465,393	Dec. 15	2218	569	57	1575
Still.	C. L. Schaltz	460,365	Sept. 29	2869	716	56	1647
Stilts.	L. C. Johnson	450,357	Apr. 14	1075	264	55	212
Stirrer. Cake or pudding.	A. C. Boll	461,912	Oct. 27	2236	552	57	451
Stirring-machine.	D. H. McCoy	452,973	May 26	2476	626	55	1069
Stirrup.	J. W. Baker	453,607	June 9	677	176	55	1284
Stirrup.	G. A. Kerns	444,298	Jan. 6	499	130	54	99
Stirrup.	N. Pearson and S. Olsson	445,411	Jan. 27	2277	591	54	471
Stirrup. Safety.	J. D. Johnson and J. B. Willison	459,291	Sept. 8	1166	284	56	1300
Stitches. Forming chain.	H. Briggs	461,793	Oct. 20	2934	502	57	403
Stitches. Forming overedge or button-hole.	J. W. Lufkin	461,841	Oct. 27	2118	521	57	427
Stitching and barring machine. Button-hole.	J. H. Reed	454,067	June 16	1334	348	55	1418
Stitching and barring machine. Button-hole.	J. H. Reed	454,068	June 16	1337	349	55	1419

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Stitching and barring machine. Button-hole	J. H. Reed and C. A. Dahl	450,844	Apr. 21	1861	{ 454 455 456 495 496 497 498 499	55	376
Stitching and barring machine. Button-hole	J. H. Reed and C. A. Dahl	450,950	Apr. 21	2011	{ 452 453 497 498 499	55	406
Stitching-horse	H. J. Elskamp	458,104	Aug. 18	1918	{ 8 9 10	56	913
Stitching machine. Book	S. Elliott	456,946	Aug. 4	38	{ 265 266 20 21 22	56	540
Stitching machine. Button-hole	G. S. Hill	462,865	Nov. 10	1027	{ 20 21 22	57	759
Stitching machine. Button-hole	J. W. Lufkin	451,498	May 5	80	{ 190 191 192	55	594
Stitching machines. Clutch for button-hole	J. Reece	459,046	Sept. 8	787	{ 452 453	56	1226
Stitching machines. Mechanism for operating button-hole	C. A. Dahl	450,841	Apr. 21	1858	{ 452 453	55	376
Stock. Device for marking live	F. B. Conine	462,110	Oct. 27	2539	{ 631 309	57	508
Stock from barns. Apparatus for removing live	W. Jones	456,037	July 14	1177	{ 320 321	56	232
Stock material. Mechanism for feeding strips of	C. S. Gooding and R. L. Ellery	459,374	Sept. 8	1295	{ 105 106	56	1326
Stocking	R. M. Appleton	449,925	Apr. 7	421	{ 171 172	55	82
Stocking, &c.	J. Bourne	455,700	July 7	648	{ 37 9	56	125
Stocking	W. Esty	451,468	May 5	37	{ 251 197	55	586
Stocking	W. H. Howard	461,183	Oct. 13	977	{ 198 199	57	194
Stocking	G. A. Lorentz	455,757	July 14	752	{ 144 145	56	154
Stocking	R. W. Scott and L. N. D. Williams	462,592	Nov. 3	585	{ 527 528	57	663
Stocking	B. F. Shaw	453,512	June 2	527	{ 377 378	55	1247
Stocking	G. A. White	450,654	Apr. 21	1568	{ 377 378	55	323
Stocking	G. A. White	450,655	Apr. 21	1570	{ 572 573	55	323
Stocking and knitting the same	B. F. Shaw	459,992	Sept. 22	2283	{ 569 570	56	1528
Stocking and making the same	O. L. Merrow and A. E. Sanborn	445,352	Jan. 27	2195	{ 683 587	54	454
Stocking and making the same	H. C. Rightmire	465,678	Dec. 22	2678	{ 770 771	57	1673
Stocking and making the same	B. F. Shaw	460,037	Sept. 22	2344	{ 65 66 67	56	1540
Stoker. Automatic	A. M. Gow	449,157	Mar. 31	3046	{ 313 314	54	1733
Stoker. Mechanical	P. Rohan	451,622	May 5	275	{ 414 415	55	631
Stoker. Mechanical	J. B. Ward	446,274	Feb. 10	1280	{ 420 421	54	765
Stone. Artificial	G. H. Blake	460,195	Sept. 29	2598	{ 296 297	56	1595
Stone. Artificial	E. C. Brice	449,067	Mar. 24	2905	{ 549 550	54	1698
Stone. Artificial	L. Enricht	449,152	Mar. 31	3039	{ 433 434	54	1732
Stone. Artificial	G. E. Hagerman	454,346	June 16	1740	{ 263 264	55	1496
Stone. Artificial	W. Näf	455,924	July 14	1008	{ 702 703	56	202
Stone. Artificial building	E. H. Lewis	448,968	Mar. 24	2755	{ 695 696	54	1688
Stone-breaker	R. McCully	463,911	Nov. 24	2703	{ 570 571	57	1096
Stone, cement, and plastering composition. Artificial	E. H. Benedict and F. G. Bates	460,105	Sept. 29	2460	{ 679 680	56	1569
Stone-channeler	W. P. Scates and J. F. Woods	448,928	Mar. 24	2933	{ 549 550	51	1657
Stone-channeling machines. Lever for	J. Hengen	454,529	June 23	2131	{ 936 937	55	1577
Stone composition. Artificial	L. Enricht	449,151	Mar. 31	3039	{ 1690 1691	54	1732
Stone composition. Artificial	J. F. St. John	452,037	May 12	936	{ 55 56	55	762
Stone. Composition for artificial	E. Gallagher	457,953	Aug. 18	1690	{ 414 415	56	868
Stone. Composition of matter for artificial	T. W. Blakey	450,967	Apr. 21	2090	{ 414 415	55	421
Stone-crusher	G. Lowry	461,583	Oct. 20	1694	{ 420 421	57	339
Stone crusher and pulverizer	R. D. Gates	456,304	July 21	1587	{ 296 297	56	320
Stone-crushing apparatus	J. Henahan	463,765	Nov. 10	861	{ 476 477	57	725
Stone-crushing machine	J. O'Neil	452,615	May 19	1892	{ 1804 1805	55	948
Stone-cutters' use. Sliding gage for	D. J. Doane	459,679	Sept. 15	1804	{ 442 443	56	1430
Stone-cutting machine	D. Rettiger	457,213	Aug. 4	442	{ 101 102	56	616
Stone-cutting saw	E. Foerster	462,482	Nov. 3	414	{ 54 55	57	629
Stone-dressing machine	J. Kellow	445,644	Feb. 3	203	{ 710 711	54	552
Stone-dressing tools. Manufacture of	H. Baumette	465,748	Dec. 22	2781	{ 50 51	57	1694
Stone-drill	J. W. A. Gullick	456,951	Aug. 4	50	{ 179 180	56	542
Stone gatters. Device for rounding and smoothing the edges of artificial	M. Maurer	460,645	Oct. 6	179	{ 57 58	57	37
Stone. Manufacture of artificial	L. Enricht	449,214	Mar. 31	3137	{ 54 55	54	1750
Stone. Manufacture of artificial	L. Grote	464,120	Dec. 1	168	{ 510 511	57	1169
Stone. Manufacture of artificial	J. L. Rowland	448,675	Mar. 24	2900	{ 577 578	54	1581
Stone, &c. Manufacturing artificial	G. Richardson	461,688	Oct. 27	2190	{ 540 541	57	442
Stone. Method of and apparatus for sawing	C. W. Stevens	457,231	Aug. 4	469	{ 599 600	56	621
Stone or cement. Artificial	G. F. Clark	454,712	June 23	2332	{ 599 600	55	1615
Stone or cement. Artificial	L. Enricht	448,512	Mar. 17	2030	{ 54 55	54	1523
Stone or cement. Artificial	L. Enricht	448,513	Mar. 17	2031	{ 54 55	54	1523
Stone or cement. Artificial	L. Enricht	448,514	Mar. 17	2031	{ 54 55	54	1523
Stone or cement. Artificial	L. Enricht	449,619	Mar. 31	3539	{ 134 135	54	1879
Stone. Ornamenting artificial	W. Bleiss	451,799	May 5	543	{ 113 114	55	681
Stone pavements. Apparatus for cutting or marking artificial	G. F. Gray	460,821	Oct. 6	448	{ 46 47	57	89
Stone pavements. Device for blocking off artificial	M. Maurer	460,644	Oct. 6	178	{ 509 510	57	37
Stone-planing machine	C. Kennedy	454,481	June 23	1955	{ 43 44	55	1545
Stone-planing machine	E. Smallwood	447,372	Mar. 3	156	{ 650 651	54	1147
Stone-polishing head	J. Klar	451,327	Apr. 28	2611	{ 242 243	55	534
Stone-polishing machine	G. W. Stinebring	457,496	Aug. 11	955	{ 601 602	56	717
Stone saw mill	F. H. Kesseler	451,199	Apr. 28	2431	{ 228 229	55	495
Stone-sawing machinery	C. L. Walter	461,123	Oct. 13	879	{ 33 34	57	177
Stone-separator	D. Whittaker and L. H. Hamilton	455,375	July 7	123	{ 267 268	36	27
Stone-working apparatus	W. L. Kann	461,221	Oct. 13	1056	{ 16 17	37	210
Stool	G. F. Steese	464,046	Dec. 1	57	{ 69 70	57	1148
Stool. Camp	F. C. Lovejoy	455,345	July 7	69	{ 19 20	56	18

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Stool. Folding	A. G. Anderson	451,102	Apr. 28	2253	558	55	462
Stool. Milking	J. H. Stewart	461,944	Oct. 27	2289	567	57	461
Stool or seat. Folding	G. M. Thompson	451,084	Apr. 28	2225	551	55	456
Stool. Revolving adjustable piano	C. O. Parsons	464,319	Dec. 1	496	119	57	1228
Stools and chairs. Adjustable seat for	G. J. Waldvogel	459,161	Sept. 8	969	235	56	1261
Stools or chairs. Vertically-adjustable seat to.	A. Nauts	449,689	Apr. 7	63	15	55	14
Stop-motion for machines	I. S. Craig	448,578	Mar. 17	2126	533	54	1541
Stop-motion mechanism	W. L. Clouse	447,557	Mar. 3	473	116	54	1206
Stop-motion mechanism	I. W. Huckins	454,739	June 23	2369	609	55	1622
Stopper:							
See Boiler-tube stopper.	Expanding stopper.						
Bottle-stopper.	Flue-stopper.						
Bottle-seal stopper.							
Stopper	J. W. Carter	462,857	Nov. 10	1016	262	57	756
Stopper	F. S. Hume	466,169	Dec. 29	3477	888	57	1838
Stopping apparatus	F. Simonson	448,589	Mar. 17	2146	538	54	1545
Store-bin for sugar	H. D. Streater	458,643	Sept. 1	149	35	56	1095
Store-service apparatus	S. A. Bailey	462,906	Nov. 10	1095	{ 284 } 285	57	772
Store-service apparatus	J. M. Caille	467,293	Dec. 1	457	109	57	1222
Store-service apparatus	J. T. Cowley	452,473	May 19	1682	423	55	907
Store-service apparatus	J. T. Cowley	465,962	Dec. 29	3124	801	57	1769
Store-service apparatus	J. T. Cowley	465,963	Dec. 29	3127	802	57	1769
Store-service apparatus	W. I. Eichbaum	465,964	Dec. 29	3128	802	57	1770
Store-service apparatus	T. P. Farmer	455,315	July 7	27	7	56	8
Store-service apparatus	C. E. Foster	452,476	May 19	1687	424	55	908
Store-service apparatus	C. E. Foster	465,965	Dec. 29	3131	803	57	1770
Store-service apparatus	R. Gornall	465,966	Dec. 29	3132	803	57	1770
Store-service apparatus	J. R. Haight	447,178	Feb. 24	2760	682	54	1073
Store-service apparatus	D. Lippy	457,605	Aug. 11	1116	284	56	750
Store-service apparatus	R. A. McCarty	465,967	Dec. 29	3135	804	57	1771
Store-service apparatus	C. W. McCormick	455,903	July 14	975	{ 254 } 255	56	195
Store-service apparatus	J. Whittemore	444,680	Jan. 13	1094	{ 283 } 284	54	224
Store-service apparatus	H. D. B. Williams	459,261	Sept. 8	1117	273	56	1293
Store-service apparatus	H. D. B. Williams	461,398	Oct. 13	1341	338	57	267
Store-service apparatus	R. B. Wilson	454,793	June 23	2448	{ 629 } 630	55	1637
Store-service apparatus	E. P. Zerbe	458,029	Aug. 18	1812	472	56	890
Store-service apparatus. Buffer for	T. P. Farmer	452,474	May 19	1684	424	55	907
Store-service apparatus track	C. C. Rogers	457,609	Aug. 11	1121	286	56	751
Stove	F. L. Adams	460,192	Sept. 29	2592	646	56	1594
Stove	J. W. Calta	453,899	June 9	1099	287	55	1364
Stove	G. K. Chapman	457,433	Aug. 11	845	218	56	698
Stove	W. H. Clark and F. W. Collins	459,183	Sept. 8	1006	245	56	1267
Stove	E. B. Colby	449,929	Apr. 7	426	{ 106 } 107	55	83
Stove	A. G. Dee	456,357	July 21	1669	440	56	336
Stove	W. Forbes	455,613	July 7	510	132	56	98
Stove	C. O. Graves	449,218	Mar. 31	3142	792	54	1750
Stove	R. A. Grim	451,271	Apr. 28	2553	629	55	519
Stove	J. Werner	451,284	Apr. 28	2571	634	55	523
Stove. Air-heating	J. B. Oldersbaw	449,691	Apr. 7	69	17	55	16
Stove and fire-place. Combined	C. E. Wood	465,910	Dec. 29	3045	760	57	1755
Stove and radiator. Gas	T. H. Paul	463,282	Nov. 17	1686	440	57	895
Stove and water-back. Combined	W. C. Bucklin	455,528	July 7	365	93	56	72
Stove attachment	C. P. Johnson	451,935	May 12	761	192	55	729
Stove attachment	H. E. Squires	457,751	Aug. 11	1349	349	56	797
Stove attachment	D. Van Evera	457,963	Aug. 18	1706	{ 446 } 447	56	871
Stove attachment. Cooking	M. N. Cole	446,430	Feb. 17	1534	377	54	829
Stove-back. Adjustable	T. L. Bosart	445,421	Jan. 27	2291	594	54	474
Stove. Base-burner	S. Boal	462,617	Nov. 3	623	157	57	671
Stove-board	G. M. Richardson	461,876	Oct. 27	2172	536	57	439
Stove-boards. Machine for making	J. J. Sweeney	454,951	June 30	2757	{ 702 } 703	55	1700
Stove-boards. Machine for making paper-lined	J. J. Sweeney	450,764	Oct. 6	365	90, 91	57	72
Stove-boards. Manufacture of	J. J. Sweeney	461,137	Oct. 13	897	233	57	180
Stove. Broiling	A. J. Doty	447,50	Mar. 3	558	189	54	1262
Stove. Cook	J. J. Gould	452,603	May 19	1876	472	55	944
Stove. Cook	W. R. K. Stanford	464,123	Dec. 1	171	42	57	1169
Stove. Cooking	C. J. Edmunds	461,953	Oct. 27	2304	517	57	464
Stove. Cooking	M. N. Piedra	457,607	Aug. 11	1205	309	56	766
Stove. Cooking	A. W. Walker	447,548	Mar. 3	461	113	54	1204
Stove. Cooking and heating	J. Baker	446,413	Feb. 17	1506	371	54	823
Stove-drum	A. Glenn	451,375	Apr. 28	2691	668	55	546
Stove. Drum tubular sectional	G. E. Leonard and S. A. Stowe	456,960	Aug. 4	61	14	56	544
Stove. Electric cooking	J. V. Capek	462,532	Nov. 3	490	120	57	645
Stove. Feed-cooking	A. L. Montagne and H. S. Bailey	446,879	Feb. 24	2238	537	54	977
Stove for heating and lighting purposes	J. P. Myers	462,954	Nov. 10	1175	304	57	786
Stove for heating cars	R. F. Harris	446,517	Feb. 17	1671	407	54	856
Stove for heating purposes. Oil	B. F. Goodrich	459,531	Sept. 15	1558	388	56	1383
Stove. Gas	T. W. Ballard	465,911	Dec. 29	3047	780	57	1735
Stove. Gas	E. Bourne	448,747	Mar. 24	2424	606	54	1605
Stove. Gas	W. L. Cort	464,295	Dec. 1	467	{ 111 } 112	57	1223
Stove. Gas	C. H. Evans	448,579	Mar. 17	2127	{ 533 } 534	54	1542
Stove. Gas	G. W. Goetz and E. Rind	464,457	Dec. 1	688	169	57	1266
Stove. Gas	J. Goldstein and I. Block	450,933	Apr. 21	1986	487	55	401
Stove. Gas	P. J. Grinberg	449,776	Apr. 7	204	52	55	41
Stove. Gas	L. Kahn	465,023	Dec. 15	1601	{ 408 } 409	57	1461

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Stove. Gas.	L. Kahn and R. Christ.	464,688	Dec. 8	1055	263	57	1345
Stove. Gas.	C. W. McCutchen	444,056	Jan. 6	114	28	54	25
Stove. Gas.	A. C. Perry	465,199	Dec. 15	1898	481	57	1514
Stove. Gas.	J. N. Ruebhansen	464,182	Dec. 1	276	62	57	1187
Stove. Gas.	W. S. Wright	450,278	Apr. 14	948	235	55	188
Stove. Gas cooking.	J. Gibbons	462,923	Nov. 10	1132	293	57	778
Stove. Gas-cooking.	C. F. Spaulding	457,406	Aug. 11	805	207	56	690
Stove. Gasoline.	E. T. Burgess	465,341	Dec. 15	2134	547	57	1558
Stove. Heating.	G. B. Woodard	462,186	Oct. 27	2654	665	57	530
Stove. Hygienic.	F. W. Merriam	444,841	Jan. 20	1356	351	54	281
Stove. Lamp.	R. A. Hickox	462,132	Oct. 27	2570	639	57	514
Stove-leg attachment.	J. B. Morse	449,819	Apr. 7	269	69	55	53
Stove-lid and lifter.	E. Kubn	465,865	Dec. 29	2960	756	57	1738
Stove. Odorless gas.	W. B. O'Connor	459,111	Sept. 8	895	214	56	1947
Stove. Oil.	A. C. Barler	463,613	Nov. 24	2229	588	57	1008
Stove. Oil.	C. H. Boeck	453,853	June 9	1037	271	55	1353
Stove. Oil.	J. Goldstein and I. Block	444,748	Jan. 13	1205	313	54	244
Stove. Oil.	P. J. Grinberg	462,976	Nov. 10	1207	315	57	793
Stove. Oil.	W. Racer	455,356	July 7	89	26	56	21
Stove. Oil.	P. W. Strong	465,004	Dec. 15	1567	398	57	1454
Stove. Oil.	J. Van Alen and C. W. McCutchen.	444,059	Jan. 6	123	30	54	27
Stove. Oil.	L. T. Wilcox	449,343	Mar. 31	3368	849	54	1790
Stove. Oil.	L. T. Wilcox	451,964	May 12	805	204	55	739
Stove. Oil.	W. H. Wilder	462,936	Nov. 10	1152	299	57	782
Stove. Open-front.	L. Duemer	460,119	Sept. 29	2142	619	56	1573
Stove or furnace.	C. B. Gregory	462,079	Oct. 27	2478	615	57	497
Stove or furnace grate.	G. L. Walker and I. W. Harlow	460,710	Oct. 6	291	71	57	57
Stove or lamp. Oil.	W. H. Wilder	450,547	Apr. 14	1357	334	55	268
Stove or range.	G. A. Fisher	459,276	Sept. 2	1143	279	56	1295
Stove or range.	C. V. Roberts	449,918	Apr. 7	412	103	55	80
Stove or range door opening and closing mechanism.	C. H. Miller. (Reissue)	11,174	July 7	705	185	56	136
Stove-pipe.	J. Tocin	461,058	Oct. 13	795	203	57	160
Stove-pipe. Adjustable.	P. Bieler	458,994	Sept. 8	697	171	56	1209
Stove-pipe fastener.	F. A. Snow	447,168	Feb. 24	2745	679	54	1070
Stove-pipe-fitting tool.	E. D. Fisher	450,910	Apr. 21	1960	420	55	396
Stove-pipe former.	H. S. Grannis	458,683	Sept. 1	215	50	56	1106
Stove-pipe holder.	W. H. Schuster	459,658	Sept. 15	1775	446	56	1424
Stove-pipe thimble.	M. J. Fahey	464,609	Dec. 8	919	226	57	1321
Stove-pipe thimble.	E. G. West	419,060	Mar. 24	2894	734	54	1696
Stove-pipes. Soot-removing device for.	L. Eilbracht	450,784	Apr. 21	1759	427	55	358
Stove-polish.	R. T. Sargent and B. K. Gallup	454,296	June 16	1671		55	1484
Stove-polish.	E. Stahl	463,003	Nov. 10	1239		57	800
Stove. Regenerative hot-blast.	F. C. Roberts	462,730	Nov. 10	816	213	57	718
Stove. Reservoir cooking.	J. White	461,538	Oct. 20	1630	398	57	326
Stove-scrappers. Making.	A. M. McGee	455,441	July 7	227	58	56	46
Stove-shelf.	A. A. Gaston	446,115	Feb. 10	955	242	54	711
Stove-shelf.	J. J. Graves	456,000	July 14	1124	295	56	222
Stove. Slow-combustion.	A. S. Tomkins	452,532	May 19	1767	445	55	923
Stove-top.	P. Haerst.	445,729	Feb. 3	351	91	54	581
Stove. Vapor.	C. M. Hollingsworth	448,652	Mar. 24	2265	568	54	1514
Stove. Vapor.	J. A. Marsh	454,014	June 9	1259	327	55	1397
Stove. Vapor.	L. Stockstrom	462,174	Oct. 27	2628	655	57	526
Stove. Water-back gas cooking.	H. Ruppel	419,179	Mar. 31	3085	778	54	1740
Stoves. Box or casing for street-car.	J. Spear	449,008	Mar. 24	2817	713	54	1680
Stoves. Chill-core for molding leg-sockets for.	J. McDermott and L. Kahn	453,373	June 2	298	78	55	1203
Stoves. Construction of.	E. D. Nellis	456,223	July 21	1448	383	56	294
Stoves. Cooking, toasting, and shielding device for.	I. Smith	447,373	Mar. 3	158	44	54	1147
Stoves. Detachable heating-drum for.	E. T. McCabe	450,635	Apr. 21	1542	370	55	317
Stoves. Oil-feeding device for vapor.	C. M. Hollingsworth	448,236	Mar. 17	1572	401	54	1436
Stoves. Oil-tank for vapor.	G. W. Billings and B. P. Kenyon	464,953	Dec. 15	1463	368	57	1434
Stoves or furnaces. Air heating and ventilating apparatus for.	J. A. Kirkpatrick	452,105	May 12	1067	270	55	783
Stoves or ranges. Oven-bottom for.	C. B. Coon	466,070	Dec. 29	3322	848	57	1808
Stoves or ranges. Oven-bottom plate for.	D. G. Littlefield	457,403	Aug. 11	800	206	56	689
Stoves. Starter for vapor.	C. M. Hollingsworth	451,050	Apr. 24	2184	539	55	447
Stoves. Vessel holder or support for lamp.	C. E. Duryea	452,897	May 26	2346	393	55	1044
Stoves. Water-heater for gas or vapor.	C. J. Edmonds and A. C. Mason	460,703	Oct. 6	222	68	57	55
Stoves. Wick-tube for lamp.	J. H. White	452,927	May 26	2393	605	55	1052
Straightening and bending machine.	G. B. Tennant	452,960	May 26	2453	619	55	1065
Strainer.	F. I. Maule	444,246	Jan. 6	430	108	54	84
Strainer. Adjustable.	A. J. Devoll	462,076	Oct. 27	2474	614	57	496
Strainer. Coffee or tea.	H. Hennig	416,680	Feb. 17	1916	477	54	903
Strainer. Milk.	C. C. Daly	452,264	May 12	1323	331	55	832
Strainer. Milk.	I. Heimbach	453,081	May 26	2653	669	55	1103
Strainer or filter. Water.	B. R. Chew	453,547	June 2	577	147	55	1257
Stranding and band-twisting machine.	W. H. Naylor	451,569	May 5	185	45	55	615
Strap.							
See Bill-strap.	Hitching-strap.						
Box-strap.	Hose-strap.						
Car-strap.	Parcel-strap.						
Car hand-strap.	Shawl-strap.						
Corner-strap.	Trunk-strap.						
Strap.	E. B. Stimpson	447,917	Mar. 10	1064	266	54	1326
Strap and buckle shield.	G. H. Nicholls	447,158	Feb. 24	2733	676	54	1067
Strap fastener. Trunk.	W. J. Webb	465,225	Dec. 15	1933	492	57	1322
Strap-trimming machine.	G. Steinbach	465,893	Dec. 29	3021	772	57	1750
Strap-trimming tool.	H. F. Osborne	444,012	Jan. 6	46	13	54	12
Straw-board. Machine for pasting and uniting sheets of.	C. Seybold and C. Whealen	453,567	June 2	605	154	55	1262

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Straw-burner	W. H. Harris	462,945	Nov. 10	1162	301	57	784
Straw-carriers. Hood for thrasher	A. B. Reeves	459,369	Sept. 8	1287	317	56	1324
Straw, cornstalks, &c. Means for burning	G. B. Field	463,249	Nov. 17	1637	427	57	886
Straw-conveyer	M. Sheller	452,806	May 26	2198	552	55	1016
Straw-cutter	H. H. Kendrick	455,105	June 30	3036	771	55	1755
Straw-cutter attachment	H. H. Kendrick	451,056	Apr. 28	2192	{ 541 542 }	55	449
Straw-stacker	M. and C. Heineke	465,371	Dec. 15	2186	{ 560 561 }	57	1568
Straw-stacker	S. Murphy	460,153	Sept. 29	2538	633	56	1583
Straw-stacker	J. Oneill	453,091	May 26	2670	{ 673 674 }	55	1107
Straw-stacker	A. A. Russell	460,889	Oct. 6	550	139	57	108
Straw-stacker	L. N. Savaria	459,050	Sept. 8	793	{ 191 192 }	56	1227
Straw-stacker	J. M. Smith	446,955	Feb. 24	2363	588	54	999
Straw-stacker	O. Stage	444,732	Jan. 13	1182	{ 305 306 }	54	240
Straw-stacker attachment	S. G. Scholz	461,899	Oct. 27	2207	544	57	446
Straw-stacker. Automatic swinging	M. H. and A. V. Pitts	455,355	July 7	86	26	56	21
Street and station indicator. Electrical	F. H. Soden	448,378	Mar. 17	1822	{ 459 460 }	54	1483
Street-cleaning machine	L. M. Jourdan	453,425	June 2	399	{ 103 104 }	55	1222
Street-cleaning machine	H. R. Wolfe	448,900	Mar. 24	2657	667	54	1649
Street-cleaning machine	J. W. Wood	452,153	May 12	1148	290	55	798
Street or station indicator	W. T. Suedden	456,006	July 14	1131	297	56	223
Street-sprinkler	J. W. Nesmith and J. H. Morcom	453,889	June 9	1088	{ 284 285 }	55	1362
Street-sprinkler. Adjustable fan-nozzle	H. W. Peters	455,723	July 7	690	182	56	133
Street-sprinklers. Nozzle for	F. E. Bowman	464,550	Dec. 8	836	206	57	1303
Street-sweeper	G. Focht, Jr.	464,353	Dec. 1	548	134	57	1238
Street-sweeper	M. T. Gordon	451,723	May 5	428	104	55	660
Street-sweeper	W. H. Sterling	454,144	June 16	1444	378	55	1439
Street-sweeper	G. M. Warfel	461,556	Oct. 20	1655	{ 404 405 }	57	332
Street-sweeper	A. J. Whittier	446,046	Feb. 10	877	214	54	691
Street-sweeper and excavator. Combined	C. H. La Due	460,476	Sept. 29	3023	757	56	1676
Street-sweeping machine	C. C. Anderson	457,693	Aug. 11	1241	318	56	774
Street-sweeping machine	W. C. Auberlin	444,683	Jan. 13	1111	{ 284 285 }	54	225
Street-sweeping machine	M. Hagarty	457,586	Aug. 11	1087	{ 277 278 }	56	744
Street-sweeping machine	C. H. Morgan	452,382	May 19	1520	377	55	879
Street-sweeping machine	T. C. Myers	457,746	Aug. 11	1342	{ 347 348 }	56	796
Street-sweeping machine	S. M. Skirving and A. J. B. Berger	444,025	Jan. 6	66	18	54	16
Street-sweeping machine	A. H. Smith	447,528	Mar. 3	435	107	54	1199
Street-sweeping machine	A. R. Weber	454,533	June 23	2044	529	55	1561
Street-washer box	G. W. Aldrich	447,503	Mar. 3	394	96	54	1192
Stretcher for ambulances. Folding	A. Brew	456,547	July 28	1897	524	56	404
Stretcher-spring	W. H. Penwell and W. H. Gault	463,288	Nov. 17	1694	443	57	896
Stretching-machine	W. Coupe	464,794	Dec. 8	1321	304	57	1377
Striker-out and plant-spacer. Combined	S. C. Ball	457,928	Aug. 18	1653	432	56	860
Striking-bag	H. B. Cook	445,747	Feb. 3	382	97	54	588
Striking-machine. Coin-controlled	H. Cooper	454,256	June 16	1605	422	55	1471
Striking-machine. Coin-controlled indicating	C. J. Means	447,890	Mar. 10	1011	255	54	1316
Stringed instrument	C. Gimbel	460,863	Oct. 6	501	128	57	99
Stringed instrument	C. S. Weber	462,645	Nov. 3	666	168	57	679
Stringed instruments. Finger-board for	H. C. Middlebrooke	463,954	Nov. 24	2764	716	57	1109
Stringed instruments. Tuning mechanism for	F. G. Faxon	450,808	Apr. 21	1801	437	55	366
Stringed instruments. Tuning-peg for	F. L. Becker	464,003	Dec. 1	4	2	57	1137
Stub-holder. Adjustable	H. W. Field and H. A. Fowler	444,429	Jan. 13	703	184	54	147
Stud. Machine	B. Piers	458,186	Aug. 25	2043	530	56	943
Stud or rivet setting machine	J. F. Crudginton and E. E. Norton	453,423	June 2	391	{ 101 102 103 }	55	1221
Stuff-gates. Mechanism for operating	A. A. Kellogg	444,555	Jan. 13	908	236	54	189
Stuffing-box	N. Dudoire	464,935	Dec. 8	1412	356	57	1414
Stuffing-box	C. G. Mayer	450,518	Apr. 14	1324	355	55	261
Stuffing-box for piston-rods	E. Hill	444,668	Jan. 13	1076	279	54	220
Stuffing-box for steam-hammers	T. H. Mirkil, Jr.	447,340	Mar. 3	97	26	54	1136
Stuffing-boxes. Substitute for	J. Thomson and F. Lambert	452,454	May 19	1697	427	55	910
Stuffing-wheel	G. Hulsemann	461,019	Oct. 13	739	191	57	151
Stump-extractor	C. E. Bassett	454,107	June 16	1389	363	55	1498
Stump-extractor	J. Cornelius	452,215	May 12	1246	315	55	817
Stump-extractor	F. W. Gruellich	449,041	Mar. 24	2263	728	54	1690
Stump-extractor	L. Kring and J. Baughman	445,676	Feb. 3	270	71	54	566
Stump-extractor	B. Montross	446,224	Feb. 10	1177	288	54	745
Stump-extractor	J. M. Shoemaker	458,696	Sept. 1	233	55	56	1110
Stump-extractor	G. W. Smeal	453,051	May 26	2596	656	55	1092
Stump-extractor	W. Smith	457,798	Aug. 18	1425	{ 369 370 }	56	818
Stump-puller	H. J. Mohme	457,054	Aug. 4	180	45	56	568
Stump-puller	W. B. Morris	449,858	Apr. 7	327	84	55	65
Stump-puller	W. B. Morris	457,092	Aug. 4	250	65	56	581
Stump-puller	W. Smith	449,596	Mar. 31	3783	949	54	1869
Stump-puller	R. S. Warren and W. A. Easley	445,460	Jan. 27	2342	609	54	483
Stump-puller spool	T. C. Cunningham and L. A. Funk	449,207	Mar. 31	3129	789	54	1748
Styptic remedy	R. W. Black	458,738	Sept. 22	1903	.....	56	1455
Subaqueous structures. Construction of	R. Hunt	457,438	Aug. 11	849	220	56	699
Submarine battery. Movable	R. Macdonald	458,473	Aug. 25	2528	615	56	1032
Submerged heater	D. Stutzman	462,107	Oct. 27	2536	630	57	508
Subsoil-pipe	M. Rehm	453,502	June 2	513	132	55	1245

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Sucker-rod elevator	S. Clover	444,332	Jan. 6	547	142	54	109
Sucker-rod elevator	L. Vaughan	456,071	July 14	1221	321	56	240
Sugar. Apparatus for lixiviating	C. Steffen	449,976	Apr. 7	493	123	55	96
Sugar. Apparatus for the defecation of saccharine juices by electricity in the manufacture of	E. Maigrot and J. Sabates	455,631	July 7	537	140 141	56	104
Sugar. Apparatus for the manufacture of	L. E. A. Prangey	452,062	May 12	984	250 251	55	770
Sugar from molasses. Extracting	M. F. E. Mahoudeau	452,454	May 19	1640		55	901
Sugar from saccharine materials. Apparatus for extracting	G. E. Patrick	449,747	Apr. 7	160	39, 40	55	32
Sugar. Manufacture of	G. Adant	444,107	Jan. 6	199	49	54	41
Sugar. Manufacture of refined	L. E. A. Prangey	452,063	May 12	988	251	55	770
Sugar. Purification and manufacture of	M. Weinrich	455,675	July 7	604		56	118
Sugar-scum. Extracting juice from	A. Hamelberg	462,095	Oct. 27	2503		57	502
Sugar sirups. Apparatus for the manufacture of	J. J. Wilson	463,564	Nov. 17	2137	565	57	982
Sugar-washing apparatus	R. F. Cordero	456,799	July 28	2405	634	56	483
Suint. Purifying	I. Ross	451,642	May 5	306		55	637
Sulkies. Weight-pocket for	T. J. McMurray and O. A. Busard	462,575	Nov. 3	562	137	57	659
Sulky	W. D. Harper	456,565	July 28	2012	532	56	408
Sulky	H. C. Hill	455,987	July 14	1102	290	56	218
Sulky	J. W. Kelley	449,542	Mar. 31	3695	929	54	1853
Sulky	H. B. Paul	444,921	Jan. 20	1529	393	54	314
Sulky	G. E. Tripp	445,758	Feb. 3	401	102	54	592
Sulky	S. C. Wharton	455,781	July 14	791	207	56	161
Sulphides. Smelting	W. L. Austin	453,529	June 2	550	141	55	1251
Sulphite-lye. Apparatus for making	A. Wendler and J. Spiro	446,652	Feb. 17	1869	464	54	895
Sulphur. Apparatus for mining	H. Frasch	461,430	Oct. 20	1392	352	57	284
Sulphur-furnace	C. H. Fish	451,651	May 5	317	77	55	639
Sulphur. Mining	H. Frasch	461,429	Oct. 20	1389	351	57	283
Sulphur. Mining	H. Frasch	461,431	Oct. 20	1396	352 353	57	284
Sun's rays for heating water. Apparatus for utilizing the	C. M. Kemp	451,384	Apr. 28	2706	672	55	549
Supporter:							
See Abdominal sup- porter.	Garment-supporter.						
Athlete's supporter.	Hose-supporter.						
Curtain-pole sup- porter.	Pantaloon-supporter.						
Dress-supporter.	Surgical foot-supporter.						
Supporting and locking device. Automatic	Trough-supporter.						
Supporting-lock. Automatic	Uterine supporter.						
Suppository.	J. H. Morgan, Jr.	455,547	July 7	401	105	56	78
Suppository-machine	J. A. Lounsbury	448,970	Mar. 24	2758	696	54	1669
Suppository-mold	E. G. Eberhardt	445,984	Feb. 10	776	190	54	674
Suppository-mold	A. G. Wood and F. E. Howarth	460,620	Oct. 6	120	31	57	26
Surcingle	H. C. Archibald and J. F. Snediker	452,743	May 19	2101	528	55	988
Surface-gage	E. L. Cushing	448,133	Mar. 10	1394	356	54	1394
Surface-gage	H. Ellsworth	460,746	Oct. 6	344	84	57	68
Surface-gage	G. E. Neubert	448,863	Mar. 24	2608	635	54	1639
Surgeon's knife	F. A. Welles	444,865	Jan. 20	1428	372	54	295
Surgeon's operating-chair	C. H. Truax	459,056	Sept. 8	801	193 194	56	1228
Surgical apparatus	R. B. Roberts, W. D. Allison, and C. N. Leonard	452,389	May 19	1530	379 380	55	880
Surgical bandages, &c. Device for filling	W. M. Lottridge	458,774	Sept. 1	340	82	56	1131
Surgical chair	N. R. Allen	462,974	Nov. 10	1205	314	57	793
Surgical electrode	A. P. Gould	453,184	June 2	11	3, 4	55	1151
Surgical explorer	J. H. Gunning	452,220	May 12	1254	317	55	819
Surgical foot-supporter	F. K. Hesse	448,150	Mar. 10	1419	362	54	1397
Surgical instrument	A. G. Gevert	454,342	June 16	1735	452	55	1496
Surgical instrument	T. W. Bangh	460,940	Oct. 13	627	161	57	129
Surgical instrument	J. S. Chase	465,161	Dec. 15	1839	467	57	1503
Surgical instrument	L. Olivieri	460,987	Oct. 13	696	180	57	142
Surgical instrument	C. H. Truax	450,266	Apr. 14	929	230	55	185
Surgical instrument. Electrical	F. L. Connable and T. V. Harper	463,785	Nov. 24	2490	650	57	1056
Surgical-needle holder	O. A. Hoeller	453,698	June 9	824	209	55	1312
Surgical pump	W. C. Carroll and B. F. Hales	444,690	Jan. 13	1109	227	54	227
Surgical pump	B. F. Hales	459,002	Sept. 8	707	173	56	1212
Surgical pump	C. H. Truax	459,053	Sept. 8	797	192	56	1228
Surgical pump	C. H. Truax	459,054	Sept. 8	799	193	56	1228
Surgical pump	C. H. Truax	459,055	Sept. 8	800	193	56	1228
Surgical purposes. Electrical apparatus for	C. B. Harness	453,476	June 2	473	122 123	55	1238
Surgical splint	E. R. Ellis	458,804	Sept. 1	382	92	56	1139
Surveying-instrument	J. N. Gee	445,886	Feb. 3	611	151	54	632
Surveyor's plotting-instrument	P. O'Marra	446,882	Feb. 24	2243	558	54	978
Surveyor's transit	J. A. Brown	460,909	Oct. 6	584	148	57	114
Suspender-clasp	A. Bernstein	456,465	July 21	1855	490	56	370
Suspender-clasp	C. R. Harris	444,353	Jan. 6	577	148	54	115
Suspender-clasp	C. R. Harris	448,519	Mar. 17	2039	510	54	1524
Suspender-clasp	C. R. Harris	451,046	Apr. 28	2180	538	55	446
Suspender-clasp	C. R. Harris. (Reissue)	11,187	Sept. 1	692	169	56	1201
Suspender-end	S. Clawson	457,448	Aug. 11	867	225	56	702
Suspender-fastening	H. A. Hayden	447,876	Mar. 10	993	251	54	1313
Suspender-hook	E. R. Dobbs	452,217	May 12	1250	316	55	818
Suspenders	E. Altman	455,959	July 14	1063	279	56	211
Suspenders	A. J. Bobbs	453,074	May 26	2641	666	55	1101
Suspenders	J. T. Brodnax	455,158	June 30	3129	795	55	1772
Suspenders	H. N. Elliott and E. L. Bemis	452,667	May 19	1275	495	55	964
Suspenders	E. Gutmann	445,553	Feb. 3	40	11	54	519
Suspenders	E. H. Lieberthal	464,822	Dec. 8	1342	337	57	1401
Suspenders	A. S. Maan	455,409	July 7	182	47	56	38
Suspenders	F. H. Richards	446,840	Feb. 17	2161	537	54	954
Suspenders	W. W. Rosenfield	459,020	Sept. 8	742	180	56	1217

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Suspenders	W. J. Stewart	449,141	Mar. 31	3026	765	54	1729
Suspenders	E. J. Tourné	453,796	June 9	975	254	55	1341
Suspenders	T. E. Webber	465,790	Dec. 22	2837	727	57	1705
Suspenders. Device adapted for the attachment of	C. Dunham	458,544	Aug. 25	2638	642	56	1055
Suspending device	J. I. Johnson	455,878	July 14	938	246	56	189
Suspension apparatus	I. Bushong	445,658	Feb. 3	228	62	54	557
Suspensory bandage	T. W. Heinemann	454,168	June 16	1482	389	55	1446
Suture-instrument	D. S. McConaughy	462,270	Nov. 3	78	19	57	566
Swaging and pointing. Machine for	A. J. Langelier	462,440	Nov. 3	355	87	57	618
Sweat-pad	H. Ryburn	456,065	July 14	1212	319	56	239
Sweat-pad	A. Scott	464,258	Dec. 1	401	96	57	1210
Sweat-pad fastener	E. F. Pfueger	451,762	June 23	2401	616	55	1629
Sweat-pad fastener	C. H. Wentz	445,590	Feb. 3	114	29	54	533
Sweat-pad fastening	E. F. Pfueger	448,071	Mar. 10	1306	334	54	1374
Sweeper	O. D. Thompson and H. F. Smith	447,381	Mar. 3	170	46	54	1150
Sweeping-machine	J. S. Goodnow	451,927	May 12	750	190	55	727
Swimming apparatus	J. G. Eisele	465,657	Dec. 22	2650	675	57	1667
Swimming device	H. A. Farnam	460,333	Sept. 29	2817	701	56	1638
Swimming-machine	J. Malo	466,007	Dec. 29	3225	822	57	1787
Swing	I. S. Bunker	461,541	Oct. 20	1633	399	57	327
Swinging chair	J. M. Eller	465,017	Dec. 15	1588	405	57	1458
Swinging chair	C. Johnson	457,085	Aug. 4	243	62	56	579
Swinging chair	J. B. Johnson	463,863	Nov. 24	2624	683	57	1082
Swinging gate	J. R. Davis	461,999	Oct. 27	2366	586	57	476
Swinging gate	J. W. Gorham	447,819	Mar. 10	894	223	54	1294
Swinging gate	J. W. Gorham	457,852	Aug. 18	1515	394	56	835
Swinging gate	C. Z. Husel	450,233	Apr. 14	881	219	55	176
Swinging gate	T. J. Sausaman	450,749	Apr. 21	1701	411	55	348
Swinging gate	W. R. White	461,061	Oct. 13	798	204	57	160
Swinging gate. Adjustable balanced	E. Green	450,724	Apr. 21	1668	402	55	341
Switch:							
See Automatic switch. Electrical switch.							
Car-switch. Electrical safety-switch.							
Double-contact switch. Electro-magnetic switch.							
Electric switch. Interchangeable switch.							
Electric circuit switch. Interlocking switch.							
Electric switch. Limit-switch.							
Electric switch. Loop-switch.							
Electric line switch. Motor-switch.							
Electric locked switch. Railway-switch.							
Electric motor switch. Rheostatic switch.							
Electric snap-switch. Safety-switch.							
Electric starting-switch. Signaling-switch.							
Electric switch. Snap-switch.							
Electric starting-switch. Spring-jack switch.							
Electric switch. Tramway-switch.							
Electric subway-switch. Trolley-switch.							
Switch	S. Bergmann	457,572	Aug. 11	1065	272	56	741
Switch	M. N. Jones	444,220	Jan. 6	389	97	54	78
Switch	W. A. Lee	455,838	July 14	884	232	56	178
Switch	S. T. Mock	457,839	Aug. 18	1489	388	56	831
Switch	W. J. Tracy	451,214	Apr. 28	2449	605	55	498
Switch	F. C. Weir and N. O. Goldsmith	458,436	Aug. 25	2471	601	56	1022
Switch and cut-out device	H. P. Ball	462,463	Nov. 3	390	96	57	625
Switch and lightning-arrester. Combined	E. W. Rice, Jr.	451,521	May 5	113	23	55	601
Switch and signal apparatus	G. Servetaz	466,190	Dec. 29	3507	896	57	1843
Switch and signal apparatus	G. Westinghouse, Jr., and J. G. Schreuder	446,159	Feb. 10	1065	263	54	725
Switch and signal apparatus. Hydraulic	J. A. Zinn	449,240	Mar. 31	3174	801	54	1757
Switch-board. Electrical	J. B. Lyon	449,625	Apr. 7	55	14	55	12
Switch-boards. Fastener for spring-jacks of	C. E. Scribner	459,711	Sept. 15	1852	465	56	1440
Switch-box	H. A. Foster	461,239	Oct. 13	1082	273	57	216
Switch-chair	W. H. Phillips	464,732	Dec. 8	1128	279	57	1358
Switch for overhead tracks	J. Bouchard	459,437	Sept. 15	1409	352	56	1356
Switch-frog. Safety	D. MacPherson	465,531	Dec. 22	2447	623	57	1629
Switch-indicator. Automatic electric	E. W. Hadley	460,864	Oct. 6	503	128	57	99
Switch-lock	C. W. Hunt and C. C. King	451,485	May 5	61	15	55	591
Switch-lock. Self-acting	M. McGrath	457,999	Aug. 18	1762	462	56	881
Switch-operating device	N. Newman	463,580	Nov. 17	2166	572	57	987
Switch-operating mechanism	J. F. Batchelor, 2d	457,178	Aug. 4	378	97	56	605
Switch-operating mechanism	J. N. and C. F. Duval	444,426	Jan. 13	699	182	54	146
Switch-shifter	E. D. Stewart	453,250	June 2	110	30	55	1169
Switch-stand	H. M. Abernethy	463,413	Nov. 17	1912	499	57	937
Switch-stand	W. A. Bock	447,424	Mar. 3	245	62	54	1163
Switch-stand	V. J. Goetz	463,038	Nov. 10	1290	335	57	810
Switch-stand	N. O. Goldsmith	458,452	Aug. 25	2491	606	56	1026
Switch-stand	J. A. Johnson	451,403	Apr. 28	2736	678	55	555
Switch-stand	J. B. Saffern and W. C. Kidd	463,007	Nov. 10	1245	324	57	801
Switch-stand	J. H. Wallace	449,017	Mar. 24	2826	716	54	1682
Switch stand and lock	Q. J. Hoke and J. R. Warren	460,535	Sept. 29	3135	783	56	1700
Switch tongue adjuster	I. Mowder	449,558	Mar. 31	3717	933	54	1857
Switches. Foot-guard for	J. H. Pfieger	463,074	Nov. 10	1354	350	57	823
Swivel	H. E. Kelley	449,324	Mar. 31	3334	841	54	1784
Swivel-hook	J. A. Bartlett	464,291	Dec. 1	455	109	57	1221
Swivel-hook	E. L. Robinson	452,320	May 12	1417	351	55	849

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Swivel-joint.....	A. Ball.....	457,503	Aug. 11	963	244	56	719
Swivels. Machine for the manufacture of wrought-metal.....	G. Van Wagenen.....	453,751	June 9	900	234	55	1326
Syringe.....	J. C. Beekman.....	453,322	June 2	221	58	55	1189
Syringe.....	C. B. Dickinson.....	455,939	July 14	1029	269	56	205
Syringe.....	H. G. Leisenring.....	445,813	Feb. 3	508	122	54	611
Syringe.....	F. A. Reichardt.....	458,253	Aug. 25	2159	529	56	965
Syringe.....	E. Schirmer.....	446,125	Feb. 10	1006	248	54	715
Syringe.....	F. T. Van Woert.....	455,371	July 7	111	31	56	25
Syringe. Electro-therapeutic.....	E. Bartsch.....	449,651	Mar. 31	3884	972	54	1887
Syringe shut-off.....	W. J. Ellis.....	455,392	July 7	152	39	56	32
Syringe. Siphon.....	A. T. Holt.....	455,402	July 7	165	42	56	35
Syringe-tube sinker.....	D. B. Martin.....	447,574	Mar. 3	499	123	54	1211
Syringe. Vaginal.....	J. W. Haughawout.....	452,222	May 12	1257	{ 317 318 }	{ 55 55 }	820
Syringe. Vaginal.....	L. E. Hendrickson.....	458,457	Aug. 25	2497	607	56	1027
Syringe. Vaginal.....	E. Jeanjaquet.....	454,022	Aug. 18	1797	469	56	887
Syringe. Vaginal.....	L. D. McIntosh.....	447,410	Mar. 3	228	59	54	1160
Syringe. Vaginal.....	G. A. Ogrisssek.....	462,988	Nov. 10	1223	318	57	796
Syringe. Vaginal.....	W. E. Weldon.....	457,176	Aug. 4	376	96	56	605
Syringes. Piston for.....	A. Molinari.....	449,883	Apr. 7	357	90	55	71
Table.....							
See Adjustable table. Inclining table.							
Billet-receiving table. Invalid-table.							
Billiard-table. Ironing-table.							
Board or game table. Knockdown table.							
Brick and tile cutting table. Operating-table.							
Brick or tile table. Pool-table.							
Card-table. Portable table.							
Center and invalid's table. Revolving table.							
Drawing or cutting table. Rolling-mill feed-table.							
Extension-table. Self-waiting table.							
Folding table. Show-table.							
Game-table. Stareb-table.							
Grape-trimming and packing table. Telegraph-table.							
Table.....	J. S. Borden.....	444,191	Jan. 6	349	85	54	70
Table.....	E. W. Clark.....	452,117	May 12	1087	{ 276 277 }	{ 55 55 }	787
Table.....	J. A. Meyer.....	451,946	May 12	776	197	55	733
Table.....	P. Muntz.....	456,052	July 14	1196	314	56	236
Table.....	C. G. Udell.....	454,508	June 23	2004	519	55	1554
Table.....	S. Willershausen.....	458,962	Sept. 1	643	157	56	1191
Table.....	F. E. Wood.....	458,930	Sept. 1	599	147	56	1181
Table and folding bed. Combined.....	A. C. Feron.....	462,430	Nov. 3	343	84	57	616
Table and wash-stand. Combined.....	J. Penney.....	464,106	Dec. 1	149	37	57	1165
Table frame. Knockdown.....	F. W. Goedeke.....	456,377	July 21	1714	454	56	344
Table-knife.....	C. Kelley.....	465,138	Dec. 15	1808	457	57	1497
Table-knife.....	W. W. Lee.....	458,632	Sept. 1	130	29	56	1091
Table-leaf support.....	L. G. Cash.....	447,758	Mar. 10	779	193	54	1273
Table-leaf support.....	P. A. Ecklund.....	466,005	Dec. 29	3223	821	57	1787
Table-leaf support.....	C. K. Olson.....	463,915	Nov. 24	2711	704	57	1098
Table-leg. Shaft-bearing.....	S. Arnold.....	446,576	Feb. 17	1754	432	54	873
Table or stand cover.....	F. E. Waring.....	464,840	Dec. 8	1281	321	57	1389
Table-ware. Holder for articles of.....	O. C. Amyot.....	457,101	Aug. 4	262	68	56	583
Tablet. Message.....	C. G. Molin.....	453,711	June 9	846	219	55	1315
Tablet ornament.....	L. B. Prahar.....	447,622	Mar. 3	573	142	54	1225
Tablet. Roller.....	J. Murray.....	465,385	Dec. 15	2206	566	57	1572
Tablet. Roller.....	H. T. Wilson.....	466,067	Dec. 29	3318	847	57	1807
Tablets from powders. Machine for compressing.....	J. P. MacLearn.....	461,683	Oct. 20	1253	460	57	369
Tachometer. Magnetic.....	J. Waring.....	446,488	Feb. 17	1621	397	54	847
Tack blank. Staple.....	W. I. Ludlow.....	450,246	Apr. 14	909	225	55	181
Tack draw and set. Combined.....	J. Scott.....	461,688	Oct. 20	1863	461	57	371
Tack-drawing implement.....	J. Reid, Jr.....	456,679	July 28	2205	584	56	447
Tack-driver.....	H. H. and J. S. Barnes.....	444,685	Jan. 13	1103	285	54	226
Tack-driving machine.....	J. E. Crisp and G. W. Copeland.....	446,631	Feb. 17	1830	453	54	887
Tack-driving machine.....	J. E. Crisp and G. W. Copeland.....	455,174	June 30	3161	802	55	1779
Tack-driving machine.....	J. H. Haskins.....	453,175	May 26	2837	{ 711 712 }	{ 55 55 }	1136
Tack-driving machine.....	M. G. Mains.....	450,027	Apr. 7	564	141	55	109
Tack-driving machine.....	D. B. Nye and G. W. Copeland.....	464,200	Dec. 1	303	74	57	1191
Tack-head. Cloth-covered.....	C. M. Platt.....	465,289	Dec. 15	2041	521	57	1541
Tack-puller.....	M. A. Sheldon.....	466,066	Dec. 29	3317	847	57	1807
Tack-puller.....	C. H. Slocum.....	463,817	Nov. 24	2538	662	57	1066
Tack-pulling machine. Lasting.....	W. Gordon and A. E. Perry.....	459,202	Sept. 8	1032	252	56	1272
Tack setter and hammer.....	H. J. Lewis.....	462,565	Nov. 3	548	133	57	656
Tack-strip-making machine.....	M. Brock.....	453,141	May 26	2750	693	55	1122
Tacking-machine.....	J. E. L. Bradeen.....	451,995	May 12	854	{ 218 219 }	{ 55 55 }	748
Tacking-machine.....	C. Sinning.....	456,226	July 21	1463	{ 388 389 }	{ 56 56 }	296
Tacking-machine.....	J. P. Smith.....	445,322	Jan. 27	2146	{ 555 556 }	{ 54 54 }	444
Tag.....	H. Baumgarten.....	444,739	Jan. 13	1196	309	54	242
Tag.....	A. C. North.....	445,731	Feb. 3	353	92	54	582
Tag and parcel tyer.....	W. H. Anderson.....	454,105	June 16	1386	363	55	1428
Tag-attaching machine.....	E. G. Cohen.....	452,097	May 12	1054	267	55	780
Tag. Clipping.....	F. W. Hayes.....	458,169	Aug. 25	2022	524	56	939
Tag-fastener.....	W. R. Deau and W. H. Barnett.....	445,441	Jan. 27	2315	601	54	478

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Di. g.	Vol.	Page.
Tag-fastener	M. Isaacs	447,688	Mar. 3	660	163	54	1243
Tag-fastener	P. J. Schreiber	444,371	Jan. 6	608	156	54	120
Tag. Key.	E. W. Hall	460,865	Oct. 6	507	129	57	100
Tag making and printing machine	W. P. Kidder	452,076	May 12	1016	255 256 257	55	774
Tag. Marking.	F. Kohnle	457,783	Aug. 18	1397	363	56	813
Tag-wiring machine	A. R. Tiffany	444,403	Jan. 6	659	170 171	54	130
Talking-board	C. W. Kennard	462,810	Nov. 10	952	248	57	745
Tally-sheet	F. W. Barrett	460,518	Sept. 29	3104	776	56	1693
Tally-sheet	M. E. Stockwell	445,508	Jan. 27	2415	630	54	496
Tan-bark. Apparatus for making extracts from	J. and W. N. Hutchings	444,068	Jan. 6	141	35	54	21
Tan-bark from vats. Elevator for removing	J. H. Snell	452,509	May 19	1731	436	55	916
Tan-presses. Feeding attachment for	A. F. Jones	451,304	Apr. 28	2596	640	55	528
Tank:							
<i>See</i> Fish-tank.	Gas and oil tank.						
Flush-tank.	Measuring-tank.						
Flushing-tank.	Water-tank.						
Tanks or reservoirs. Feeder for	W. S. Griffith	447,406	Mar. 3	221	57	54	1159
Tanks or reservoirs. Feeder for	W. S. Griffith	447,407	Mar. 3	222	58	54	1159
Tannin solutions by electrolysis. Purifying	A. Foelsing	462,694	Nov. 10	755	.....	57	705
Tanning	H. Churchill	459,993	Sept. 22	2285	.....	56	1528
Tanning	R. W. Turner	461,108	Oct. 13	862	.....	57	173
Tanning	J. H. McWhirter, G. W. Langley, and J. B. Upton.	451,385	Apr. 28	2707	.....	55	549
Tanning composition	J. T. Smith and J. W. Copeland.	453,295	June 2	176	.....	55	1181
Tanning material	W. Dieterle	450,998	Apr. 21	2105	.....	55	423
Tanning process	W. E. Hedges	447,427	Mar. 3	250	.....	54	1164
Tanning. Process of and composition for	C. B. Warrand	450,121	Apr. 7	695	.....	55	136
Tap-wrench	A. E. Brion	464,659	Dec. 8	1002	250	57	1336
Tap-wrench	A. J. Smart	455,859	July 14	910	238	56	183
Tape. Woven	C. C. Hoyt	445,141	Jan. 20	1872	484	54	381
Tapered and pointed nail	T. W. Porter	464,144	Dec. 1	205	49	57	1175
Tappet	W. N. Nolan	444,649	Jan. 13	1041	271	54	214
Tapping and thread-cutting machine	H. C. Bradford	465,827	Dec. 29	2898	743 744	57	1727
Tapping apparatus	P. G. Hernance	459,138	Sept. 8	933	224	56	1255
Tapping device	H. B. Pullman	461,800	Oct. 20	2053	506	57	406
Tapping device	J. H. Rathbun	445,615	Feb. 3	152	40	54	541
Tapping mains. Apparatus for	A. P. Smith	455,890	July 14	957	250	56	192
Tapping mains. Device for	M. P. Madden	459,638	Sept. 15	1748	439	56	1419
Tapping mains. Device for	M. P. Madden	463,524	Nov. 17	2055	538	57	966
Tapping mains. Machine for	J. Brankey	447,001	Feb. 24	2436	606	54	1013
Target. Automatic-signaling	A. T. M. Johnson	444,494	Jan. 13	813	211 212 213	54	170
Target. Flying	I. H. Claggett	462,691	Nov. 10	753	196	57	704
Target. Self-indicating	J. Paterson	449,270	Mar. 31	3223	813 814	54	1766
Target-trap	P. North	457,442	Aug. 11	857	222	56	700
Target-trap	C. and M. Swan	444,373	Jan. 6	609	157	54	120
Target-trap. Self-feeding	G. H. Hockey	446,519	Feb. 17	1672	408	54	857
Tattooing-machine	S. F. O'Reilly	464,801	Dec. 8	1233	307	57	1379
Tea-kettle	J. L. Clark	449,899	Apr. 7	385	97, 98	55	76
Tea-kettle	A. G. Patton	463,166	Nov. 17	1514	393	57	861
Tea-kettle	G. H. Zipf	453,686	June 9	803	205	55	1308
Tea or coffee pot	W. G. Gibson	450,932	Apr. 21	1865	487	55	401
Tea-pot, coffee-pot, &c	R. P. and J. M. Moncrieff	451,862	May 5	629	156	55	698
Teaching arithmetic. Device for	J. Denison	452,302	May 12	1370	349	55	842
Teaching combinations of numbers. Device for	E. F. Cowan	462,376	Nov. 3	255	62	57	599
Teaching music. Apparatus for	A. Adamson	451,010	Apr. 28	2132	527	55	437
Tedder	A. F. Brown and W. R. Knaub.	465,155	Dec. 15	1832	465 466	57	1502
Tedder-frame and rake-head	W. H. Hall	448,232	Mar. 17	1566	400	54	1434
Teeth. Restoring defective	C. H. Land	454,566	June 23	2086	538	55	1569
Teeth-separator	F. H. Cross and C. H. Davis.	465,555	Dec. 22	2489	636	57	1637
Teeth-separator	J. W. Ivory	450,825	Apr. 21	1833	445	55	371
Teething-bit for children	P. Grabler	462,763	Nov. 10	859	225	57	725
Telautograph	E. Gray	461,470	Oct. 20	1461	367 368	57	297
Telautograph	E. Gray	461,473	Oct. 20	1518	373	57	306
Telautograph	E. Gray	461,474	Oct. 20	1521	373 374	57	307
Telautograph	M. Soblik	461,152	Oct. 13	923	239	57	184
Telautographic communication. Art of and apparatus for	E. Gray	461,472	Oct. 20	1490	370 371 372 373	57	300
Telegraph	T. A. Edison	448,779	Mar. 24	2473	619	54	1615
Telegraph and telephone. Combined	E. Berliner	463,569	Nov. 17	2143	566	57	983
Telegraph apparatus	J. A. Parker	447,198	Feb. 24	2796	691	54	1080
Telegraph apparatus. Fire-alarm	J. W. Stover	451,902	May 5	690	173	55	709
Telegraph apparatus. Pneumatic fire-alarm	A. Goldstein	455,038	June 30	2919	742 743	55	1732
Telegraph. Autographic	H. Etheridge	445,715	Feb. 3	327	86	54	577
Telegraph. Automatic	D. Kunhardt	457,816	Aug. 18	1449	377 378 379	56	823
Telegraph. Automatic fire-alarm	M. Martin	464,510	Dec. 8	777	191	57	1293
Telegraph. Fire-alarm	G. F. Milliken	453,982	June 9	1215	316	55	1388
Telegraph for cable railways. Signaling	T. A. B. Putnam	457,565	Aug. 11	1053	269 270	56	738

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Telegraph instrument. Printing.....	F. Sedgwick.....	454,884	June 30	2615	{ 671 672 673 748 749 }	55	1673
Telegraph instrument. Printing.....	J. E. Wright.....	460,457	Sept. 29	2991	{ 748 749 }	56	1670
Telegraph-key.....	J. Doggett.....	445,442	Jan. 27	2315	601	54	478
Telegraph-key.....	R. W. Green.....	455,320	July 7	33	9	56	9
Telegraph-key.....	L. F. Robare.....	464,897	Dec. 8	1364	343	57	1404
Telegraph-keys. Automatic circuit-closer for.....	J. W. Brown.....	456,110	July 14	1272	334	56	251
Telegraph-lines. Switch-board for.....	F. T. Viles and N. Young.....	454,584	June 23	2124	548	55	1576
Telegraph or other post. Iron or steel.....	W. E. Pedley.....	460,831	Oct. 6	459	116	57	91
Telegraph-pole brace.....	H. Ogden.....	448,786	Mar. 24	2482	621	54	1616
Telegraph. Printing.....	D. H. Bates and H. Van Hoeven-bergh.....	455,294	June 30	3368	849	55	1819
Telegraph. Printing.....	M. G. Farmer.....	460,572	Oct. 6	47	11	57	11
Telegraph. Printing.....	P. H. Fisk.....	450,228	Apr. 14	864	{ 216 217 218 }	55	174
Telegraph. Printing.....	S. R. Linville.....	450,631	Apr. 21	1523	369	55	312
Telegraph. Printing.....	S. R. Linville and L. F. Hettman- sperger.....	450,630	Apr. 21	1494	{ 367 368 369 198 199 }	55	301
Telegraph. Printing.....	E. Pope.....	451,951	May 12	781	{ 198 199 }	55	734
Telegraph. Printing.....	H. Van Hoevenbergh.....	455,075	June 30	2992	761	55	1747
Telegraph. Printing.....	H. Van Hoevenbergh.....	457,239	Aug. 4	481	{ 127 128 129 699 700 }	56	623
Telegraph. Printing.....	J. E. Wright.....	460,328	Sept. 29	2807	{ 700 701 }	56	1636
Telegraph-receiver.....	C. Langden-Davies.....	453,261	June 2	129	35	55	1172
Telegraph-relay.....	R. O. Wickes.....	450,272	Apr. 14	938	{ 232 233 }	55	187
Telegraph-repeater.....	R. L. Atkinson.....	464,001	Dec. 1	2	1	57	1137
Telegraph-repeater.....	A. C. Booth.....	451,449	May 5	5	2	55	580
Telegraph repeater. Fire-alarm.....	G. M. Stevens.....	463,340	Nov. 17	1783	468	57	912
Telegraph. Sextuplex.....	T. A. Edison.....	452,913	May 26	2368	{ 599 600 601 169 170 }	55	1047
Telegraph. Sextuplex.....	T. A. Edison.....	452,601	June 2	659	{ 169 170 }	55	1272
Telegraph-sounder.....	J. Maret.....	463,428	Nov. 17	1928	503	57	941
Telegraph. Synchronous.....	C. S. Bradley.....	463,852	Nov. 24	2598	676	57	1077
Telegraph system. Police-signal.....	C. A. Rolfe.....	462,741	Nov. 10	821	214	57	718
Telegraph-table.....	K. V. Miller.....	462,720	Nov. 10	790	206	57	712
Telegraph-transmitter.....	H. G. Robbins.....	449,174	Mar. 31	3070	776	54	1738
Telegraph-transmitter.....	S. W. Smith.....	447,166	Feb. 24	2742	679	54	1069
Telegraphs. Automatic switch for autographic.....	H. Etheridge.....	445,716	Feb. 3	329	87	54	577
Telegraphs. Electro-mechanical indicator for fire- alarm.....	T. F. Gaynor.....	445,991	Feb. 10	789	{ 192 193 663 664 }	54	676
Telegraphic and time indications. Electrical trans- mission of.....	H. J. Haight.....	454,867	June 30	2582	{ 663 664 }	55	1668
Telegraphic apparatus.....	W. E. Sloan, J. E. Hughes, and O. S. Reed.....	459,448	Sept. 15	1426	358	56	1359
Telegraphic apparatus. Electric.....	S. V. Essick.....	454,338	June 16	1730	451	55	1494
Telegraphic apparatus. Printing.....	G. A. Cassagnes.....	460,349	Sept. 29	2842	{ 707 708 709 }	56	1643
Telegraphic apparatus. Ship's.....	W. Chadburn.....	451,754	May 5	480	119	55	669
Telegraphic instrument.....	C. G. Burke.....	460,110	Sept. 29	2468	617	56	1570
Telegraphic instrument.....	C. G. Burke.....	460,111	Sept. 29	2470	617	56	1570
Telegraphic transmitting apparatus.....	M. Martin.....	459,013	Sept. 8	722	{ 177 178 }	56	1215
Telegraphic transmitting-instrument.....	C. G. Burke.....	460,109	Sept. 29	2465	616	56	1570
Telegraphy.....	F. Anderson.....	449,655	Apr. 7	2	1	55	3
Telegraphy.....	R. G. Brown.....	446,424	Feb. 17	1523	{ 375 376 377 }	54	827
Telegraphy.....	R. G. Brown.....	446,425	Feb. 17	1526	376	54	828
Telegraphy.....	R. G. Brown.....	449,897	Apr. 7	382	97	55	75
Telegraphy.....	E. Gray.....	461,471	Oct. 20	1478	{ 369 370 }	57	300
Telegraphy.....	D. Kunhardt.....	458,585	Sept. 1	57	13	56	1077
Telegraphy.....	B. B. Toye.....	454,630	June 23	2212	570	55	1590
Telegraphy. Duplex.....	J. J. Ghegan.....	459,930	Sept. 22	2203	553	56	1513
Telegraphy. Duplex and quadruplex.....	F. W. Jones.....	462,901	Nov. 10	1088	283	57	770
Telegraphy. Quadruplex.....	C. D. Haskins.....	455,398	July 7	160	41	56	34
Telegraphy. Railway-car.....	W. S. and M. C. Cook.....	447,943	Mar. 10	1100	276	54	1333
Telegraphy. System of synchronism.....	G. A. Cassagnes.....	465,832	Dec. 29	2909	{ 745 746 747 }	57	1729
Telemeter. Optical.....	A. A. Michelson.....	452,060	May 12	980	{ 249 250 251 }	55	770
Telephone.....	C. Cuttriss.....	464,959	Dec. 15	1470	370	57	1436
Telephone.....	S. D. Field.....	448,329	Mar. 17	1751	144	54	1470
Telephone.....	J. H. Howard.....	459,214	Sept. 8	1051	256	56	1276
Telephone.....	W. Humans.....	449,254	Mar. 31	3203	808	54	1763
Telephone.....	E. J. P. Mercadier.....	447,194	Feb. 24	2789	690	54	1078
Telephone.....	E. Noriega.....	445,475	Jan. 27	2360	613	54	486
Telephone.....	E. Noriega.....	458,479	Aug. 25	2538	618	56	1034
Telephone attachment.....	E. E. Baker.....	453,722	June 9	859	222	55	1318
Telephone box or cabinet.....	B. A. Stevens.....	445,721	Feb. 3	337	89	54	579
Telephone-call.....	D. H. Rice.....	446,614	Feb. 17	1804	{ 445 446 447 }	54	883
Telephone call-box.....	F. Villiers-Stead and E. R. Hedgman.....	451,143	Apr. 28	2321	576	55	475
Telephone-circuit.....	W. W. Jacques.....	453,483	June 2	482	125	55	1239
Telephone circuit and apparatus.....	J. J. Carty.....	449,106	Mar. 31	2966	{ 750 751 }	54	1718

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Telephone - circuits by induced or other currents. Means for preventing the interference with speech on	W. Stanley, Jr., and J. F. Kelly	464,529	Dec. 8	809	198	57	1298
Telephone. Electric transmitting	R. Eickemeyer	464,152	Dec. 1	216	51, 52	57	1177
Telephone enunciator or indicator	G. R. Lawrence	444,780	Jan. 13	1253	325	54	253
Telephone-exchange apparatus	F. G. Beach	447,485	Mar. 3	364	90	54	1187
Telephone-exchange. Automatic	A. B. Strowger	447,918	Mar. 10	1065	267	54	1326
Telephone exchange. Mechanical	G. F. Shaver	444,462	Jan. 13	757	197	54	158
Telephone exchange. Mechanical	G. F. Shaver	444,463	Jan. 13	758	198	54	159
Telephone-exchanges. Metallic circuit-test and time-signal for	J. J. O'Connell	454,016	June 9	1263	328	55	1398
Telephone-exchanges. Multiple system for	W. E. McKivitt	461,887	Oct. 27	2188	539 } 540 }	57	442
Telephone lines. Device for inserting branch lines on mechanical	G. F. Shaver	444,461	Jan. 13	756	197	54	158
Telephone-lines. Electric connection for distributing	W. M. Goodridge	453,000	May 26	2519	638	55	1077
Telephone. Mechanical	J. P. Sunderland	453,600	June 2	658	169	55	1272
Telephone pay-stations. Signal device for	W. Gray	454,470	June 23	1941	506	55	1542
Telephone pay-stations. Signal device for	W. Gray	462,813	Nov. 10	945	246	57	743
Telephone. Mechanical	H. B. Thompson	466,086	Dec. 29	3343	855	57	1812
Telephone-protector	J. L. W. Zietlow	464,643	Dec. 8	974	242 } 243 }	57	1331
Telephone-receiver	W. S. Corwin	451,634	May 5	293	71	55	634
Telephone-receiver	C. T. Dickson	452,775	May 26	2152	539	55	1006
Telephone-receiver	J. H. Howard	450,205	Sept. 8	1035	252	56	1273
Telephone-receiver holder	F. T. and W. K. S. Tuning	453,433	June 2	412	107	55	1224
Telephone-receivers. Hook or crotch for	J. H. Howard	459,213	Sept. 8	1050	255	56	1276
Telephone sound-transmitter	A. E. Schatz	449,180	Mar. 31	3086	778	54	1740
Telephone-support	W. J. Myers	455,722	July 7	689	182	56	133
Telephone support. Receiving	W. N. Marcus	450,359	Apr. 14	1076	265	55	213
Telephone switch-board. Multiple	F. A. Pickernell	463,544	Nov. 17	2104	535	57	975
Telephone switch-boards. Spring-jack commutator for	L. A. Berthon	458,258	Aug. 25	2165	531	56	966
Telephone-switch system	C. C. Gould	447,426	Mar. 3	246	63	54	1164
Telephone system	C. C. Gould	461,573	Oct. 20	1679	411	57	337
Telephone system. Automatic	H. V. Hayes and H. D. Sears	457,477	Aug. 11	916	234 } 235 }	56	710
Telephone-toll apparatus	W. Gray	448,024	Mar. 10	1243	316	54	1361
Telephone transmission	J. W. McDonough	446,188	Feb. 10	1120	274	54	733
Telephone-transmitter	P. Fitzsimons	452,636	May 19	1934	485	55	956
Telephone-transmitter	P. Fitzsimons	453,581	June 2	628	140	55	1266
Telephone-transmitter	T. Oeyan	448,726	Mar. 24	2389	598	54	1598
Telephones. Adjustable support for	C. H. Gatchell	465,778	Dec. 22	2822	723	57	1702
Telephones. Auxiliary mouth-piece for	W. N. Marcus	450,358	Apr. 14	1076	264	55	213
Telephones. Induction-preventive for	T. F. Wright and E. G. Wilson	447,858	Mar. 10	962	241	54	1307
Telephones. Signal attachment for	A. D. Sundeen, S. B. Molander, G. W. Anderson, and A. M. Carlsen	454,503	June 23	1993	518	55	1552
Telephones. Signal attachment for	A. D. Sundeen, S. B. Molander, G. W. Anderson, and A. M. Carlsen	454,504	June 23	1998	518	55	1553
Telephones. Speaking-tube attachment for	L. H. Snyder	463,556	Nov. 17	2123	560	57	978
Telephonic auditory apparatus	G. V. Benjamin	448,627	Mar. 24	2230	559	54	1568
Telephonic relay	E. E. Weaver	463,207	Nov. 17	1571	409	57	872
Telephony	J. W. Gibboney	463,188	Nov. 17	1541	402	57	867
Telephony. Multiple	W. W. Jacques	449,679	Apr. 7	49	12	55	11
Telescope	J. Paoli	461,389	Oct. 13	1326	335	57	264
Telescope. Eight-lens	W. N. Riddle	451,134	Apr. 28	2308	571	55	473
Telescopic joint	E. C. Davis and T. Baldwin	445,440	Jan. 27	2314	600 } 601 }	54	478
Thermometer	H. L. Callendar	462,371	Nov. 3	245	60	57	597
Thermometer	O. Knöfler	452,877	May 26	2305	582	55	1036
Thermometer	F. W. Wiesbrock	455,268	June 30	3297	835 } 836 }	55	1805
Tellurian	C. A. Bowsher	457,487	Aug. 11	941	238 } 239 }	56	714
Tellurian	G. R. Moore	452,413	May 19	1574	390	55	889
Tellurian	G. R. Moore	465,824	Dec. 22	2884	739	57	1716
Tellurian	D. W. Randall	452,650	May 19	1951	480	55	959
Tellurian	J. K. Rassweiler	448,075	Mar. 10	1310	335	54	1375
Tellurian	L. E. Roussel	459,871	Sept. 22	2106	529	56	1496
Tellurian	W. H. Shera	446,022	Feb. 10	832	200	54	682
Tellurian	S. T. Swigert	455,419	July 7	195	50, 51	56	41
Telpher system	C. J. Van Depoele	458,871	Sept. 1	512	124 } 125 }	56	1163
Temperature-alarm	L. Zagemeyer	451,548	May 5	154	38	55	609
Temperature-controller. Electric	E. H. Parker	454,985	June 30	2819	718	55	1713
Temperature of air. Device for regulating the	W. H. Murray	450,869	Apr. 21	1905	467 } 468 }	55	385
Temperature of liquids. Apparatus for maintaining the	H. G. Cheney	450,422	June 2	390	101	55	1220
Temperature-regulator	L. F. Easton. (Roissue)	11,148	Mar. 3	765	190	54	1263
Temperature-regulator	A. Kelly	457,280	Aug. 4	558	147 } 148 }	56	636
Temperature-regulator	J. F. McElroy	445,378	Jan. 27	2222	576	54	460
Temperature-regulator	J. F. McElroy	462,503	Nov. 3	441	108	57	634
Temperature-regulator. Electric	J. V. Stout	448,274	Mar. 17	1645	419	54	1450
Tempering machine	C. F. Wurster	465,309	Dec. 15	2074	530	57	1548
Temple-guard	W. P. Hollings	453,186	June 2	15	5	55	1151
Tennis-court marker	H. T. Kingsbury	444,384	Jan. 6	626	162	54	123
Tennis-racket	C. Malings	455,632	July 7	540	141	56	105
Tenon and other machines. Table for	W. D. Herschel	460,069	Sept. 22	2400	600 } 601 }	56	1550
Tenon-cutting machine	B. A. Haines	447,772	Mar. 10	806	200	54	1278
Tenoning-machines. Clamping attachment for	W. H. Bennett	462,526	Nov. 3	478	116	57	642

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. gr.	Vol.	Page.
Tension device	W. A. Kirby and A. McKain	450,837	Apr. 21	1851	451	55	374
Tension device	J. H. Sparks and W. S. Brown	446,842	Feb. 17	2163	538	54	955
Tent	A. S. Comstock	444,605	Jan. 13	979	{ 253 254	54	202
Tent	J. J. Navo	453,049	May 26	2590	6-5	55	1092
Tent and knapsack. Combined shelter	H. Stiter	460,896	Oct. 6	561	{ 141 142	57	109
Tent. Folding	F. H. J. Kaufert	465,084	Dec. 15	1704	{ 433 434	57	1479
Tent. Portable indoor	W. Orr, Sr.	459,764	Sept. 22	1936	488	56	1462
Tents. Ridge-pole splicer for	G. A. Cornell	465,921	Dec. 29	3058	784	57	1757
Teutering-machine	F. H. Narwood	458,678	Sept. 1	205	48	56	1105
Teutering-machine guide	L. C. Hollingworth	459,203	Sept. 8	1033	252	56	1273
Teutering-machines. Cloth-guiding attachment for	J. J. Scholfield	463,553	Nov. 17	2119	559	57	978
Teutering or drying machines. Automatic stop-motion device for	L. Hollingworth	450,511	Apr. 14	1313	{ 322 323	55	259
Terra-cotta blocks. Manufacture of	S. H. Leech and H. L. Doulton	451,854	May 5	616	152	55	696
Terret	R. Thimblson	455,836	July 14	882	232	56	178
Terret and hitching-strap holder	O. E. Lawson	447,958	Mar. 10	1132	2-4	54	1339
Testing-machine. Recording	T. Olsen	445,476	Jan. 27	2362	{ 614 615	54	487
Tether	F. M. Powell and W. H. Vickery	445,454	Jan. 27	2336	607	54	482
Tether-pin	L. P. Carl	444,661	Jan. 13	1057	275	54	217
Textile materials. Apparatus for washing, dyeing, and treating	E. and G. E. Sutcliffe	463,846	Nov. 24	2586	673	57	1075
Textile or other material. Machine for folding	C. W. Shippee	463,171	Nov. 17	1520	395	57	862
Textile webs. Machine for opening out the curled edges of	J. J. Scholfield	463,550	Nov. 17	2116	557	57	977
Textile webs. Mechanism for guiding the edges of	J. J. Scholfield	463,551	Nov. 17	2117	{ 557 558	57	977
Textile webs. Mechanism for guiding the edges of	S. Scholfield	463,584	Nov. 17	2172	574	57	988
Theatrical illusion	J. Buatier	462,391	Nov. 3	279	69	57	603
Thermal gage. Track-layer's	P. H. Fontaine	450,065	Apr. 7	613	154	55	119
Thermo-cauter	C. A. Paquelin	454,524	June 23	2022	524	55	1557
Thermometer	A. J. Dodge	465,054	Dec. 15	1654	421	57	1469
Thermometer	J. Kent	456,417	July 21	1774	469	56	355
Thermometer. Clinical	J. J. Hicks and H. Pinchetti	460,013	Sept. 22	2313	580	56	1534
Thermometer. Clinical	G. W. Simpson	455,833	July 14	879	231	56	177
Thermometer. Clinical	C. J. Tagliabue	451,343	Apr. 28	2649	655	55	538
Thermometer. Clinical	J. Wall	446,140	Feb. 10	1033	254	54	719
Thermometer for sad-irons	A. Nicolaus	448,066	Mar. 10	1301	332	54	1373
Thermometer-graduating machine	J. D. Hall	449,442	Mar. 31	3544	893	54	1824
Thermometer. Oven	D. G. Cooper	447,129	Feb. 24	2047	657	54	1053
Thermometer-printing machine	J. D. Hall	449,444	Mar. 31	3549	894	51	1825
Thermometer-tube-filling apparatus	J. D. Hall	449,443	Mar. 31	3547	893	54	1824
Thermostat	A. M. Barron	446,846	Feb. 24	2173	541	54	965
Thermostat	A. M. Butz	452,163	May 12	1168	295	55	802
Thermostat	H. A. Chase	455,788	July 14	805	210	56	164
Thermostat	H. A. Chase and H. F. Eaton	455,813	July 14	853	223	56	172
Thermostat	J. C. Sims	450,896	Apr. 21	1941	476	55	392
Thermostat	W. F. Singer	450,260	Apr. 14	922	229	55	124
Thermostatic regulator	E. C. Merrill	446,583	Feb. 17	1764	435	54	875
Thill attachment. Vehicle	W. Johnson	465,528	Dec. 22	2441	622	57	1628
Thill-coupling	A. Anness and W. M. Ring	453,138	May 26	2742	691	55	1121
Thill-coupling	C. Bassford	461,996	Oct. 27	2363	586	57	475
Thill-coupling	A. Beale	453,896	June 9	1096	287	55	1364
Thill-coupling	G. L. and F. S. Blackman	463,618	Nov. 24	2239	590	57	1010
Thill-coupling	P. Broadbooks	448,707	Mar. 24	2353	589	54	1592
Thill-coupling	D. S. Brown	455,011	June 30	2875	731	55	1724
Thill-coupling	D. S. Brown	465,918	Dec. 29	3054	782	57	1756
Thill-coupling	H. D. Brown	453,619	June 9	704	182	55	1289
Thill-coupling	W. L. Bryan	448,499	Mar. 17	2013	503	54	1519
Thill-coupling	H. C. Burdette	459,248	Sept. 8	1102	269	56	1286
Thill-coupling	A. Burger	454,329	June 16	1717	448	55	1492
Thill-coupling	W. H. Burke	455,163	June 30	3135	796	55	1773
Thill-coupling	C. E. Carpenter	446,323	Feb. 10	1357	331	54	781
Thill-coupling	G. W. Chandler	465,041	Dec. 15	1629	415	57	1465
Thill-coupling	N. M. Compton and W. H. Longcoy	444,333	Jan. 6	547	142	54	110
Thill-coupling	J. Cook	456,019	July 14	1157	303	56	228
Thill-coupling	J. Deitrick	459,074	Sept. 8	827	200	56	1233
Thill-coupling	J. M. Farmer	463,699	Nov. 24	2375	621	57	1034
Thill-coupling	J. O. Ferguson	466,059	Dec. 29	3309	845	57	1805
Thill-coupling	C. H. Fuller	462,250	Nov. 3	46	12	57	561
Thill-coupling	W. H. Hannan	456,117	July 14	1284	337	56	253
Thill-coupling	C. D. Huff	455,284	June 30	3349	845	55	1815
Thill-coupling	F. N. Kelsey	449,367	Mar. 31	3420	860	54	1799
Thill-coupling	A. Kerry	458,107	Aug. 18	1922	499	56	913
Thill-coupling	H. D. Landis	455,218	June 30	3227	819	55	1792
Thill-coupling	J. W. Leete	465,628	Dec. 22	2605	662	57	1658
Thill-coupling	W. A. Maddy	453,428	June 2	405	105	55	1225
Thill-coupling	D. McCready	447,786	Mar. 10	834	209	54	1383
Thill-coupling	W. A. McNeal	446,837	Feb. 17	2156	535	54	954
Thill-coupling	L. C. Mills	444,299	Jan. 6	499	130	54	100
Thill-coupling	F. M. Mitchell	460,830	Oct. 6	458	116	57	91
Thill-coupling	W. C. Moler	450,418	Apr. 14	1182	288	55	232
Thill-coupling	I. H. Mulford	456,051	July 14	1194	314	56	235
Thill-coupling	D. Murray	460,785	Oct. 6	401	97	57	79
Thill-coupling	A. Niekamp	457,662	Aug. 11	1196	306	56	765
Thill-coupling	H. Parkinson	464,164	Dec. 1	327	58	57	1180
Thill-coupling	W. J. Patterson	459,710	Sept. 15	1851	465	56	1439
Thill-coupling	A. Paul	446,005	Feb. 10	812	196	54	679
Thill-coupling	G. H. Perry	465,726	Dec. 22	2739	698	57	1686
Thill-coupling	A. Plique	452,236	May 12	1275	321	55	824
Thill-coupling	A. J. Ritter	450,919	Apr. 21	1970	483	55	398

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Thill-coupling.....	A. J. Robinson.....	465,144	Dec. 15	1814	460	57	1499
Thill-coupling.....	S. H. Root.....	465,538	Dec. 22	2462	628	57	1632
Thill-coupling.....	H. C. Rose and T. J. Thompson.....	449,235	Mar. 31	3165	798	54	1755
Thill-coupling.....	D. E. Russell.....	454,118	June 16	1406	367	55	1431
Thill-coupling.....	M. T. Smith.....	460,041	Sept. 22	2359	590	56	1542
Thill-coupling.....	W. M. Strother.....	447,439	Mar. 3	277	70	54	1170
Thill-coupling.....	C. Tahash.....	454,236	June 16	1580	416	55	1466
Thill-coupling.....	F. G. Tallyday.....	455,806	July 14	836	220	56	169
Thill-coupling.....	T. Watts.....	448,284	Mar. 17	1671	423	54	1454
Thill-coupling.....	E. Wilder.....	458,310	Aug. 25	2265	553	56	983
Thill-coupling.....	H. L. Witham.....	454,243	June 16	1586	418	55	1467
Thill-coupling and thill-support.....	E. S. Gehman and F. Yeakel.....	462,860	Nov. 10	1020	264	57	757
Thill-coupling clip.....	C. C. Tilghman and J. N. Goldsborough.....	455,843	July 14	890	234	56	179
Thill-couplings. Anti-rattler for.....	W. H. Bodfish.....	460,549	Oct. 6	4	1	57	3
Thill-couplings. Anti-rattler for.....	F. V. Phillips and G. H. Dayton.....	456,203	July 21	1420	377	56	289
Thill-couplings. Anti-rattler for.....	E. E. Stephenson.....	464,220	Dec. 1	338	82	57	1197
Thill-couplings. Anti-rattler for.....	A. H. Terry.....	446,036	Feb. 10	863	209	54	688
Thill-holder.....	A. H. Vernay.....	459,950	Sept. 22	2227	559	56	1517
Thill-iron.....	J. McCradden.....	464,983	Dec. 15	1510	378	57	1443
Thill-lug.....	L. C. Merrill.....	465,186	Dec. 15	1880	476	57	1511
Thill-retainer for vehicles.....	J. Barr.....	460,174	Sept. 29	2569	641	56	1590
Thill-support.....	J. A. Adams.....	455,678	July 7	610	160	56	118
Thill-support.....	O. E. Byrd.....	452,634	May 19	1926	484	55	954
Thill-support.....	A. Delamater.....	453,438	June 2	417	108	55	1226
Thill-support.....	P. J. Harrah.....	455,204	June 30	3209	814	55	1789
Thill-support.....	J. N. Kindred.....	459,964	Sept. 22	2243	563	56	1520
Thill-support.....	E. A. McGoldrick.....	454,878	June 30	2601	668	55	1671
Thill-support.....	W. Y. Watt.....	452,627	May 19	1914	481	55	952
Thill-tip.....	W. Sellers.....	451,892	May 5	675	171	55	707
Thimble.....	G. O. Rogers.....	458,499	Aug. 25	2572	626	56	1041
Thimble.....	W. A. Wood.....	464,545	Dec. 8	829	204	57	1302
Thimbles. Thread-cutter for.....	A. O. Shatsick.....	453,393	June 2	327	85	55	1209
Thistles. Destroying Canada.....	W. Burton.....	464,092	Dec. 1	151	57	57	1162
Thrasher.....	E. F. Sanford.....	454,230	June 16	1569	413	55	1464
Thrasher attachment.....	R. Davis.....	465,357	Dec. 15	2166	554	57	1564
Thrasher. Flax.....	G. Y. Smith and J. McGrath.....	452,442	May 19	1620	402	55	897
Thrashers. Band-cutter and feeder for.....	M. S. McCoy.....	461,036	Oct. 13	764	196	57	155
Thrashers. Band-cutting attachment for.....	F. M. Barton and J. C. Williams.....	459,734	Sept. 22	1892	477	56	1453
Thrashers. Chaff-separator for.....	G. E. Minges.....	448,357	Mar. 17	1792	453	54	1478
Thrashers. Grain-separating mechanism for traveling.....	L. H. Hill.....	445,112	Jan. 20	1822	471	54	371
Thrashers. Sieve attachment for.....	H. L. Windler.....	444,129	Jan. 6	252	60	54	52
Thrashers. Traction attachment for.....	E. A. and C. Howland.....	451,537	May 5	170	41	55	612
Thrashing-cylinder.....	C. Frantz.....	449,438	Mar. 31	3539	892	54	1823
Thrashing-machine.....	W. C. Adams.....	463,883	Nov. 24	2656	692	57	1087
Thrashing-machine.....	J. Branning.....	461,864	Oct. 27	2150	530	57	434
Thrashing-machine.....	E. W. Flagg.....	454,466	June 23	1936	505	55	1541
Thrashing-machine.....	G. Frick.....	447,043	Feb. 24	2520	625	54	1028
Thrashing-machine.....	A. R. Gustafson.....	446,643	Feb. 17	1854	460	54	892
Thrashing-machine.....	A. R. Gustafson.....	446,644	Feb. 17	1856	460	54	892
Thrashing-machine.....	A. R. Gustafson.....	446,645	Feb. 17	1858	461	54	893
Thrashing-machine.....	F. F. Landis.....	447,032	Feb. 24	2499	621	54	1024
Thrashing-machine.....	E. McDonald.....	446,234	Feb. 10	1193	292	54	748
Thrashing-machine.....	G. H. Theede.....	461,967	Oct. 27	2318	575	57	467
Thrashing-machine conveyer.....	C. J. Hartley.....	446,598	Feb. 17	1781	440	54	878
Thrashing-machine conveyer.....	T. F. Phipps.....	450,420	Apr. 14	1184	289	55	232
Thrashing-machine cutter and feeder.....	J. Eagleston.....	450,098	Apr. 7	660	167	55	129
Thrashing-machine cylinder.....	A. R. Gustafson.....	466,092	Dec. 29	3363	859	57	1816
Thrashing-machine feeder.....	C. Harrison.....	462,434	Nov. 3	350	86	57	617
Thrashing-machine feeding attachment.....	C. and P. Quintus.....	461,875	Oct. 27	2171	535	57	439
Thrashing-machine feeding device.....	J. P. Monnett.....	450,084	Apr. 7	643	162	55	126
Thrashing-machines. Attachment for the separators of.....	L. and A. Y. Gray.....	448,957	Mar. 24	2738	690	54	1665
Thrashing-machines. Band-cutter and feeder for.....	L. Close.....	455,657	July 7	581	151	56	113
Thrashing-machines. Band-cutter and feeder for.....	L. Epps and E. Kibbee.....	452,266	May 12	1326	331	55	833
Thrashing-machines. Band-cutter and feeder for.....	E. J. Thickstun.....	465,895	Dec. 29	3024	773	57	1750
Thrashing-machines. Feed-board for.....	J. H. Barr.....	457,948	Aug. 18	1683	441	56	866
Thrashing-machines. Feeder and band cutter for.....	V. E. Calderwood and A. Le Sueur.....	458,334	Aug. 25	2305	562	56	991
Thrashing-machines. Feeder and band-cutter for.....	O. Cleaveland.....	464,062	Dec. 1	83	22	57	1152
Thrashing-machines. Force-feed attachment for.....	E. E. Logan.....	465,714	Dec. 22	2726	695	57	1683
Thrashing-machines. Grain-elevating apparatus for.....	E. H. Reynolds.....	450,192	Apr. 14	797	202	55	162
Thrashing-machines. Grain-measuring attachment for.....	W. P. Farrell.....	454,727	June 23	2352	604	55	1619
Thrashing-machines. Grain-pan for.....	F. F. Landis.....	454,365	June 16	1773	461	55	1502
Thrashing-machines. Straw-separator for.....	E. H. Nicholson.....	452,948	May 26	2437	615	55	1062
Thrashing-machines. Straw-stacking attachment for.....	A. P. Miller.....	449,556	Mar. 31	3715	933	54	1856
Thrashing-machines. Tooth for.....	I. G. Colcord.....	453,624	June 9	710	183	55	1290
Thread-cutting machine.....	L. Schultz.....	456,739	July 28	2312	611	56	466
Thread upon disk-holders. Machine for winding.....	J. Keats.....	456,671	July 28	2192	580	56	444
Thread-winding machine.....	W. Duchemin.....	463,142	Nov. 17	1468	381	57	853
Threshold.....	A. Bussert.....	448,501	Mar. 17	2015	382	54	1519

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette	
				Spec.	Dr. g.	Vol.	Page.
Ticket-case and cash-box. Combined	P. F. Jones	455,624	July 7	529	139	56	102
Ticket-case and fare-register	M. Fortunio	457,264	Aug. 4	532	139	56	631
Ticket. Coupon	F. W. Leonard	463,701	Nov. 24	2377	622	57	1035
Ticket for railways. Cash-fare	J. D. Gibbs	453,442	June 2	420	110	55	1226
Ticket-holder	W. J. Barron	460,769	Oct. 6	372	92	57	73
Ticket-holder	B. S. Hoyt	444,593	Jan. 13	963	250	54	200
Ticket-holder	J. Mason	460,144	Sept. 29	2526	629	56	1581
Ticket-holder. Pocket	W. E. Gorman	458,786	Sept. 1	358	87	56	1134
Ticket holder or till	A. Rokusek, P. Sanford, and E. B. Harvey.	458,595	Sept. 1	72	16	56	1080
Ticket-holding case	W. F. Beck	450,925	Apr. 21	1977	485	55	400
Ticket. Railway	W. H. Campbell	453,037	May 26	2572	650	55	1088
Ticket. Railway	W. H. Campbell	455,655	July 7	577	150	56	112
Ticket. Railway	W. E. Finch	462,812	Nov. 10	943	245	57	743
Ticket. Railway	L. D. Hensner	461,409	Oct. 13	1359	342	57	271
Ticket. Railway	A. Rokusek, E. B. Harvey, and P. Sanford.	464,690	Dec. 8	1057	263	57	1346
Ticket. Railway	C. O. Tangeman	462,516	Nov. 3	461	113	57	638
Ticket. Railway	W. A. Thrall	455,073	June 30	2990	761	55	1746
Ticket. Railway mileage	M. Y. Campbell	445,368	Jan. 27	2211	573	54	458
Ticket-reel	M. Everett	444,342	Jan. 6	562	144	54	112
Ticket-reel	E. Knoop	457,854	Aug. 18	1518	395	56	836
Ticket-register	E. F. Antrobus	462,072	Oct. 27	2468	612	57	495
Ticket. Strip	J. M. Harper	444,149	Jan. 6	281	67	54	57
Tickets. Machine for making pin	A. Kimball	457,782	Aug. 18	1394	360 361 362	56	813
Tide and wave power	G. C. Hale and T. R. Tinsley	455,616	July 7	515	133	56	99
Tide and wave power apparatus	N. O. Bond	446,422	Feb. 17	1518	374	54	826
Tide-motor	G. M. Copeland	446,057	Feb. 10	898	218	54	694
Tidy-holder	W. G. Browne	449,898	Apr. 7	385	97	55	75
Tidy-holder	W. W. Hornberger and L. J. Langeay.	463,681	Nov. 24	2340	613	57	1028
Tidy-holder	P. G. Leistner	448,967	Mar. 24	2754	695	54	1668
Tie:							
See Bag-tie.	Railway-tie.						
Bale-tie.	Railway cross-tie.						
Cross-tie.	Railway-rail tie.						
Rail-tie.							
Tie-plate and rail-clip. Combination	C. C. Wrenshall	450,305	Apr. 14	957	245	55	196
Tie-plates. Blank bar for	W. Goldie	465,260	Dec. 15	1993	510	57	1533
Tie-wires. Separating cross-head	G. B. Baer	445,828	Feb. 3	528	128	54	614
Terces, barrels, &c. Means for piling up	J. C. Boyle	458,515	Aug. 25	2600	633	56	1047
Title	F. D. Cook	455,659	July 7	584	152	56	114
Title, brick, &c. Machine for pressing	G. A. Stanberg	453,133	May 26	2735	689 690	55	1120
Title. Building	J. Pajean	449,133	Mar. 31	3015	763	54	1727
Title. Drain	W. Reading	460,352	Sept. 29	2850	710	56	1644
Title fastening. Roofing	M. A. and J. H. Jackson	464,503	Dec. 8	762	186	57	1289
Title. Fire-proof	N. Cowsill	462,534	Nov. 3	495	121	57	646
Title flooring. Hollow	M. F. McCarthy	461,960	Oct. 27	2311	573	57	465
Title for copings	J. Lynch	448,972	Mar. 24	2761	697	54	1670
Title. Illuminating	J. Jacobs	458,849	Sept. 1	469	112 113	56	1155
Title. Illuminating	J. Jacobs	458,850	Sept. 1	470	113	56	1155
Title. Illuminating	C. W. Mark	456,045	July 14	1188	312	56	234
Title. Illuminating	C. W. Mark	456,046	July 14	1189	313	56	234
Title. Manufacturing	M. Scott	452,113	May 12	1079	273	55	785
Title molds. Core for drain	W. D. Sherman	461,453	Oct. 20	1430	361	57	291
Title-press	L. W. Nuebling	457,924	Aug. 18	1642	430	56	858
Title. Roofing	E. Bennett	449,397	Mar. 31	3468	874	54	1809
Title. Roofing	J. E. Donaldson and E. C. Elder	465,364	Dec. 15	2176	587 588	57	1567
Title. Roofing	E. C. Lindemann. (Reissue)	11,186	Aug. 25	2656	646	56	1058
Title-tamping machine	C. A. Carpenter	459,390	Sept. 15	1336	335	56	1342
Title-walls. Tie molding or binder for	C. J. Bogert	463,851	Nov. 24	2597	675	57	1077
Tiles, &c. Forming undercut projections and recesses in	H. L. Doulton and S. H. Leech	462,895	Nov. 10	1081	280 281	57	769
Tiles. Hardening and coloring alabaster	E. Topi	452,295	May 12	1365	340	55	840
Tiles. Lens for illuminating	P. H. Jackson	446,350	Feb. 10	1396	341	54	789
Tiling. Preparing a continuous and solid	L. Enricht	450,226	Apr. 14	959	238	55	191
Till-alarm	H. Garrett	459,442	Sept. 15	1416	355	56	1357
Till-lock	C. T. Jearles	448,962	Mar. 24	2745	692 693	54	1667
Till-lock	B. H. Mead	444,708	Jan. 13	1131	292	54	232
Tilting-chair	W. Schrage	446,080	Feb. 10	929	227	54	700
Timber-bending machine	W. Ranke and W. Yergens	447,202	Feb. 24	2801	692 693	54	1081
Timber, &c. Coating for	T. Pridham	453,821	June 9	1004		55	1346
Timber-hangers. Machine for making	J. Grant	445,149	Jan. 20	1886	487 488	54	384
Timber-hangers. Machine for making	J. Russell	445,007	Jan. 20	1661	425 426 427	54	340
Timber. Preserving	J. McKeon	461,365	Oct. 13	1284		57	256
Timbers. Clasp for connecting	H. A. Salisbury	448,082	Mar. 10	1321	338	54	1377
Time-alarm	S. E. Jones	459,402	Sept. 15	1356	339	56	1346
Time-alarm. Electric	J. J. Gallagher	448,712	Mar. 24	2368	592	54	1595
Time-call. Electric	R. Varley, Jr.	450,390	Apr. 14	1132	277	55	223
Time-denoting device. Electric	W. Ramsay	455,055	June 30	2952	751	55	1738
Time-keepers. Balance-staff for	J. E. Swarthout	457,681	Aug. 11	1226	315	56	770
Time-lock	G. W. Adams	454,897	June 30	2641	678	55	1678
Time-lock	G. J. H. Goehler	452,781	May 26	2150	541 542	55	1008

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Time-lock	P. F. King	450,293	Apr. 14	967	{ 240 241	55	192
Time-lock	J. White	459,618	Sept. 15	1703	426		1410
Time-lock attachment	C. W. Hain	466,135	Dec. 29	3429	878	57	1829
Time-lock. Electric	M. I. Flowers	446,967	Feb. 24	2387	594	54	1003
Time-lock. Electric	J. H. Kaiser and A. B. Ledwith	447,409	Mar. 3	225	58, 59	54	1160
Time-locks. Key for winding	J. W. See	464,189	Dec. 1	278	68	57	1187
Time-piece movement	G. E. Hunter and F. H. Corthell	455,046	June 30	2932	{ 746 747	55	1734
Time-pieces. Balance-wheel for	H. Bilgram	455,787	July 14	804	210		164
Time-pieces. Method of and apparatus for rating	C. E. Emery	451,181	Apr. 28	2378	{ 591 592 593	55	487
Time-recorder	F. E. Tyng	448,560	Mar. 17	2093	525	54	1535
Time-recorder. Watchman's	E. C. Gee	451,666	May 5	341	83, 84	55	643
Time-recorder. Watchman's	T. Hahn	466,166	Dec. 29	3472	887	57	1837
Time-recorder. Watchman's electric	F. W. Schiefer	461,279	Oct. 13	1137	290	57	227
Time-recorder. Workman's	W. L. Bundy	453,230	June 2	74	19, 20	55	1162
Time-recorder. Workman's	W. L. Bundy	452,894	May 26	2340	{ 590 591	55	1042
Time-recorder. Workman's	G. W. Clough	451,398	Apr. 28	2728	677		552
Time-recorder. Workman's	J. C. English	450,617	Apr. 21	1473	362	55	297
Time-recorder. Workman's	J. C. English	451,721	May 5	424	103	55	659
Time-recorder. Workman's	J. C. English	461,822	Oct. 27	2093	516	57	422
Time-recorder. Workman's	S. Hall	456,564	July 28	2011	331	56	408
Time-recorder. Workman's	G. W. Heene	461,478	Oct. 20	1531	375	57	308
Time register or indicator	T. J. Parkinson	452,728	May 19	2074	522	55	983
Time-signal	W. E. Gibb	464,016	Dec. 1	21	6	57	1140
Time-table	G. W. Lishawa	465,379	Dec. 15	2198	563	57	1571
Time-table or indicator. Adjustable	W. C. Klausner	457,204	Aug. 4	427	111	56	613
Tin. Apparatus for coating plates with	H. F. Taylor and W. P. Struvé	460,685	Oct. 6	249	61	57	50
Tin from tin scrap. Recovering	H. C. W. Harmsen	463,112	Nov. 10	1420	...	57	836
Tin from waste tin plate. Recovering	J. M. G. Bonnet	459,034	Sept. 8	764	186	56	1222
Tin or terne plates. Machine for cleaning	I. Davies	450,929	Apr. 21	1981	{ 486 487	55	400
Tinning plates. Apparatus for	H. F. Taylor and W. P. Struvé	453,304	June 2	191	52, 53		1183
Tinning sheet metal. Process of and apparatus for	S. Y. Buckman	471,261	Apr. 28	2528	623	55	515
Tintometer	J. W. Lovibond	451,828	May 5	552	144	55	690
Tire	H. Rohrer	460,185	Sept. 29	2583	644	56	1593
Tire. Bicycle	C. F. Jacobs	456,702	July 28	2241	594	56	463
Tire. Bicycle	W. Richwine	459,614	Sept. 15	1694	425	56	1408
Tire. Bicycle	L. D. Whittemore, Jr.	447,993	Mar. 10	1194	302	54	1351
Tire-bolt wrench	J. A. Ross	446,778	July 28	2377	625	56	478
Tire. Elastic wheel	A. Straus	453,520	June 2	536	138	55	1249
Tire for cycles	F. Gleason	451,477	May 5	48	12	55	588
Tire for cycles. Wheel	J. B. Dunlop. (Reissue)	11,153	Mar. 24	2252	748	54	1707
Tire for vehicle-wheels	J. H. Bingham	466,112	Dec. 29	3379	863	57	1819
Tire for vehicle-wheels	C. Challiner	449,281	Mar. 31	3245	{ 821 822	54	1770
Tire for vehicle-wheels	J. B. Dunlop	453,550	June 2	582	148		1258
Tire for vehicle-wheels	A. W. Thomas. (Reissue)	11,155	Apr. 7	708	178	55	138
Tire for vehicle-wheels. Rubber	A. H. Overman	450,816	Apr. 21	1822	442	55	370
Tire for vehicles. Rubber	A. Straus	449,502	Mar. 31	3637	915	54	1842
Tire for vehicles. Rubber	N. Yagn	452,001	May 12	866	221	55	750
Tire for wheels. Flexible	B. C. Foster	458,547	Aug. 25	2642	643	56	1056
Tire for wheels. Rubber	E. G. Hoffmann	463,153	Nov. 17	1485	385	57	856
Tire for wheels. Rubber	D. P. Jefferies and A. W. Grant	449,650	Mar. 31	3883	971	54	1887
Tire-gage	D. H. Jackman	451,053	Apr. 28	2188	540	55	448
Tire-heater	N. H. Cook	454,205	June 16	1536	404	55	1457
Tire-heater	J. H. Parks	459,112	Sept. 8	896	215	56	1247
Tire-heating device	C. H. Evans	461,095	Oct. 13	845	218	57	170
Tire-heating furnace	H. Asmus	451,103	Apr. 28	2254	558	55	463
Tire. Pneumatic	W. R. Foster	456,028	July 14	1168	306	56	230
Tire. Pneumatic	W. Heale	458,393	Aug. 25	2408	586	56	1011
Tire. Pneumatic	J. B. McCune	456,771	July 28	2370	623	56	476
Tire. Pneumatic	J. Moseley and B. Blundstone	462,013	Oct. 27	2385	591	57	479
Tire. Rubber	J. A. Turner	454,092	June 16	1374	358	55	1425
Tire. Rubber wheel	G. Ahlborn	456,751	July 28	2339	616	56	470
Tire-setters. Gage for	J. B. West	414,165	Jan. 6	307	74	54	62
Tire-setting machine	F. Heavener	464,302	Dec. 1	475	114	57	1225
Tire-setting machine	J. B. West	444,166	Jan. 6	309	74	54	63
Tire-setting machine	J. B. West	444,175	Jan. 6	324	79	54	66
Tire-shrinker	J. T. Kaylor, J. W. McComb, and W. T. Daniel	458,172	Aug. 25	2025	525	56	939
Tire-splicer. Adjustable	A. K. Stone	456,169	July 21	1366	363	56	279
Tire-tightener	L. P. Hewitt and S. W. Buence	446,269	Feb. 24	2221	552	54	974
Tire-tightener	W. Hogan	444,492	Jan. 13	810	210	54	169
Tire-tightener	T. J. Jones	462,355	Nov. 3	219	53	57	593
Tire-tightener	M. J. McKinnon	453,204	June 2	33	10	55	1155
Tire-tightener	A. M. Reeves	449,234	Mar. 31	3164	797	54	1755
Tire-tightener	C. Wendel and H. Wegner	460,275	Sept. 29	2728	679	56	1620
Tire-tightener	H. Widdows	447,390	Mar. 3	189	50	54	1154
Tire-tighteners, &c. Combination-tool for	J. E. Watts	459,802	Sept. 22	1992	501	56	1472
Tire. Vehicle-wheel	C. H. Gray	452,876	May 26	2303	522	55	1036
Tire. Vehicle-wheel	J. Sheldon, G. B. Lukin, and H. F. Baker	456,779	July 28	2378	{ 625 626	56	478
Tire. Vehicle-wheel	P. W. Tillinghast	450,952	Apr. 21	2024	500		409
Tire. Velocipede	L. A. Hill	459,363	Sept. 8	1279	315	56	1322
Tire. Wagon	H. Rohrer	460,184	Sept. 29	2582	644	56	1593
Tire. Wheel	W. E. Bartlett	448,793	Mar. 24	2493	624	54	1618
Tire. Wheel	B. Blundstone	458,142	Aug. 18	1972	511	56	922
Tire. Wheel	S. Elliott	464,014	Dec. 1	18	5	57	1140
Tire. Wheel	T. B. Jeffery	444,069	Jan. 6	142	35	54	31
Tire. Wheel	H. Myers	456,705	July 28	2247	595	56	454

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Tire. Wheel.....	T. B. Jeffery.....	454,115	June 16	1402	366	55	1430
Tire. Wheel.....	H. Myers.....	459,015	Sept. 8	733	178	56	1216
Tire. Wheel.....	S. J. Rose.....	459,335	Sept. 8	1238	304	56	1314
Tire. Wheel.....	T. H. Specht and J. Broenen.....	457,569	Aug. 11	1061	271	56	740
Tires and felloes of wheels of road-vehicles. Machine for drilling the.....	J. Fiske.....	446,856	Feb. 24	2195	{ 546 547 }	54	970
Tires. Manufacture of blooms for rolled-steel.....	J. Munton.....	464,077	Dec. 1	109	27	57	1158
Tires. Setting.....	C. W. Cotton.....	453,756	June 9	908	236	55	1327
Tissue. Impervious.....	F. Salathé.....	452,762	May 19	2134	.....	55	995
Toast-cutter.....	H. J. Lystad.....	462,055	Oct. 27	2449	606	57	491
Toaster.....	H. S. Jenne.....	462,048	Oct. 27	2436	604	57	489
Toaster.....	W. S. McMillan.....	456,215	July 21	1533	407	56	310
Tobacco and other substances. Machine for cutting.....	H. Winterwerber.....	447,095	Feb. 24	2597	{ 644 645 }	54	1043
Tobacco bag or pouch.....	W. J. Cussen.....	445,881	Feb. 3	606	149	54	631
Tobacco-box.....	J. Lewis.....	447,615	Mar. 3	558	138	54	1223
Tobacco-box. Wooden.....	J. M. Baker.....	451,549	May 5	156	38	55	609
Tobacco-case.....	P. F. and A. E. MaGee.....	456,580	July 28	2036	538	56	413
Tobacco-case. Pocket.....	F. J. Hubbard and J. Potter.....	461,578	Oct. 20	1688	413	57	338
Tobacco-casing apparatus.....	J. C. Frost.....	446,441	Feb. 17	1553	381	54	832
Tobacco. Curing.....	W. H. Snow.....	448,595	Mar. 17	2156	.....	54	1547
Tobacco-cutter.....	T. Harding and E. James.....	457,531	Aug. 11	1000	256	56	727
Tobacco-cutter. Pocket.....	H. T. Reed.....	448,672	Mar. 24	2297	576	54	1580
Tobacco-cutting machine.....	G. Le Clair.....	460,341	Sept. 29	2532	704	56	1641
Tobacco-cutting machine.....	G. E. Le Clair.....	457,402	Aug. 11	799	206	56	689
Tobacco. Device for making plug.....	H. C. Hatcher.....	463,151	Nov. 17	1483	385	57	855
Tobacco-drier.....	R. W. Coffee.....	452,902	May 26	2353	595	55	1045
Tobacco-drier.....	W. B. Marks.....	465,382	Dec. 15	2202	564	57	1572
Tobacco for cigar-bunches. Machine for preparing filler.....	H. Schmidt, A. Merunka, and C. Werner.....	459,416	Sept. 15	1377	{ 345 346 }	56	1350
Tobacco gum or retainer.....	J. T. Ashworth.....	448,746	Mar. 24	2422	606	54	1605
Tobacco-handling apparatus.....	R. B. Dula.....	460,001	Sept. 22	2296	576	56	1530
Tobacco-hanger.....	I. Reich.....	447,699	Mar. 3	675	168	54	1246
Tobacco-hanger.....	W. J. Sculthorp.....	447,242	Feb. 24	2875	714	54	1096
Tobacco. Hanging.....	F. R. Warren.....	454,097	June 16	1379	360	55	1426
Tobacco-knife.....	P. J. Bernard.....	449,031	Mar. 24	2249	724	54	1687
Tobacco-knife.....	W. S. Terrell.....	457,385	Aug. 11	779	200	56	685
Tobacco-laths. Device for supporting.....	F. Pyre.....	461,274	Oct. 13	1128	288	57	924
Tobacco-leaves. Machine for removing stems from.....	R. W. Coffee.....	446,811	Feb. 17	2112	{ 525 526 }	54	944
Tobacco-leaves. Treating.....	W. E. Johns.....	457,029	Aug. 4	145	35	56	561
Tobacco. Machine for treating leaf.....	R. W. Coffee.....	445,270	Jan. 27	2079	{ 536 537 }	54	429
Tobacco-package.....	T. J. Maloney.....	453,264	June 2	133	26	55	1173
Tobacco-package and wrapper for the same.....	T. J. Maloney.....	452,100	May 12	1075	272	55	784
Tobacco-packing machine.....	I. T. Hardy.....	452,703	May 19	2031	509	55	975
Tobacco-pail cover.....	N. E. Neustadt.....	464,931	Dec. 8	1407	355	57	1413
Tobacco-pipe.....	T. Anderson.....	458,149	Aug. 25	1989	515	56	933
Tobacco-pipe.....	J. Laubhoff.....	459,077	Sept. 8	830	201	56	1233
Tobacco-pipe.....	G. Stresenmann.....	459,770	Sept. 22	1945	490	56	1464
Tobacco-pipe attachment.....	F. J. Schmehr.....	456,856	July 28	2511	658	56	501
Tobacco-pipes or cigar-holders. Mouth-piece for.....	M. L. Schoch.....	459,730	Sept. 15	1883	474	56	1445
Tobacco-pouch.....	W. J. Cussen.....	444,291	Jan. 6	491	128	54	98
Tobacco-pouch.....	W. J. Cussen.....	444,292	Jan. 6	492	128	54	98
Tobacco-pouch.....	W. J. Cussen.....	444,293	Jan. 6	493	129	54	98
Tobacco-pouch.....	W. J. Cussen.....	447,103	Feb. 24	2609	648	54	1046
Tobacco-pouch.....	W. J. Cussen.....	463,597	Nov. 17	2197	579	57	993
Tobacco-prize.....	J. H. Crow.....	450,576	Apr. 14	1391	343	55	275
Tobacco-racks. Machine for cleaning.....	R. B. Dula.....	460,002	Sept. 22	2297	576	56	1530
Tobacco-resweating device.....	E. B. Dula.....	460,003	Sept. 22	2299	576	56	1531
Tobacco-smoking mixture.....	B. Martin.....	457,464	Aug. 11	894	231	56	706
Tobacco-smoking mixture.....	H. Bingham.....	445,438	Jan. 27	2312	.....	54	478
Tobacco-spraying machine.....	J. T. Carter.....	446,247	Feb. 10	1237	{ 302 303 }	54	757
Tobacco-stemming machine.....	R. W. Coffee.....	445,637	Feb. 3	186	50, 51	54	548
Tobacco-stick.....	T. H. Ellington.....	449,469	Mar. 31	3595	905	54	1833
Tobacco-stringer.....	B. S. Kearney.....	446,231	Feb. 10	1188	291	54	747
Tobacco stripping and booking machine.....	J. R. Williams.....	449,394	Mar. 31	3461	{ 871 872 }	54	1808
Tobacco substitute.....	L. H. Miller.....	448,925	Mar. 24	2690	.....	54	1656
Toe-nails. Protector for ingrowing.....	S. S. Marley.....	465,870	Dec. 29	2971	759	57	1739
Toe-weight.....	J. G. Henderson.....	456,146	July 21	1332	353	56	272
Toe-weight.....	J. V. Mitchell.....	463,638	Nov. 24	2271	598	57	1016
Toe-weight.....	J. A. Newsome.....	451,511	May 5	101	25	55	598
Toe-weight and quarter-boot fastener.....	O. J. Sefton.....	444,923	Jan. 6	64	17	54	15
Toe-weight for horses.....	H. Armstrong.....	457,502	Aug. 11	962	244	56	719
Toe-weight for horses.....	H. E. Long.....	450,826	Apr. 21	1834	445	55	371
Toilet-cabinet.....	J. E. Griffiths.....	457,270	Aug. 4	545	143	56	633
Toilet-cabinet and refrigerator combined.....	W. Tweeddale.....	451,346	Apr. 28	2653	657	55	539
Toilet-case.....	W. C. Moore and W. E. Garrard.....	448,663	Mar. 24	2282	572	54	1578
Toilet-comb.....	E. Lawson.....	450,162	Apr. 14	759	192	55	154
Toilet cream.....	K. Conway.....	444,743	Jan. 13	1200	.....	54	243
Toll-box. Automatic.....	I. H. Farnham.....	451,922	May 12	742	187	55	726
Tombstones. Making concrete.....	N. C. Cameron.....	461,542	Oct. 20	1635	399	57	328
Tongs and pinches. Combined.....	W. F. Williamson.....	463,563	Nov. 17	2136	564	57	982
Tongs and wrenches. Bench-clamp for pipe.....	C. V. Greenmayer.....	444,778	Jan. 13	1251	324	54	252
Tongs. Fire.....	R. M. Bruce.....	463,887	Nov. 24	2600	693	57	1088
Tongs. Metal-worker's.....	H. Wilkins.....	464,759	Dec. 8	1168	291	57	1366
Tongs or pliers.....	E. W. Pearson and T. E. Barlett.....	459,818	Sept. 22	2024	507	56	1479
Tongs. Pipe.....	W. Dittick.....	465,558	Dec. 22	2494	637	57	1638
Tongs. Pipe.....	G. W. Johnson.....	460,015	Sept. 22	2317	580	56	1534
Tongs. Pipe.....	B. W. Perrigo and A. A. Swift.....	462,583	Nov. 3	575	140	57	661
Tongs. Pipe.....	C. F. Sperry.....	444,923	Jan. 20	1531	393	54	315
Tongs. Pipe.....	C. F. Sperry.....	466,195	Dec. 29	3513	899	57	1844

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Tongs. Roofing.	H. Beirwirth, Jr.	460,627	Oct. 6	151	37	57	32
Tongue attachment.	O. J. Snyder	446,237	Feb. 10	1223	299	54	754
Tongue for earth-scrapers.	S. E. Licklider	450,912	Apr. 21	1963	481	55	397
Tongue for vehicles. Folding	A. S. Gilkey	463,274	Nov. 17	1679	438	57	893
Tongue. Harvester.	J. S. Davis	457,185	Aug. 4	387	99 100	56	607
Tongue-support.	C. Behringer	465,913	Dec. 29	3049	781	57	1755
Tongue-support.	J. H. Cassidy	458,690	Sept. 1	223	52	56	1108
Tongue-support.	T. C. Churchman	456,018	July 14	1156	303	56	227
Tongue-support.	C. E. Davis and C. Lewis, Jr.	465,355	Dec. 15	2165	554	57	1564
Tongue-support.	C. F. Haldeman	451,480	May 5	53	13	55	589
Tongue-support.	J. H. Jordan and J. M. Cook	448,433	Mar. 17	1913	481	54	1500
Tongue-support.	J. W. Lindquist	445,024	Jan. 20	1681	432	54	344
Tongue-support.	W. D. Napier	446,152	Feb. 10	1056	259	54	723
Tongue-support.	D. Z. Yoder	465,744	Dec. 22	2776	708	57	1693
Tongue support. Vehicle.	G. Allen and J. Sandhofer	456,321	July 21	1611	426	56	325
Tongue support. Wagon.	T. H. Ink	459,731	Sept. 15	1884	474	56	1445
Tongue. Wagon.	W. H. Benford	459,356	Sept. 8	1271	313	56	1320
Tonic remedy.	C. Schmidt and A. R. Ledet	461,716	Oct. 20	1909		57	379
Tool and holder. Combination.	F. Buck and O. Konigsloew	450,596	Apr. 14	1430	352	55	281
Tool and work holder. Eccentric.	A. Johnson	450,234	Apr. 14	883	219 220	55	176
Tool. Combination.	S. G. Arnold	454,017	June 16	1267	329	55	1405
Tool. Combination.	W. D. Arnot	456,189	July 21	1398	371	56	285
Tool. Combination.	E. A. Cochran	461,402	Oct. 13	1343	340	57	269
Tool. Combination.	C. F. Hill	465,560	Dec. 22	2495	637	57	1638
Tool. Combination.	T. W. Southard	453,387	June 2	317	83	55	1207
Tool. Combined.	A. L. Daly	457,526	Aug. 11	988	253	56	725
Tool. Compound.	J. Caldwell	445,972	Feb. 10	746	183	54	668
Tool cutting, sharpening, and polishing apparatus.	E. P. MacLean	451,509	May 5	99	24	55	598
Tool-handle.	J. W. Cheney	453,622	June 9	707	183	55	1290
Tool-handle.	R. W. Jeffers	453,595	June 2	650	167	55	1271
Tool-handle.	A. H. Maynard	460,544	Sept. 29	3150	787	56	1703
Tool-handle attachment.	E. W. Fant, W. B. Anderson, and S. W. Richard	447,052	Feb. 24	2534	630	54	1031
Tool-handle fastening.	D. Lumbert	460,829	Oct. 6	457	115	57	91
Tool-handle fastening.	J. Weiss	447,707	Mar. 3	687	170	54	1248
Tool-handle. Rotary.	J. F. Steward	460,256	Sept. 29	2684	669	56	1613
Tool-handles. Device for securing	M. Daily	445,976	Feb. 10	752	184	54	669
Tool-handles. Device for securing.	I. L. Landis	450,944	Apr. 21	2001	493	55	404
Tool-holder	U. Eberhardt	455,391	July 7	151	38	56	32
Tool-holder	G. M. Githens	462,483	Nov. 3	415	101	57	629
Tool-holder	E. C. Heydenreich	455,101	June 30	3032	770	55	1754
Tool-holder	L. B. Nielsen	450,031	Apr. 7	570	142	55	110
Tool-holder	S. L. Worsley	459,807	Sept. 22	1999	503	56	1474
Tool-holder. Boring.	S. P. Graham	449,246	Mar. 31	3182	803	54	1759
Tool holding and operating device. Pneumatic	F. J. Lann	450,782	Apr. 21	1755	426	55	358
Tool or implement. Folding.	E. H. Meehan	456,221	July 21	1446	383	56	293
Tool. Pneumatic	D. Drawbaugh	458,291	Aug. 25	2234	546 547	56	978
Tool-post.	A. Newell	446,462	Feb. 17	1584	389	54	840
Tool. Reciprocating.	C. E. Lipe	460,089	Sept. 22	2435	609	56	1557
Tools. Device for the automatic rotation of	H. Mager	456,152	July 21	1341	356	56	274
Tools. Making.	E. Thomson	461,856	Oct. 27	2134	526	57	431
Tools. Making dies for threading.	W. L. Dixon	451,890	May 5	672	170	55	706
Tooth. Artificial.	J. S. Campbell	465,457	Dec. 22	2314	594	57	1604
Tooth. Artificial.	J. S. Campbell	465,458	Dec. 22	2315	594	57	1605
Tooth. Artificial.	J. S. Campbell	465,459	Dec. 22	2316	595	57	1605
Tooth. Artificial.	J. S. Campbell	465,460	Dec. 22	2318	595	57	1605
Tooth. Artificial.	A. C. Fones	455,450	July 7	241	62	56	49
Tooth. Artificial.	A. Page and S. S. Bloom	445,230	Jan. 27	2015	519	54	418
Tooth. Artificial.	A. Page and S. S. Bloom	445,231	Jan. 27	2016	519	54	418
Tooth. Artificial.	J. Payne	461,844	Oct. 27	2122	523	57	428
Tooth. Artificial.	T. O. Payne	453,703	June 9	838	217	55	1314
Tooth. Artificial.	T. H. Schmitz	454,297	June 16	1671	438	55	1484
Tooth. Artificial.	E. C. Taylor	451,959	May 12	796	201	55	737
Tooth. Artificial.	J. F. Wright	448,745	Mar. 24	2421	605	54	1605
Tooth-cleaner.	E. Schulze	463,309	Nov. 17	1733	453	57	904
Tooth-crown. Artificial	C. S. Wiggins	452,533	May 19	1768	445	55	923
Tooth-pick.	C. C. Freeman	448,647	Mar. 24	2260	567	54	1573
Tooth-powder box.	I. W. Lyon	445,067	Jan. 20	1755	452	54	359
Tooth-powder box.	A. H. Stoddard and W. P. Cooke	456,709	July 28	2254	596	56	456
Tooth-seat.	E. E. Whipple	445,104	Jan. 20	1810	467	54	369
Top.	G. Haag	453,473	June 2	469	121	55	1237
Top. Air spinning.	L. Leeb	466,172	Dec. 29	3480	889	57	1838
Top. Detonating.	E. D. Pike	457,520	Aug. 11	982	251	56	723
Top roll.	A. A. Andrews	455,434	July 7	219	56	56	45
Top. Spinning.	L. J. Jimenez	455,104	June 30	3035	771	55	1755
Top-spinning pistol.	I. N. Phipps	458,483	Aug. 25	2545	620	56	1036
Torch.	A. Dutton	462,692	Nov. 10	753	197	57	704
Torch and oiler. Combined.	H. M. Turner	464,839	Dec. 8	1280	321	57	1389
Torch-lamp for firemen and petrolmen	A. Prier	444,767	Jan. 13	1238	321	54	250
Torch. Signal.	P. W. Shephard	462,596	Nov. 3	592	146	57	665
Torpedo-boat.	J. Ambrose	464,909	Dec. 8	1381	348	57	1408
Torpedo-dropping gear. Universal.	C. Dann	455,472	July 14	731	192 193	56	149
Torpedo. Electrically propelled and steered	W. S. Sims	450,875	Apr. 21	1914	470	55	387
Torpedo-guard.	J. Lynch and T. Midgley	463,262	Nov. 17	1662	434	57	890
Torpedo. Marine.	N. J. Halpine	453,861	June 9	1047	274	55	1655
Torpedo. Marine.	J. A. Howell	458,677	Sept. 1	203	47, 48	56	1104
Torpedo. Marine.	A. W. Savage	456,278	July 21	1539	409	56	311
Torpedo. Marine.	A. W. Savage	456,524	July 21	1951	514	56	388
Torpedo-placer.	S. D. Edgar	463,858	Nov. 24	2610	679	57	1080
Torpedo-placer.	G. W. Peifer, Jr., and R. Johnston.	462,992	Nov. 10	1227	319	57	797

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Towel-holder	E. G. Gaillac	451,182	Apr. 28	2401	593	55	489
Towel-holder	L. H. Redfield	464,108	Dec. 1	152	37	57	1166
Towel-rack	J. A. Murray	461,446	Oct. 20	1418	358	57	289
Tower	L. W. Noyes	457,819	Aug. 18	1456	{ 379 380 }	56	824
Tower	T. Reichard	447,477	Mar. 3	355	88	54	1184
Tower and mast	F. L. Butler	449,730	Apr. 7	133	33, 34	55	28
Tower. Metal	W. C. Westaway	455,424	July 7	204	52	56	42
Toy	G. V. Barnes	465,071	Dec. 15	1674	426	57	1473
Toy	E. F. Blythe	453,034	May 26	2569	650	55	1088
Toy	C. E. Coe	465,162	Dec. 15	1840	467	57	1503
Toy	M. Cohn	454,254	June 16	1603	421	55	1470
Toy	E. Del Valle	447,284	Feb. 24	2943	731	54	1111
Toy	F. H. Harris	459,580	Sept. 15	1638	410	56	1398
Toy	E. Kronenberg	459,140	Sept. 8	936	225	56	1255
Toy	O. B. Law	459,868	Sept. 22	2102	528	56	1495
Toy	C. J. Letzing	453,411	June 2	375	96	55	1217
Toy	C. A. Mable	451,369	June 16	1778	463	55	1503
Toy	J. M. McMaster	447,411	Mar. 3	230	59	54	1160
Toy	A. Miklas	453,201	June 2	31	9	55	1155
Toy	C. S. Morris	448,539	Mar. 17	2066	517	54	1530
Toy	A. Pugsley	450,495	Apr. 14	1292	316	55	254
Toy	E. P. Roberts	449,748	Apr. 7	161	40	55	33
Toy	A. D. Rowe	465,950	Dec. 29	3104	794	57	1765
Toy	R. Sebrke	456,251	July 21	1503	400	56	304
Toy	S. F. Simpson	447,164	Feb. 24	2740	678	54	1069
Toy	W. V. Snyder	453,673	June 9	778	201	55	1303
Toy	E. H. Truman	463,468	Nov. 17	1988	520	57	953
Toy and advertising device	F. H. Smith	464,679	Dec. 8	1033	259	57	1342
Toy animal	G. Scheler	450,195	Apr. 14	803	203	55	163
Toy apparatus	G. A. Spence	457,593	Aug. 11	1100	281	56	747
Toy ball. Loaded	C. E. Goodspeed	454,544	June 23	2057	532	55	1564
Toy bank	J. Murray	462,150	Oct. 27	2597	646	57	519
Toy bank. Registering	C. P. Booth	454,839	June 30	2540	654	55	1659
Toy bank. Registering	E. Headley and W. G. Horton	450,071	Apr. 7	620	157	55	120
Toy bank. Registering	W. B. Whitney	465,226	Dec. 15	1935	492	57	1522
Toy bell	N. N. Hill	455,943	July 14	1033	270	56	206
Toy bowling-alley	J. R. Pettit	458,066	Aug. 18	1861	485	56	900
Toy bridge	H. C. Zenke	447,422	Mar. 3	243	62	54	1163
Toy buzzer	G. T. Fallis	447,638	Mar. 3	594	147	54	1229
Toy. Coin-controlled	E. F. Muddock	461,363	Oct. 13	1278	{ 324 325 }	57	255
Toy detonator	A. L. Seymour	449,706	Apr. 7	95	25	55	21
Toy detonator	H. H. Wesler	450,345	Apr. 14	1062	261	55	210
Toy. Electrical walking	J. B. Kibler	455,545	July 7	398	104	56	77
Toy fence	W. Windus	444,681	Jan. 13	1099	284	54	225
Toy. Figure	W. Church	457,397	Aug. 11	792	204	56	688
Toy. Figure	H. Y. Dickinson	444,088	Jan. 6	170	43	54	46
Toy. Figure	G. Y. S. Wada	463,927	Nov. 24	2728	708	57	1100
Toy. Figure	H. Wolke	464,746	Dec. 8	1148	285	57	1362
Toy fire-engine house	E. R. Ives	454,651	June 23	2243	576	55	1596
Toy fishing apparatus	I. Samuels	464,391	Dec. 1	599	148	57	1248
Toy game	F. W. Batdorf	441,112	Jan. 6	212	51	54	43
Toy gravity railway	H. Broomell	465,238	Dec. 15	1951	498	57	1526
Toy gun	C. A. Ellis	446,333	Feb. 10	1373	335	54	784
Toy gun. Repeating	W. J. Buchanan	461,257	Oct. 13	1103	281	57	220
Toy. Jumping	W. A. Warner	455,079	June 30	2998	762	55	1748
Toy. Magnetic	G. A. Goodson	464,611	Dec. 8	922	227	57	1321
Toy. Mechanical	F. Cossin	454,927	June 30	2718	693	55	1693
Toy. Mechanical	H. Hargreaves	445,554	Feb. 3	42	11	54	519
Toy money-bank. Registering	A. L. Ives and C. A. Hotchkiss	445,754	Feb. 3	393	100	54	591
Toy money-box	J. H. Bowen	450,833	Apr. 21	1845	449	55	373
Toy money-box	A. Fleming	466,032	Dec. 29	3266	833	57	1796
Toy mortar	E. P. Eastwick, Jr.	455,184	June 30	3178	805	55	1782
Toy. Musical	A. L. Brown	446,201	Feb. 10	1142	279	54	737
Toy. Musical	W. A. Gay	464,863	Dec. 8	1314	329	57	1395
Toy musical instrument	W. J. Broadbent	456,884	July 28	2554	671	56	509
Toy musical instrument	F. W. Crandall	452,835	May 26	2239	562	55	1024
Toy or device. Educational	M. H. Rowland	462,997	Nov. 10	1234	321	57	798
Toy or game	E. J. Bond	446,054	Feb. 10	894	217	54	693
Toy or puzzle	P. J. Hogan	460,014	Sept. 22	2315	5-0	56	1534
Toy parachute	C. Dillenback	456,944	Aug. 4	35	7	56	539
Toy parachute	W. F. Flebarty	450,565	Apr. 14	1378	340	55	272
Toy parachute	S. W. Kelley	444,441	Jan. 13	719	188	54	150
Toy pin-wheel	W. Murphy	454,804	June 23	2470	635	55	1640
Toy pistol	W. F. Folmer and W. E. Schwing	451,554	May 5	165	40	55	611
Toy pistol	R. Frisbie	458,548	Aug. 25	2643	643	56	1056
Toy pistol	J. Good	455,099	June 30	3027	769	55	1753
Toy pistol	T. C. Murray	449,781	Apr. 7	216	55	55	44
Toy puzzle	W. W. Brown	447,631	Mar. 3	585	144	54	1228
Toy. Puzzle	K. Müller and M. Woodbridge	459,233	Sept. 8	1076	263	56	1281
Toy savings-bank. Registering	S. Snellenburg and C. P. Booth	454,886	June 30	2627	673	55	1675
Toy. Soap-bubble	W. C. Farrand	445,807	Feb. 3	502	121	54	610
Toy. Sounding	A. Decœur	457,250	Aug. 4	527	138	56	630
Toy. Sounding	D. M. Murphy	465,066	Dec. 15	1670	425	57	1472
Toy. Sounding	D. W. Watrous	449,146	Mar. 31	3034	767	54	1731
Toy swing	D. L. Keeler	449,938	Apr. 7	439	109	55	86
Toy target	W. H. Reiff	451,725	May 5	432	105	55	661
Toy. Wheeled	C. L. Wiedrich	463,783	Nov. 24	2488	649	57	1056
Toy. Wind	J. R. Zuberbühler	463,565	Nov. 17	2142	566	57	983
Trace-carrier	S. J. Barton	454,562	June 23	2081	537	55	1568
Trace-carrier	W. A. Parr	453,309	June 2	199	54	55	1185
Trace-carrier	J. A. Sheffield	461,284	Oct. 13	1143	291	57	928
Trace-coupling	R. C. Williamson	460,806	Oct. 6	425	105	57	85

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Trace-fastener	W. H. Hufford	466,241	Dec. 29	3579	915	57	1857
Track-cleaner	H. G. Brakensiek	458,215	Aug. 25	2090	541	56	951
Track cleaner. Car	J. E. Chambers	461,735	Oct. 20	1935	480	57	384
Track-cleaner. Rotary	N. Newman	457,324	Aug. 4	641	168	56	652
Track-clearer	M. Leary	454,484	June 23	1960	511	55	1546
Track-clearer	G. Nevens	462,728	Nov. 10	804	210	57	715
Track clearer and lubricator	T. J. King	449,856	Apr. 7	324	83	55	65
Track clearing and lubricating device	T. J. King	449,855	Apr. 7	321	83	55	64
Track-fastener	F. S. Ketchum	453,886	June 9	1085	283	55	1362
Track-gage	S. W. Bransford	458,012	Aug. 18	1787	467	56	885
Track-gage	C. C. De Camp	460,467	Sept. 29	3008	753	56	1674
Track-layer	H. Birkby	447,754	Mar. 10	772	191 192	54	1271
Track. Suspended	J. and V. L. Ney	465,387	Dec. 15	2210	567	57	1573
Track-sweeper	W. H. Briggs	445,219	Jan. 27	2001	515	54	415
Traction-device	W. E. Prall	457,794	Aug. 18	1419	368	56	617
Traction-engine	J. Beckner	452,592	May 19	1857	467 468	55	941
Traction-engine	J. H. Crumb	451,811	May 5	555	137 138	55	685
Traction-engine	N. L. Darling	451,648	May 5	312	76	55	638
Traction-engine	C. Higgins and J. Gregory	460,375	Sept. 29	2882	719	56	1650
Traction-engine	H. B. McMurray	455,240	June 30	3256	826	55	1798
Traction-engine	G. G. Schroeder	447,978	Mar. 10	1168	296 297	54	1346
Traction-engine	J. M. Snelser	455,889	July 14	956	250	56	192
Traction-engine for making ice roads and hauling logs	G. T. Glover	455,394	July 7	154	39	56	33
Traction-engine or road-roller	M. E. Hershey	444,980	Jan. 20	1621	414	54	332
Traction-engine. Walking	E. M. Knollin	461,441	Oct. 20	1409	355 356	57	287
Traction-roads. Rait and road-bed for	J. J. Miller	454,179	June 16	1499	393	55	1449
Traction-wheel	I. N. Dick	455,481	July 7	287	73	56	58
Traction-wheel	E. O. Doak	458,290	Aug. 25	2232	546	56	977
Traction-wheel	G. R. Duval	450,484	Apr. 14	1274	311	55	249
Tractor for making ice roads and hauling logs	G. T. Glover	463,679	Nov. 24	2334	612 613	57	1027
Traffic. Terminal station for handling rapid-transit passenger	A. P. Massey	459,855	Sept. 22	2078	522	56	1490
Train-order holder	C. E. Biddison	456,009	July 14	1136	298	56	224
Train-signal	H. J. Finn and J. A. Garner	449,672	Apr. 7	39	10	55	10
Train-signal. Electric	J. B. Strauss	463,395	Nov. 17	1884	491	57	932
Trains. Method of and apparatus for the propulsion of	J. B. Mahana	464,342	Dec. 1	527	128	57	1234
Tram-engine	W. de Sanno	453,092	May 26	2674	674	55	1108
Tiam or leveling device for leveling or tramming rolls. Test	J. P. Adams	446,764	Feb. 17	2041	509	54	929
Tramway	L. M. Brock	459,879	Sept. 22	2121	533	56	1498
Tramway	J. M. Price	462,063	Oct. 27	2456	609	57	493
Tramway	J. F. Vinton	453,095	May 26	2678	675	55	1109
Tramway. Aerial	A. H. De Camp	460,567	Oct. 6	37	9	57	9
Tramway-rail joint	A. H. De Camp	450,614	Apr. 21	1469	361	55	296
Tramway-switch	C. A. Beach	450,607	Apr. 21	1454	357	55	293
Tramway-switch	C. A. Beach	450,543	July 28	1983	523	56	403
Tramway-switch	S. Goodhue	451,760	May 5	469	121	55	671
Tramway-switch	W. Hosier	453,775	June 9	944	244 245	55	1335
Tramway system. Compressed-air	F. H. Richards	452,051	May 12	957	244	55	766
Tramway system. Compressed-air	F. H. Richards	452,052	May 12	959	244 245	55	766
Tramways. Bucket-clip for wire-rope	C. T. Finlayson	444,408	Jan. 6	668	174	54	132
Tramways or railways. Rolling-stock for	C. Zepernowsky	445,583	Feb. 3	103	21, 25	54	531
Trammel-head	R. G. Hausdorfer	447,642	Mar. 3	602	148	54	1231
Transformer	E. Thomson	454,090	June 16	1371	357	55	1424
Transformer. Adjustable	E. Thomson	461,526	Oct. 20	1610	394	57	323
Transformer and armature-core	C. E. Kaumeyer	464,026	Dec. 1	34	10	57	1143
Transformer-motor	O. T. Bláthy	464,671	Dec. 8	1021	255 256	57	1340
Transit-instrument	C. Sutphen	444,602	Jan. 13	973	252	54	201
Transmitter-circuit	A. C. White	447,220	Feb. 24	2835	703	54	1088
Transmitting mechanism. Variable	J. Riddell	464,895	Dec. 8	1361	342	57	1404
Transom-lifter	J. L. Baker	447,174	Feb. 24	2754	681	54	1072
Transom-lifter	G. W. Hamilton	446,665	Feb. 24	2211	549 550	54	972
Transom-lifter	R. F. Hatfield	463,051	Nov. 10	1311	339	57	814
Transom-lifter	O. Lund	449,800	Apr. 7	244	62	55	49
Transom-lifter	L. Monat, Jr	451,698	May 5	389	95	55	653
Transom-lifter	W. Ormsby	466,081	Dec. 29	3334	851	57	1810
Transom-lifter	A. L. Pennoek	449,429	Mar. 31	3527	888	54	1820
Transom-lock	A. Eckert	452,777	May 26	2155	540	55	1007
Transom-operator	G. J. Dickson	463,141	Nov. 17	1466	381	57	853
Transplanter	J. O. Bender	461,519	Oct. 20	1600	391	57	321
Transplanter	G. S. Gunderson	463,190	Nov. 17	1545	403	57	867
Transplanter	T. Sullivan	461,878	Oct. 27	2175	536 537	57	439
Transplanter	G. A. Whitmore	456,209	July 21	1427	378	56	290
Transplanter. Plant	C. T. Fountain	452,181	May 12	1197	303	55	807
Transplanting-machine	J. R. Mole	461,920	Oct. 27	2253	557	57	454
Transplanting-pot	J. W. McAlpin	451,064	Apr. 28	2201	544	55	451
Transportation. Elevated	S. G. Randall	453,939	June 9	1155	301 302	55	1376
Transportation. Method of	W. C. Andrews	449,102	Mar. 31	2960	750	54	1718
Transportation. Method of and apparatus for	P. E. McDonnell	446,786	Feb. 17	2066	515	54	934
Transportation. Method of and means for	W. S. Johnson	461,535	Oct. 20	1624	397	57	325
Transportation system. Electric	S. S. Wheeler and C. S. Bradley	448,598	Mar. 17	2167	541 542	54	1548

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Transporting-receptacle	L. P. Rogers and J. Hofman	450,330	Apr. 14	1017	251	55	202
Transporting-receptacle	L. P. Rogers and J. Hofman	450,321	Apr. 14	1019	252	55	202
Trap:							
See Animal-trap. Mole-trap.							
Ant-trap. Mosquito-trap.							
Ball-trap. Plumber's trap.							
Burglar or animal Rat-trap.							
trap. Roach-trap.							
Dumping-trap. Roach and insect trap.							
Fly-trap. Self-setting trap.							
Gopher-trap. Sewer-trap.							
Grease-trap. Sink-trap.							
Hog-trap. Steam-trap.							
Impalement-trap. Stench-trap.							
Insect-trap. Target-trap.							
Trap	D. M. Ireland	451,973	May 12	817	208	55	741
Trap for bath-tubs, &c.	W. E. Delehanty	462,305	Nov. 3	140	34, 35	57	577
Trap for water-basins, &c.	W. E. Delehanty	462,304	Nov. 3	139	34	57	577
Trap for waste-water pipes.	J. H. King	465,820	Dec. 22	2885	738	57	1715
Traps. Inserting springs in.	E. S. Hotchkiss	449,534	Mar. 31	3680	925	54	1850
Traps. Method of and apparatus for making lead-pipe S-	W. W. Rosenfield	454,186	June 16	1509	396	55	1452
Tray	A. Wiggers	447,221	Feb. 24	2838	703	54	1088
Treadle	R. Frisbey	457,315	Aug. 4	619	163	56	648
Treadle. Pendulum-bar	E. A. Cochran	453,963	June 9	1184	309	55	1382
Tree-prop. Extensible	G. F. Andrews	445,151	Jan. 27	1896	489	54	395
Tree-protector	C. F. Geries	445,887	Feb. 3	613	151	54	632
Tree-protector	W. S. Knapp	464,879	Dec. 8	1339	336	57	1400
Tree protector. Fruit	D. Cripps	445,048	Jan. 20	1728	445	54	353
Tree protector. Fruit	W. T. Yandow	448,738	Mar. 24	2411	603	54	1602
Trees. Cultivating fruit	T. Crakes	446,662	Feb. 17	1881	467	54	897
Trees. Machine for budding	W. M. Rowell	449,591	Mar. 31	3772	946	54	1866
Trestle	J. and J. Melcher	453,200	June 2	29	9	55	1155
Trestle	T. J. Peck	462,581	Nov. 3	571	139	57	660
Tricycle	J. Carter	450,001	Apr. 7	528	{ 131 132 }	55	102
Tricycle	S. Elliott	446,670	Feb. 17	1890	{ 469 470 }	54	899
Tricycle	S. Elliott	446,671	Feb. 17	1893	470	54	900
Tricycle	F. J. Kessler	461,207	Oct. 13	1027	260	57	203
Tricycle	D. L. Klahr	447,331	Mar. 3	79	21, 22	54	1133
Tricycle	A. Mendenhall	453,151	May 26	2763	696	55	1124
Tricycle	F. Newhouse	462,086	Oct. 27	2485	617	57	498
Tricycle	G. Pinkert	463,283	Nov. 17	1687	441	57	895
Tricycle	L. Swanson	461,289	Oct. 13	1153	294	57	230
Trigger. Set	O. A. Bremer	446,912	Feb. 24	2306	573	54	989
Trigonometer	R. Brotherhood	462,234	Nov. 3	15	3, 4	57	555
Trimmer:							
See Hedge-trimmer. Rotary trimmer.							
Heel-seat trimmer. Sewing-machine trimmer.							
Knitting-machine trimmer. Sole-trimmer.							
trimmer. Sole-edge trimmer							
Rand-trimmer. Wick-trimmer.							
Trimming-machine	W. B. Boaz	456,879	July 28	2546	668	56	508
Tripod	J. L. Brown	464,471	Dec. 1	711	173	57	1270
Tripod	S. J. Osborne	464,384	Dec. 1	586	{ 144 145 }	57	1245
Tripod	W. E. Schneider	464,999	Dec. 15	1561	337	57	1453
Triturating straw, &c., for cattle. Apparatus for	L. Vigreux	454,094	June 16	1375	{ 358 359 }	55	1425
Trolley	J. E. Kinney, J. H. Brown, and C. G. Wade	456,148	July 21	1335	354	56	272
Trolley	R. Macrae	451,211	Apr. 28	2446	604	55	498
Trolley	S. H. Short	457,378	Aug. 11	766	197	56	682
Trolley and feed wires. Means for connecting	J. R. Fletcher	454,903	June 30	2656	680	55	1681
Trolley and support. Electric-railway	W. A. Stevens	466,196	Dec. 29	3514	899	57	1444
Trolley-carriage and conductor	C. J. Luce	447,885	Mar. 10	1005	253	54	1315
Trolley device	A. Palmros	450,184	Apr. 14	787	199	55	160
Trolley. Elastic	C. A. Lieb	444,447	Jan. 13	725	190	54	152
Trolley. Electric-railway	C. S. Foster	465,469	Dec. 22	2330	508	57	1607
Trolley. Electric-railway	J. W. Schlosser	464,780	Dec. 8	1199	297	57	1372
Trolley. Electric-railway	F. J. Sprague and P. F. O'Shaughnessy	465,806	Dec. 22	2862	{ 732 733 }	57	1710
Trolley-guide	W. E. Jackson, Jr.	450,489	Apr. 14	1282	314	55	251
Trolley-hook	S. S. Lagerstedt	463,519	Nov. 17	2049	337	57	965
Trolley-line circuit-breaker	R. M. Jones	459,753	Sept. 22	1921	484	56	1459
Trolley-line cross-over	S. H. Short	447,208	Feb. 24	2810	693	54	1083
Trolley or contact wheel. Electric	F. E. Degenhardt	458,640	Sept. 1	114	25	56	1088
Trolley-pole mechanism	G. H. Larkin and J. Tomkins	454,522	June 23	2018	523	55	1357
Trolley-pole stand	J. R. Griffiths	455,322	July 7	35	10	56	9
Trolley. Reversible electric	J. W. Bates and C. E. Blake	463,024	Nov. 10	1271	330	57	807
Trolley. Self-lubricating	W. Hoen	460,232	Sept. 29	2652	661	56	1606
Trolley. Self-lubricating electric	T. Driscoll	458,785	Sept. 1	357	86	56	1133
Trolley. Slide-shoe	S. H. Short	459,689	Sept. 15	1816	456	56	1432
Trolley-stand	R. M. Jones	452,186	May 12	1204	305	55	809
Trolley-switch	C. E. Hindson	461,611	Oct. 20	1734	425	57	348
Trolley-switch	H. L. Pierce	460,488	Sept. 29	3041	762	56	1680
Trolley-wheel	G. E. Lewis	459,588	Sept. 15	1654	414	56	1401
Trolley-wheel. Self-lubricating	J. Sullivan	453,093	May 26	2676	674	55	1109
Trolley-wheels underground. Mechanism for carrying	W. Duncan	463,733	Nov. 24	2424	635	57	1044
Trolley-wheels underground. Mechanism for carrying	J. Holland	451,691	May 5	380	93	55	651
Trolley-wire clamp	C. A. Lieb	462,359	Nov. 3	229	56	57	594
Trolley-wire clamp or support	W. Vogler	445,103	Jan. 20	1809	467	54	369

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Trolley-wire connection	R. L. Caldwell	459,485	Sept. 15	1484	372	56	1370
Trolley-wire crossing. Overhead.	J. Kuehnle	452,576	May 19	1834	460	55	935
Trolley-wire hanger	T. E. Adams	464,411	Dec. 1	627	154	57	1253
Trolley-wire hanger	E. T. Birdsall and L. W. Serroll	463,824	Nov. 24	2547	664	57	1068
Trolley-wire hanger	S. W. Kimble	464,371	Dec. 1	571	139 140	57	1242
Trolley-wire hanger	C. H. Macloskie and W. E. Baker	446,985	Feb. 24	2415	601	54	1009
Trolley-wire hanger	N. Newman	457,660	Aug. 11	1193	305	56	764
Trolley-wire holder	E. P. Sharp	445,908	Feb. 3	641	157 158	54	638
Trolley-wire support.	T. Fricker	460,634	Oct. 6	163	41	57	34
Trolley-wire support.	C. A. Lieb	450,242	Apr. 14	902	234	55	179
Trolley-wire support.	J. H. Palmer	458,427	Aug. 25	2455	597	56	1019
Trolley-wire support.	L. S. Plouts	461,785	Oct. 20	2023	499	57	401
Trolley-wire support.	N. Weeks, Jr.	460,735	Oct. 6	324	79	57	64
Trolley-wire support.	G. K. Wheeler	453,070	May 26	2632	064	55	1099
Trolley-wires. Connector and support for	S. H. Short	456,252	July 21	1504	400	56	304
Trolley-wires. Crossing for	R. M. Jones	464,129	Dec. 1	179	44	57	1171
Trolley-wires. Non-sparking clamp for	C. A. Lieb	450,163	Apr. 14	760	193	55	154
Trolley-wires. Turn-out or switch for	D. W. Edwards	460,571	Oct. 6	46	11	57	11
Trolley-hook	H. Zuckweiler	463,240	Nov. 17	1622	423	57	883
Trough:							
<i>See</i> Eaves-trough.	Water-trough.						
Feed-trough.	Watering-trough.						
Hog-trough.							
Trough-supporter and flock-separator. Combined	J. J. Longabaugh	465,483	Dec. 22	2357	604	57	1613
Trousers, &c.	E. Clark	465,319	Dec. 15	2088	533	57	1551
Trousers.	J. J. Devine	455,920	July 14	1002	260	56	201
Trousers.	M. Falk	451,208	June 16	1542	406	55	1458
Trousers.	I. L. Morris	456,424	July 21	1794	475	56	358
Trousers.	J. M. Taylor	464,916	Dec. 8	1387	350	57	1409
Trousers-flap supporter	C. S. Terpening	457,682	Aug. 11	1227	315	56	771
Trousers-pattern	S. Bisceglia	455,503	July 7	318	82	56	64
Trousers-protector	T. B. Ashford	448,599	Mar. 17	2171	542	54	1549
Trousers-protector	O. Jonach	465,765	Dec. 22	2805	718	57	1699
Trousers-stretcher	A. B. Cogswell	447,868	Mar. 10	980	245	54	1311
Trousers-stretcher	J. C. Covert	454,855	June 30	2563	059	55	1664
Trousers-stretcher	J. B. Granjon	451,617	May 5	264	63	55	629
Trousers-stretcher	C. N. Rand	454,666	June 23	2263	581	55	1600
Trousers-stretcher and hanger	J. A. Traut	445,099	Jan. 20	1803	465	54	367
Trousers-support	G. A. Hicks	450,809	Apr. 21	1803	437	55	366
Trowel-handle	R. J. Cooper	458,944	Sept. 1	615	151	56	1185
Truck	C. Butcher	455,653	July 7	574	149	56	111
Truck	G. L. Chadborn	460,741	Oct. 6	337	82	57	67
Truck	A. A. Coup	462,112	Oct. 27	2541	631	57	509
Truck	W. H. Dye	454,460	June 23	1923	502	55	1539
Truck	W. H. Gohring	460,470	Sept. 29	3015	755	56	1675
Truck	J. W. Hobson	462,829	Nov. 10	971	252	57	748
Truck	C. R. Hunt and T. D. Ball	466,073	Dec. 29	3325	849	57	1808
Truck	E. G. Nutting	465,489	Dec. 22	2366	606	57	1614
Truck	W. D. Sherman	461,689	Oct. 20	1864	462	57	371
Truck	J. M. Sill	451,760	May 5	516	127	55	676
Truck and brake. Car	C. E. Healy	459,748	Sept. 22	1915	483	56	1458
Truck. Barrel.	W. M. Cook	457,811	Aug. 18	1444	376	56	822
Truck. Barrel.	F. H. Zahm	459,430	Sept. 15	1402	350	56	1254
Truck. Bicycle car.	J. Fish	459,888	Sept. 22	2138	537	56	1502
Truck. Brick.	C. W. Seymour	465,785	Dec. 22	2832	726	57	1704
Truck. Cable-grip-car	E. R. Esmond	465,659	Dec. 22	2652	676	57	1668
Truck. Car.	W. S. G. Baker	460,348	Sept. 29	2840	707	56	1643
Truck. Car.	J. H. Bickford	450,608	Apr. 21	1455	358	55	294
Truck. Car.	C. F. Buschner	458,707	Sept. 1	247	58	56	1112
Truck. Car.	F. E. Canda	461,318	Oct. 13	1196	304	57	239
Truck. Car.	E. R. Esmond	465,658	Dec. 22	2651	675 676 677	57	1667
Truck. Car.	E. R. Esmond	465,660	Dec. 22	2654	676 677	57	1668
Truck. Car.	R. Gidley	455,460	July 7	255	64	56	51
Truck. Car.	M. G. Hubbard	450,156	Apr. 14	751	190 191	55	152
Truck. Car.	M. G. Hubbard	450,157	Apr. 14	754	191	55	153
Truck. Car.	M. G. Hubbard	457,740	Aug. 11	1330	345	56	793
Truck. Car.	C. W. Hunt	450,386	Apr. 14	1128	276	55	222
Truck. Car.	C. W. Hunt	452,134	May 12	1118	284	55	792
Truck. Car.	C. W. Hunt	452,135	May 12	1119	284	55	793
Truck. Car.	C. W. Hunt	452,136	May 12	1120	284	55	793
Truck. Car.	C. W. Hunt	452,919	May 26	2378	602	55	1040
Truck. Car.	C. W. Hunt	454,273	June 16	1633	429	55	1476
Truck. Car.	C. W. Hunt	461,680	Oct. 20	1850	458	57	368
Truck. Car.	J. B. Johnson	447,430	Mar. 3	258	65	54	1166
Truck. Car.	P. M. Kling	450,941	Apr. 21	1898	492	55	404
Truck. Car.	J. Krehbiel	450,627	Apr. 21	1491	366	55	301
Truck. Car.	G. W. Lamb and B. G. Van Dyke	450,813	Apr. 21	1814	440	55	368
Truck. Car.	E. Peckham	458,749	Sept. 1	302	74	56	1123
Truck. Car.	E. Peckham	464,253	Dec. 1	391	93	57	1208
Truck. Car.	H. F. Probert	446,392	Feb. 10	1456	357	54	802
Truck. Car.	J. T. Robinson	451,952	May 12	785	199	55	735
Truck. Car.	J. T. Robinson	464,041	Dec. 1	50	14	57	1146
Truck. Car.	W. H. Siebecker	458,759	Sept. 1	319	77, 78	56	1196
Truck. Car.	J. Taylor	455,990	July 14	1105	291	56	218
Truck. Car.	L. A. Thompson	458,200	Aug. 25	2065	535	56	947
Truck. Car.	M. Weber	463,738	Nov. 24	2429	636 637	57	1045
Truck. Car.	H. B. Williams	461,658	Oct. 20	1816	449	57	361
Truck. Car-motor.	G. M. Brill	461,662	Oct. 20	1822	451	57	362

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Truck driving mechanism. Car.	C. W. Hunt	447,114	Feb. 24	2630	{ 652 653 }	54	1050
Truck. Electric car.	T. Tripp	457,802	Aug. 18	1431	371	56	819
Truck. Electric-motor.	F. O. Blackwell.	448,199	Mar. 17	1511	{ 385 386 }	54	1425
Truck. Electric-motor.	F. O. Blackwell.	449,197	Mar. 31	3115	786	54	1746
Truck. Electric-motor.	R. P. Faries	445,051	Jan. 20	1729	445	54	354
Truck. Electric-motor.	W. H. Knight	458,584	Sept. 1	55	12, 13	56	1076
Truck. Electric-motor car.	J. F. Seiberling	455,581	July 7	462	{ 120 121 }	56	89
Truck. Electric-railway.	W. H. Knight	451,491	May 5	72	18	55	593
Truck. Extension-ladder	A. Ruthenberg	456,224	July 21	1449	384	56	294
Truck for cars. Motor.	J. A. Brill	445,308	Jan. 27	2123	{ 549 550 }	54	439
Truck for electric motors	G. M. Brill	457,599	Aug. 11	1107	{ 282 283 }	56	748
Truck for elevated railways. Motor.	E. M. Turner, G. L. Van Beek, and L. A. Brown.	456,103	July 14	1260	332	56	249
Truck for railway-cars	L. Pingst and S. A. Bemis	449,382	Mar. 31	3440	866	54	1803
Truck for suspended cars	R. C. Forsyth.	449,318	Mar. 31	3322	{ 837 838 }	54	1782
Truck for vehicles for ropeways	T. Otto	444,109	Jan. 6	208	50	54	43
Truck frame. Car.	D. L. Barnes	461,413	Oct. 20	1369	347	57	279
Truck. Hand.	W. H. Dye	454,461	June 23	1924	502	55	1539
Truck. Hand.	E. D. Eaton	461,820	Oct. 27	2089	515	57	421
Truck. Hand.	B. H. Haskins	461,433	Oct. 20	1401	353	57	285
Truck. Hand.	J. A. Mead	461,522	Oct. 20	1605	{ 392 393 }	57	322
Truck jack. Railway.	J. C. Carbine	446,378	Feb. 10	1434	352	54	797
Truck. Locomotive-tender.	E. W. Mackenzie-Hughes	461,436	Oct. 20	1404	354	57	286
Truck. Logging.	J. M. Frink and J. Readman	453,557	June 2	591	151	55	1259
Truck lubricator. Locomotive.	W. McIntosh	447,081	Feb. 24	2580	640	54	1039
Truck. Motor.	G. M. Brill	458,216	Aug. 25	2092	{ 541 542 }	56	952
Truck. Motor.	F. M. Lechner	451,942	May 12	771	195	55	732
Truck. Motor.	C. J. Van Depoele	461,293	Oct. 13	1158	296	57	232
Truck. Piano.	H. Linden	459,365	Sept. 8	1280	316	56	1322
Truck. Piano.	C. H. Martin	452,714	May 19	2051	515	55	979
Truck. Radial car.	W. Robinson	414,181	Jan. 6	333	80, 81	54	67
Truck. Railway.	J. G. Chandler	456,719	July 28	2270	602	56	459
Truck. Sleigh.	H. F. Dornell	464,818	Dec. 8	1250	313	57	1382
Truck. Stove.	G. H. Rogers and A. J. Barber	444,020	Jan. 6	55	15	54	14
Truck. Street-car.	H. F. Shaw	455,265	June 30	3292	834	55	1804
Trucks. Equalizing-bar for	S. Fox	463,726	Nov. 24	2416	633	57	1042
Trucks. Swing-bolster check for car.	W. Robinson	444,183	Jan. 6	337	82	54	68
Trunk	J. S. Daggett	446,812	Feb. 17	2116	526	54	945
Trunk	J. T. Dwyer	465,266	Dec. 15	2179	558	57	1567
Trunk	F. J. Eggeman	465,693	Dec. 22	2700	688	57	1677
Trunk	G. S. Eggeman	465,694	Dec. 22	2701	688	57	1678
Trunk	T. Farmer, Jr.	455,612	July 7	509	132	56	98
Trunk	W. S. Hackett.	466,065	Dec. 29	3316	847	57	1807
Trunk	C. W. Lewis	464,828	Dec. 8	1266	317	57	1386
Trunk	F. J. Palica	444,941	Jan. 20	1564	401	54	321
Trunk	F. J. Palica	451,513	May 5	103	26	55	599
Trunk	W. G. Russell, Jr.	446,890	Feb. 24	2262	562	54	981
Trunk	J. Schmadel	450,533	Apr. 14	1338	329	57	182
Trunk	H. Zimmer	461,145	Oct. 13	910	236	54	1534
Trunk and bed. Combined	G. W. Snaman, Jr.	448,554	Mar. 17	2086	523	54	906
Trunk and folding bed. Combined	A. M. Nelson	446,690	Feb. 17	1928	451	54	1226
Trunk attachment	W. R. Sutley	447,625	Mar. 3	518	143	54	70
Trunk. Convertible.	E. H. Ripple and A. D. Williams	460,759	Oct. 6	358	88	57	1375
Trunk-lids. Fastening and protecting device for.	C. T. Wilt, Jr.	459,505	Sept. 15	1512	378	56	1032
Trunk-lock	J. G. Krieger	447,057	Feb. 24	2541	631	54	467
Trunk or wardrobe. Convertible.	G. L. S. Hayes	445,400	Jan. 27	2261	587	54	241
Trunk-slat	R. Topbam	444,736	Jan. 13	1190	308	54	534
Trunk strap and fastening	J. R. Brown	462,198	Oct. 27	2573	609	57	211
Trunks. Combined caster and spring corner-protect- or for	S. S. Arnold	450,349	Apr. 14	1066	202	55	517
Truss	F. W. Christians	451,266	Apr. 28	2539	626	55	1495
Truss	M. R. Fletcher	454,339	June 16	1731	451	55	1039
Truss	L. T. Flodin	463,717	Nov. 24	2402	630	57	688
Truss	W. M. Greenlee	451,817	May 5	571	140	55	490
Truss	G. V. House, Jr.	456,822	July 28	2444	644	56	1032
Truss	T. J. Loughbridge	458,472	Aug. 25	2526	614	56	918
Truss	J. A. Marvin	458,127	Aug. 18	1951	507	56	797
Truss	J. McCutcheon	457,747	Aug. 11	1344	318	56	379
Truss	A. Milliard	456,495	July 21	1898	502	56	480
Truss	R. Nagler	462,015	Oct. 27	2388	592	57	155
Truss	A. Naidl	461,038	Oct. 13	766	197	57	155
Truss	A. Naidl	461,039	Oct. 13	768	197	57	156
Truss	A. Naidl	461,040	Oct. 13	769	197	55	160
Truss	S. R. Nye	450,183	Apr. 14	786	198	55	1628
Truss	T. R. Park and R. A. Pickens	454,761	June 23	2400	616	55	50
Truss	J. A. Rector	449,806	Apr. 7	251	63	55	157
Truss	L. A. and C. Smith	455,771	July 14	770	202	56	1149
Truss	H. C. Stickney	447,378	Mar. 3	166	45	54	305
Truss	T. E. Wheeler	444,899	Jan. 20	1479	382	54	559
Truss	P. Yost	445,666	Feb. 3	240	65	54	1256
Truss. Electro-therapeutic	H. W. Matthews	459,143	Sept. 8	939	226	56	248
Truss for elevated structures	E. M. Turner, G. L. Van Beek, and L. A. Brown.	456,101	July 14	1257	331	56	248
Truss for elevated structures	E. M. Turner, G. L. Van Beek, and L. A. Brown.	456,102	July 14	1259	331	56	248
Truss-joint	C. Steiner	458,199	Aug. 25	2064	534	56	946

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Truss-pad.....	C. Cluthe.....	460,950	Oct. 13	640	165	57	132
Truss-pad.....	G. R. Fuller.....	453,298	June 2	179	50	55	1181
Truss-pad.....	J. Garcia.....	449,473	Mar. 31	3599	906	54	1834
Truss-pad.....	G. V. House, Jr.....	456,823	July 28	2446	644	56	491
Trussed structure.....	H. V. Hardwick, Sr.....	463,275	Nov. 17	1679	439	57	894
Trusses. Electric appliance for.....	A. Owen.....	444,599	Jan. 13	971	251	54	201
Trusses or girders. Plant for elevating.....	G. Anderson.....	454,444	June 23	1901	495 496	55	1535
Tub:							
See Bath-tub. Rinsing-tub.							
Butter-tub. Wash-tub.							
Laundry-tub.							
Tub lining. Bath.....	G. N. McDonald.....	455,429	July 7	213	54	56	44
Tubs. Cradle for bath.....	O. F. Grant.....	455,615	July 7	514	133	56	99
Tubs. Mold for cement wash.....	J. Moore.....	449,884	Apr. 7	357	91	55	71
Tubs. Waste and overflow connection for stationary wash.....	A. Thourot.....	455,072	June 30	2988	760	55	1746
Tube:							
See Boiler water-tube. Pneumatic tube.							
Egg-carrying tube. Pneumatic dispatch-tube.							
Glass-blowing tube. Speaking-tube.							
Metallic tube. Wick-tube.							
Tube.....	H. Denney.....	444,233	Jan. 6	412	102	54	81
Tube-blanks. Apparatus for making.....	J. Robertson.....	447,583	Mar. 3	511	125 126	54	1213
Tube-cutting machine.....	H. O. Whitney.....	460,317	Sept. 29	2789	695	56	1632
Tube-drawing apparatus.....	J. P. Serve.....	457,222	Aug. 4	456	120	56	618
Tube-expander.....	R. H. Dudgeon and J. Weeks.....	459,176	Sept. 8	997	244	56	1266
Tube-forming machine. Seamless.....	E. W. Clark.....	454,030	June 16	1283	335	55	1409
Tube-machine.....	G. W. Clark.....	456,615	July 28	2104	556	56	426
Tube-making machine.....	T. C. Belding.....	445,517	Jan. 27	2427	633 634	54	498
Tube-making machine.....	F. H. J. Wüstenhöfer.....	452,909	May 26	2362	597 598	55	1047
Tube-scraper.....	H. Gillmore.....	452,938	May 26	2423	612	55	1059
Tube-scraper.....	E. H. Jeeves.....	464,756	Dec. 8	1163	289 290	57	1365
Tubes from mandrels. Apparatus for loosening.....	A. S. Elmore.....	455,186	June 30	3180	805 806	55	1782
Tubes from pulp. Machine for forming seamless.....	H. J. Medbery. (Reissne).....	11,176	July 7	709	186 187	56	137
Tubes. Machine for cutting paper.....	G. P. Salisbury.....	447,740	Mar. 3	740	186 187	54	1258
Tubes. Machine for cutting screw-threads on.....	O. Bryant.....	459,389	Sept. 15	1333	334 335	56	1341
Tubes. Machine for swaging the ends of.....	J. P. Kennedy.....	457,954	Aug. 18	1690	444	56	868
Tubes. Machine for swaging the ends of.....	J. P. Kennedy.....	457,955	Aug. 18	1694	444	56	869
Tubes. Machine for swaging the ends of.....	J. P. Kennedy.....	457,956	Aug. 18	1697	444	56	869
Tubes. Making.....	J. H. Bevington.....	463,617	Nov. 24	2237	590	57	1009
Tubes. Making.....	A. Lawrence.....	445,854	Feb. 3	566	138	54	622
Tubes. Process of and apparatus for manufacturing copper.....	A. S. Elmore.....	464,351	Dec. 1	545	133	57	1237
Tubes. Tool or apparatus for ornamenting metallic.....	C. Willmott.....	465,957	Dec. 29	3116	798 799	57	1767
Tubing. Apparatus for making.....	P. Patterson.....	444,568	Jan. 13	932	242	54	193
Tubing. Machine for impressing ornamental designs upon metallic.....	J. Burkhardt.....	461,812	Oct. 27	2073	511	57	418
Tubing. Machine for making.....	J. Robertson.....	447,582	Mar. 3	508	125	54	1213
Tubing. Method of and apparatus for making.....	J. R. Jackson and C. Carlson.....	459,752	Sept. 22	1919	483 484	56	1459
Tubing. Multiple-braided.....	H. W. Struss.....	450,685	Apr. 21	1616	388	55	332
Tubing. Sheet-metal.....	W. H. Noble.....	460,651	Oct. 6	188	48	57	39
Tubing. Socket-tip for flexible.....	A. Caldwell.....	450,139	Apr. 14	727	183	56	148
Tubular articles. Mold for.....	S. J. Adams.....	465,771	Dec. 22	2811	721	57	1700
Tubular body and constructing the same.....	R. Mannesmann.....	464,978	Dec. 15	1502	377	57	1442
Tubular boiler.....	H. Skinner.....	448,890	Mar. 24	2640	663	54	1645
Tubular boiler. Downdraft.....	D. V. O'Brien.....	449,381	Mar. 31	3439	865	54	1803
Tubular boiler. Horizontal.....	L. White, Jr., W. Y. Baker, and C. J. Watts.....	458,277	Aug. 25	2217	543	56	975
Tubular receptacles. Machine for ornamenting.....	L. T. Sheffield and T. M. Sinclair.....	448,678	Mar. 24	2304	578	54	1582
Tug.....	O. A. Crabbs and S. Emens.....	447,050	Feb. 24	2532	629	54	1030
Tug.....	J. Grierson.....	459,076	Sept. 8	829	201	56	1233
Tug.....	E. A. Hall and A. H. Hamilton.....	446,677	Feb. 17	1909	474	54	902
Tug clip. Hame.....	G. D. Studken.....	449,714	Apr. 7	107	28	55	23
Tug-fastener.....	H. B. Davis.....	463,775	Nov. 24	2478	647	57	1054
Tug. Hame.....	S. E. Bricknell.....	454,515	June 23	2010	521	55	1555
Tug. Hame.....	S. E. Bricknell.....	460,229	Sept. 29	2647	660	56	1605
Tug. Hame.....	W. A. Burns.....	463,938	Nov. 24	2745	712	57	1104
Tug. Hame.....	T. Caulfield.....	465,040	Dec. 15	1629	414	57	1465
Tug. Hame.....	H. J. Demers.....	446,733	Feb. 17	1998	498	54	920
Tug. Hame.....	A. H. Dredge.....	451,891	May 5	674	170	55	707
Tug. Hame.....	C. W. Hudgens.....	458,848	Sept. 1	468	112	56	1155
Tug. Hame.....	R. Meister and M. Remmel.....	462,498	Nov. 3	434	106	57	633
Tug. Hame.....	M. J. Young and C. Robinson.....	447,995	Mar. 10	1196	303	54	1352
Tug. Harness.....	J. W. Gano.....	458,570	Sept. 1	36	7	56	1072
Tug. Harness.....	G. F. Grout.....	448,026	Mar. 10	1245	317	54	1361
Tug-holder.....	A. D. Kimball.....	463,516	Nov. 17	2046	536	57	965
Tug-hook.....	J. H. Boethe.....	458,761	Sept. 1	321	78	56	1127
Tug. Shaft.....	T. W. Davies and G. M. Downey.....	445,929	Feb. 3	674	165	54	643
Tug. Shaft.....	G. C. Paine.....	446,390	Feb. 10	1454	357	54	801
Tug. Shaft.....	J. Payne.....	450,711	Apr. 21	1653	398	55	338
Tug. Thill.....	J. S. Hurley.....	449,906	Apr. 7	395	99	55	77
Tug. Thill.....	D. M. Schell.....	446,694	Feb. 17	1933	482	54	906
Tumblers, &c. Device for cleansing.....	H. H. Suow.....	461,223	Oct. 13	1059	268	57	211

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Tuning-hammer.....	B. F. Fuchs.....	458,568	Sept. 1	34	7	56	1072
Tuning-pegs. Retaining device for.....	R. C. Bookser.....	448,872	Mar. 24	2616	657	54	1641
Tunnel.....	H. Moeser.....	447,735	Mar. 3	733	{ 183 184 }	54	1256
Tunnels. Means for ventilating.....	J. A. Young.....	462,025	Oct. 27	2407	597	57	484
Tunnels. Method of and apparatus for constructing.....	J. W. Rene.....	466,046	Dec. 29	3290	{ 839 840 }	57	1801
Tunnels or sinking shafts. Driving.....	M. Wolff.....	460,545	Sept. 29	3151	787	56	1703
Tunneling apparatus.....	J. H. Greathead.....	458,048	Aug. 18	1837	479	56	896
Tunneling apparatus. Pneumatic.....	W. H. Patue.....	445,194	Jan. 27	1962	507	54	407
Tunneling-machine. Subaqueous.....	L. Grover.....	444,244	Jan. 6	426	107	54	84
Turbine.....	T. J. Tolman.....	465,503	Dec. 22	2304	612	57	1619
Turbines. Water-conductor for.....	J. Graham.....	446,287	Feb. 10	1297	317	54	769
Turf-cutter.....	W. J. Adams.....	461,972	Oct. 27	2329	577	57	469
Turfing implement.....	C. E. Coe.....	448,845	Mar. 24	2572	646	54	1633
Turfing implement.....	E. Ross.....	463,548	Nov. 17	2113	556	57	976
Turn-buckle.....	W. B. Middleton.....	447,077	Feb. 24	2575	639	54	1038
Turn-buckle.....	C. H. Williams.....	445,625	Feb. 3	168	44	54	545
Turn-buckle blanks. Roll for rolling.....	W. B. Middleton.....	447,237	Feb. 24	2868	712	54	1094
Turn-buckles. Making.....	E. W. Merrill and J. Bass.....	462,499	Nov. 3	436	106	57	633
Turn-table.....	L. C. Moise.....	455,346	July 7	70	19	56	18
Turn-table for elevated carriers.....	D. O. Paige.....	457,822	Aug. 18	1462	381	56	825
Turn-table. Locomotive.....	C. Weatherston and P. K. Richter.....	465,009	Dec. 15	1577	402	57	1456
Turning and boring mill. Automatic.....	J. B. Allfree.....	462,757	Nov. 10	843	{ 221 222 223 }	57	723
Turning-machine.....	A. G. Baumeister and N. Heinz.....	445,032	Jan. 20	1692	435	54	346
Turret. Armored.....	J. B. G. A. Canet.....	453,545	June 2	573	{ 146 147 }	55	1256
Turret. Gunboat.....	W. H. Avey.....	461,517	Oct. 20	1597	{ 389 390 }	57	320
Tuyere.....	G. H. Burrows.....	463,379	Nov. 17	1850	484	57	926
Tuyere.....	J. M. Hartman.....	460,131	Sept. 29	2511	625	56	1573
Tuyere.....	N. M. Langdon.....	459,470	Sept. 15	1458	367	56	1365
Tuyere.....	C. H. Norris.....	460,060	Sept. 22	2389	596	56	1548
Twine.....	F. R. Williams and G. H. Cram.....	448,174	Mar. 10	1460	372	54	1405
Twine-balling machine.....	A. C. Miller.....	462,984	Nov. 10	1216	317	57	795
Twine-bobbins. Tension-regulator for.....	E. E. Biederman.....	453,073	May 26	2639	{ 665 666 }	55	1100
Twine-cutter.....	W. L. Gibson.....	456,812	July 28	2429	641	56	487
Twine-cutter.....	F. Grigsby.....	459,2-3	Sept. 8	1156	282	56	1298
Twine-cutter.....	G. A. Kerr.....	453,009	May 26	2530	640	55	1080
Twine-cutter.....	D. C. Maulden.....	461,245	Oct. 13	1091	277	57	218
Twine for grain-binding harvesters.....	F. R. Williams.....	451,791	May 5	531	130	55	679
Twine for use upon grain-binding machinery. Paper.....	G. L. Rice.....	451,773	May 5	507	125	55	674
Twine from straw, grass, &c. Machine for making.....	G. H. Ellis.....	459,237	Sept. 8	1082	{ 264 265 }	56	1282
Twine-holder.....	H. A. Keyes.....	455,439	July 7	224	58	56	46
Twine-holder.....	R. O. Nottingham.....	446,691	Feb. 17	1929	481	54	906
Twine holder and cutter.....	J. J. Quinn and F. C. Snebold.....	451,771	May 5	505	124	55	674
Twine-holder attachment.....	C. F. Walters.....	454,784	June 23	2435	625	55	1635
Twine. Machine for making compound paper and jute.....	J. W. Perkins.....	446,926	Feb. 24	2327	578	54	992
Twine-machines. Automatic feeder for.....	G. A. Lowry.....	451,497	May 5	79	20	55	594
Twine-making machine.....	W. H. Avery.....	451,424	Apr. 28	2774	686	55	561
Twine-making machines. Automatic feeder for.....	G. A. Lowry.....	451,496	May 5	77	20	55	594
Twine-reel.....	J. H. Holbrook.....	457,082	Aug. 4	239	61	56	579
Twine-reel.....	J. B. Holmes.....	447,153	Feb. 24	2724	675	54	1065
Twine-reel.....	F. C. Werner.....	444,866	Jan. 20	1430	372	54	295
Twines, &c. Machine for the manufacture of.....	W. H. Avis.....	449,991	Apr. 7	514	{ 128 129 }	55	100
Twist-drill.....	J. E. Merritt.....	451,896	May 5	678	172	55	707
Twist-drill.....	A. B. Shippee.....	465,392	Dec. 15	2217	568	57	1575
Twist-drills. Marking.....	G. L. Holt.....	460,639	Oct. 6	171	43	57	36
Twist-drills. Process of and dies for making.....	T. Hooker.....	447,450	Mar. 3	296	75	54	1173
Twisting-machine.....	A. B. Bullock.....	450,137	Apr. 14	725	182	55	147
Twisting-machine.....	J. Chadderton and A. Hitchins.....	457,181	Aug. 4	382	98	56	606
Type and holder for the same.....	J. M. Williamson.....	456,873	July 28	2534	666	56	506
Type and type therefor. Detachable holder for rubber-faced.....	J. J. Finke.....	450,665	Apr. 21	1589	381	55	326
Type-bar and manufacturing the same.....	W. Baker.....	446,414	Feb. 17	1508	371	54	819
Type-bar bearing.....	J. D. Mason.....	452,847	May 26	2262	567	55	1028
Type-bar hanger.....	G. F. Stillman.....	448,690	Mar. 24	2326	583	54	1587
Type-basket brush.....	C. H. Platt.....	464,626	Dec. 8	947	234	57	1326
Type-belt.....	S. H. Hogson.....	453,699	June 9	826	209	55	1312
Type-case. Printer's.....	W. H. Ayers and B. W. Demarest.....	457,919	Aug. 18	1635	428	56	857
Type-composing mechanism.....	P. T. Dodge.....	444,294	Jan. 6	494	129	54	98
Type-containing channel.....	A. A. Low.....	445,702	Feb. 3	309	82	54	573
Type-distributer.....	H. C. Leland.....	465,482	Dec. 22	2354	{ 603 604 }	57	1612
Type-distributer.....	J. L. McMillan.....	464,163	Dec. 1	233	57, 58	57	1180
Type-distributer. Portable.....	R. Clarke.....	457,182	Aug. 4	384	99	56	606
Type-distributing apparatus.....	L. K. Johnson and A. A. Low.....	453,584	June 2	636	162	55	1268
Type-distributing apparatus.....	J. B. Odell.....	457,481	Aug. 11	929	246	56	712
Type-distributing holder.....	A. B. Adams.....	447,124	Feb. 24	2642	{ 655 656 }	54	1052
Type-distributing machine.....	C. H. Joslyn.....	464,477	Dec. 1	719	{ 175 176 293 294 }	57	1271
Type-distributing machine.....	J. Patten.....	446,235	Feb. 10	1195	{ 295 296 297 298 }	54	748
Type-distributing machine.....	O. F. Teed.....	457,829	Aug. 18	1470	383	56	826

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Type-founder's matrix	A. F. Allen	449,062	Mar. 24	2896	735	54	1696
Type-frame for chases	N. E. Smith	451,625	May 5	280	67	55	632
Type-holder	T. S. Buck	456,014	July 14	1148	300	56	226
Type in galleys or chases. Device for locking up	L. Benson	465,316	Dec. 15	2084	532	57	1550
Type-justifying machine	J. L. McMillan	465,877	Dec. 29	2988	763 764	57	1743
Type-mold	T. Mitchell and J. Milne	450,083	Apr. 7	641	162	55	126
Type. Printers'	B. Godwin	454,862	June 30	2573	661	55	1666
Type-rubbing machinery	J. C. Birch and C. Dancel	457,575	Aug. 11	1069	273	56	741
Type-setting machine	J. Gustafson	453,257	June 2	120	32, 33	55	1171
Type-setting machine	J. L. McMillan	465,876	Dec. 29	2978	761 762 763	57	1741
Type setting or composing machine	E. C. Standiford and S. A. Hyers	448,735	Mar. 24	2404	601 602	54	1601
Type to type-bars. Tool for clamping	H. Abbott	449,190	Mar. 31	3104	782	54	1743
Type-writer cabinet	M. Bancroft	465,912	Dec. 29	3048	781	57	1755
Type-writer cabinet	V. Lapham	459,406	Sept. 15	1365	342	56	1348
Type-writer cabinet	F. Sanderson	458,959	Sept. 1	638	156	56	1190
Type-writer carriages. Release-key for	T. C. Josselyn	463,992	Nov. 24	2827	733	57	1120
Type-writer copy-holder	J. Chase	460,847	Oct. 6	478	122	57	95
Type-writer drop-cabinet	W. C. Behrens	446,943	Feb. 24	2349	584	54	996
Type-writer type-bars. Die for making	C. D. Wallace	461,100	Oct. 13	852	220	57	171
Type-writers and printers' cases. Copy-holding attachment for	D. M. Kirkpatrick	462,820	Nov. 10	953	248	57	745
Type-writers. Blank book for	J. H. Fitzgerald	446,095	Feb. 10	954	234	54	704
Type-writers, &c. Cabinet for	W. J. Elsom	458,446	Aug. 25	2485	604	56	1024
Type-writers. Counter-operating mechanism for	E. C. de Segundo	455,123	June 30	3069	781	55	1761
Type-writers. Ink-pad for	A. S. Osborn	454,660	June 23	2255	579	55	1598
Type-writers. Word-counter for	J. Butcher	451,167	Apr. 28	2360	586	55	484
Type-writing machine	L. E. Baker	445,152	Jan. 27	1897	489	54	395
Type-writing machine	L. A. Barber	455,679	July 7	611	160	56	118
Type-writing machine	W. J. Barron	444,873	Jan. 20	1441	375	54	298
Type-writing machine	W. J. Barron	450,880	Apr. 21	1921	471	55	388
Type-writing machine	W. J. Barron	452,825	May 26	2228	559	55	1022
Type-writing machine	W. J. Barron	461,863	Oct. 27	2148	530	57	434
Type-writing machine	W. J. Barron	463,614	Nov. 24	2230	589	57	1008
Type-writing machine	W. J. Barron	463,934	Nov. 24	2738	710	57	1103
Type-writing machine	G. Becker	454,837	June 30	2537	653	55	1659
Type-writing machine	G. Becker	455,299	July 7	6	2	56	4
Type-writing machine	J. Becker	453,166	May 26	2800	702	55	1129
Type-writing machine	J. and G. Becker	457,336	Aug. 11	694	177	56	667
Type-writing machine	E. J. Blacio	465,589	Dec. 22	2513	648 649	57	1647
Type-writing machine	G. C. Blickensderfer	457,298	Aug. 4	589	155 156	56	642
Type-writing machine	G. C. Blickensderfer	457,333	Aug. 4	658	172 173 174	56	655
Type-writing machine	G. C. Blickensderfer	459,093	Sept. 8	853	206 207 208	56	1237
Type-writing machine	G. C. Blickensderfer	459,094	Sept. 8	865	208 209	56	1240
Type-writing machine	F. H. Bolte	452,335	May 12	1445	357 358	55	855
Type-writing machine	C. S. Booth	457,757	Aug. 11	1359	351	56	799
Type-writing machine	D. C. Boruff	444,119	Jan. 6	222	54	54	46
Type-writing machine	T. F. Bourne	416,850	Feb. 24	2180	543 544	54	967
Type-writing machine	B. A. Brooks	454,845	June 30	2548	656	55	1661
Type-writing machine	B. A. Brooks	461,865	Oct. 27	2151	530 531	57	434
Type-writing machine	B. A. Brooks	463,723	Nov. 24	2410	632	57	1041
Type-writing machine	B. A. Brooks	463,724	Nov. 24	2413	632 633	57	1041
Type-writing machine	A. T. Brown	445,350	Jan. 27	2189	567	54	453
Type-writing machine	A. T. Brown	465,451	Dec. 22	2302	591 592	57	1602
Type-writing machine	C. M. Clinton and J. McNamara	448,934	Mar. 24	2700	681 682	54	1658
Type-writing machine	C. M. Clinton and J. McNamara	449,616	Mar. 31	3826	959 960	54	1876
Type-writing machine	H. E. Curtis	446,432	Feb. 17	1536	378	54	829
Type-writing machine	J. D. Daugherty	457,258	Aug. 4	522	136 137	56	630
Type-writing machine	A. Davis	465,591	Dec. 22	2546	649	57	1648
Type-writing machine	J. T. Davis	458,522	Aug. 25	2611	635 636	56	1049
Type-writing machine	S. A. Dean	463,968	Nov. 24	2785	723	57	1112
Type-writing machine	A. Densmore	464,752	Dec. 8	1156	287	57	1363
Type-writing machine	W. S. Dodge	446,381	Feb. 10	1437	353	54	798
Type-writing machine	F. A. Dolph	457,308	Aug. 4	609	159 160 161	56	646
Type-writing machine	J. L. Edland	456,025	July 14	1164	305	53	229
Type-writing machine	A. P. Eggis	455,561	July 7	423	112 113 114	56	82
Type-writing machine	W. W. Evans	445,398	Jan. 27	2254	585 586	54	466
Type-writing machine	J. M. Fairfield	456,234	July 21	1476	393	56	209
Type-writing machine	J. M. Fairfield	458,675	Sept. 1	201	47	56	1104
Type-writing machine	J. M. Fairfield and G. I. Francis	465,042	Dec. 15	1630	415	57	1468

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Type-writing machine	D. W. Filstead	462,038	Oct. 27	2425	601	57	487
Type-writing machine	M. Fisher	448,760	Mar. 24	2442	611	54	1608
Type-writing machine	E. A. Ford	456,808	July 28	2421	638	56	486
Type-writing machine	G. I. Francis	448,646	Mar. 24	2257	566	54	1573
Type-writing machine	S. Fujiki	464,355	Dec. 1	551	135	57	1239
Type-writing machine	J. Gardner	463,859	Nov. 24	2611	679	57	1080
Type-writing machine	J. Gardner	463,860	Nov. 24	2617	681	57	1080
Type-writing machine	J. B. Gathright	452,268	May 12	1329	682	55	833
Type-writing machine	B. Granville	446,676	Feb. 17	1904	473	54	902
Type-writing machine	J. J. Green	444,750	Jan. 13	1207	474	54	244
Type-writing machine	T. Hall	453,593	June 2	647	313	55	1270
Type-writing machine	E. M. Hamilton	444,490	Jan. 13	806	166	54	168
Type-writing machine	E. M. Hamilton	444,491	Jan. 13	808	167	54	169
Type-writing machine	J. B. Hammond	458,260	Aug. 25	2170	209	56	966
Type-writing machine	W. C. Hardie	450,701	Apr. 21	1641	531	55	336
Type-writing machine	A. E. Harnsberger	447,773	Mar. 10	808	394	54	1278
Type-writing machine	M. Hearn	453,240	June 2	95	200	55	1166
Type-writing machine	M. Hearn	453,241	June 2	98	201	55	1166
Type-writing machine	M. Hearn and M. Donne	464,868	Dec. 8	1321	202	57	1397
Type-writing machine	E. S. Higgins and H. C. Jenkins	448,037	Mar. 10	1257	331	54	1364
Type-writing machine	G. A. and C. M. Hill	465,021	Dec. 15	1597	322	57	1460
Type-writing machine	A. Hitt	455,748	July 14	741	407	56	151
Type-writing machine	W. B. Hohenshell and E. H. Overholt	444,636	Jan. 13	1017	195	54	210
Type-writing machine	F. W. Howe	455,944	July 14	1034	265	56	206
Type-writing machine	S. C. Hurlbut	455,719	July 7	682	266	56	131
Type-writing machine	W. M. Jenne	462,947	Nov. 10	1165	270	57	764
Type-writing machine	W. M. Jenne	464,436	Dec. 1	658	271	57	1260
Type-writing machine	W. P. Kidder	464,504	Dec. 8	763	272	57	1289
Type-writing machine	G. H. Lasar	463,366	Nov. 17	1832	186	57	922
Type-writing machine	A. Lowe	465,823	Dec. 22	2888	187	57	1715
Type-writing machine	A. L. Mariner	457,088	Aug. 4	246	188	56	580
Type-writing machine	J. N. and J. N. Maskelyne, Jr.	457,903	Aug. 18	1601	417	56	850
Type-writing machine	F. M. McGlothen	464,985	Dec. 15	1524	418	57	1445
Type-writing machine	C. E. Merritt	448,248	Mar. 17	1529	324	51	1439
Type-writing machine	C. E. Merritt	465,486	Dec. 22	2361	406	57	1614
Type-writing machine	C. E. Merritt	465,565	Dec. 22	2503	605	57	1640
Type-writing machine	M. G. Merritt	444,889	Jan. 20	1465	639	54	303
Type-writing machine	B. Metz	457,563	Aug. 11	1049	379	56	737
Type-writing machine	B. T. Mulligan	449,560	Mar. 31	3719	269	54	1857
Type-writing machine	F. Myers	463,909	Nov. 24	2691	934	57	1094
Type-writing machine	F. Myers	463,910	Nov. 24	2698	701	57	1095
Type-writing machine	L. J. Odell	457,840	Aug. 18	1491	702	56	831
Type-writing machine	T. Oliver	450,107	Apr. 7	676	388	55	132
Type-writing machine	J. H. Osgood	447,789	Mar. 10	839	171	54	1284
Type-writing machine	H. E. Payne	456,337	July 21	1637	172	56	330
Type-writing machine	H. E. Payne	456,338	July 21	1639	210	56	330
Type-writing machine	C. A. Pennington	448,255	Mar. 17	1609	433	54	1442
Type-writing machine	J. W. Pierce	446,638	Feb. 17	1243	411	54	890
Type-writing machine	G. G. Prentice	456,339	July 21	1641	457	56	331
Type-writing machine	J. M. Prentice	464,892	Dec. 8	1357	458	57	1403
Type-writing machine	W. M. Reason	453,941	June 9	1157	341	55	1377
Type-writing machine	C. H. Redman, Jr.	466,300	Dec. 29	3695	302	57	1878
Type-writing machine	A. B. Reid	449,296	Mar. 31	3271	943	54	1774
Type-writing machine	A. B. Reid	452,964	May 26	2494	829	55	1073
Type-writing machine	W. Rennyson	451,573	May 5	191	631	55	616
Type-writing machine	J. Richardson	448,996	Mar. 24	2793	40	54	1670
Type-writing machine	G. F. Robertson	448,079	Mar. 10	1314	337	54	1376
Type-writing machine	J. R. Robinson	447,357	Mar. 3	128	338	54	1142
Type-writing machine	J. W. Schuckers. (Reissue)	11,156	Apr. 14	1446	35	55	284
Type-writing machine	J. H. Schulte	450,592	Apr. 14	1422	355	55	280
Type-writing machine	W. S. Scudder	457,673	Ang. 11	1214	350	56	768
Type-writing machine	T. W. Scaring	452,290	May 12	1359	312	55	839
Type-writing machine	J. B. Secor	450,775	Apr. 21	1744	338	55	356
Type-writing machine	J. B. Secor	464,944	Dec. 8	1433	422	57	1419

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Type-writing machine	S. J. Seifried	446,394	Feb. 10	1459	{ 358 359	54	802
Type-writing machine	E. S. Shimer	461,988	Oct. 27	2351	583	57	473
Type-writing machine	E. S. Shimer	462,019	Oct. 27	2393	{ 593 594	57	481
Type-writing machine	C. L. Sholes	464,902	Dec. 8	1370	344	57	1406
Type-writing machine	C. L. Sholes	464,903	Dec. 8	1372	345	57	1406
Type-writing machine	C. J. A. Sjoberg	445,128	Jan. 20	1844	{ 477 478	54	376
Type-writing machine	C. Spiro	445,333	Jan. 27	2164	561	54	448
Type-writing machine	C. Spiro	447,438	Mar. 3	272	69	54	1169
Type-writing machine	C. Spiro	454,080	June 16	1355	{ 353 354	55	1421
Type-writing machine	C. Spiro	458,241	Aug. 25	2140	525	56	961
Type-writing machine	C. Spiro	463,464	Nov. 17	1977	{ 515 516	57	951
Type-writing machine	C. Spiro	464,398	Dec. 1	606	{ 149 150 228	57	1249
Type-writing machine	B. M. Steele	459,149	Sept. 8	947	{ 229 230	56	1257
Type-writing machine	A. W. Steiger	452,417	May 19	1578	391	55	890
Type-writing machine	A. W. Steiger	454,668	June 23	2266	582	55	1600
Type-writing machine	A. W. Steiger	461,553	Oct. 20	1648	403	57	330
Type-writing machine	D. C. Stover	446,719	Feb. 17	1969	{ 491 492	54	914
Type-writing machine	D. C. Stover	446,720	Feb. 17	1976	{ 492 493	54	915
Type-writing machine	D. H. Taylor	451,082	Apr. 28	2222	550	55	456
Type-writing machine	I. G. Todd	466,025	Dec. 29	3256	830	57	1794
Type-writing machine	G. C. Towle	466,200	Dec. 29	3518	{ 900 901	57	1845
Type-writing machine	G. C. Towle	466,270	Dec. 29	3629	{ 928 929	57	1866
Type-writing machine	H. H. Unz	449,640	Mar. 31	3871	969	54	1885
Type-writing machine	F. X. Wagner	454,692	June 23	2299	{ 589 590 591	55	1607
Type-writing machine	C. W. Walker	451,629	May 5	286	69, 70	55	633
Type-writing machine	D. C. Way	460,901	Oct. 6	567	{ 144 145	57	111
Type-writing machine	G. B. Webb	453,683	June 9	791	{ 204 205	55	1305
Type-writing machine	G. B. Webb	465,905	Dec. 29	3034	777	57	1753
Type-writing machine	R. W. Whitney	445,213	Jan. 27	1986	{ 512 513	54	412
Type-writing machine	F. E. Wilder	447,720	Mar. 3	709	{ 177 178	54	1252
Type-writing machine	A. Woodruff	445,214	Jan. 27	1989	513	54	413
Type-writing machine	G. H. Woods	461,790	Oct. 20	2030	501	57	402
Type-writing machine	H. A. Wright	449,021	Mar. 24	2830	{ 717 718	54	1683
Type-writing machine	G. W. N. Yost	447,859	Mar. 10	964	242	54	1307
Type-writing machine	G. W. N. Yost	450,805	Apr. 21	1796	436	55	365
Type-writing machine	G. W. N. Yost	450,806	Apr. 21	1798	437	55	366
Type-writing machine	G. W. N. Yost	452,421	May 19	1582	{ 392 393	55	891
Type-writing machine	G. W. N. Yost	456,350	July 21	1654	{ 437 438	56	333
Type-writing machine	G. W. N. Yost and C. E. Merritt	450,324	Apr. 14	1024	252	55	203
Type-writing-machine attachment	A. C. Albright	452,057	May 12	976	248	55	769
Type-writing machine. Electric	E. J. Silkman	448,271	Mar. 17	1633	{ 416 417 418	54	1447
Type-writing machine. Electrical	J. F. McLaughlin	453,430	June 2	407	{ 105 106	55	1224
Type-writing machine. Electrical	E. F. Youngs	449,933	Apr. 7	417	104	55	82
Type-writing-machine paper-guide	J. H. Osgood	458,111	Aug. 18	1925	500	56	914
Type-writing machines. Card-holding attachment for	C. McGrew	452,547	May 19	1792	{ 450 451	55	927
Type-writing machines. Carriage-feeding mechanism for	J. F. Frankey	458,567	Sept. 1	30	6, 7	56	1071
Type-writing machines. Carriage mechanism for	J. F. Frankey	458,566	Sept. 1	27	5, 6	56	1070
Type-writing machines. Cleaning attachment for	A. Pursell	457,620	Aug. 11	1139	291	56	754
Type-writing machines. Cleaning attachment for	C. E. Tomlinson	464,221	Dec. 1	339	82	57	1197
Type-writing machines. Desk for	C. Larson	465,443	Dec. 15	2290	{ 587 588	57	1591
Type-writing machines. Inking-ribbon-spool mounting for	H. Ray	445,265	Jan. 27	2072	534	54	428
Type-writing machines. Key-locking mechanism for	D. Heston	456,033	July 14	1172	307	56	231
Type-writing machines. Music-writing attachment for	J. H. Green	455,319	July 7	31	8, 9	56	9
Type-writing machines. Paper-carrying attachment for	W. B. Wright	448,288	Mar. 17	1677	425	54	1455
Type-writing machines. Paper-feed device for	C. H. Winton and J. S. Lucock	452,470	May 19	1678	422	55	906
Type-writing machines. Platen for	H. Abbott	449,191	Mar. 31	3105	783	54	1744
Type-writing machines. Reverse-movement attachment for	H. O. Hooper	445,406	Jan. 27	2269	589	54	468
Type-writing machines. Ribbon-feed reversing mechanism for	J. Pusey	446,886	Feb. 24	2252	561	54	979
Type-writing machines. Ribbon for	L. H. Rogers	455,263	June 30	3291	833	55	1804
Type-writing machines. Shifter-stop for	M. B. Baldrige	453,531	June 2	555	142	55	1252
Type-writing machines. Type-bar for	S. N. Gallup	445,170	Jan. 27	1922	496	54	400
Type-writing machines. Type cleaner for	W. S. Boyd	445,519	Jan. 27	2430	634	54	499

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Type-writing machines. Type-cleaning attachment for	W. B. Northrop	450,473	Apr. 14	1256	307	55	246
Type-writing machines. Type-cleaning brush for	F. Van Fleet	447,141	Feb. 24	2703	670	54	1061
Type-writing machines. Type-cleaning brush for	F. Van Fleet	450,126	Apr. 7	705	177	55	137
Type-writing machines. Type-cleaning brush for	F. Van Fleet	457,684	Aug. 11	1229	319	56	771
Type-writing machines. Type-holding device for	C. L. Hibbard	454,271	June 16	1632	428	55	1476
Type-writing machines. Type lever and hanger for	W. H. Briggs	448,875	Mar. 24	2622	658	54	1642
Type-writing machines. Upper-case treadle attachment for	A. M. Rothert	455,116	June 30	3059	777	55	1759
Type-written and printed work. Assimilating combined	C. F. Beezley	455,467	July 7	265		56	53
Udder-protector	H. H. Chase	462,664	Nov. 3	688	174	57	683
Ultramarine. Apparatus for the manufacture of	F. Curtius-Brockhoff	454,856	June 30	2564	639	55	1664
Umbrella	A. S. Hnbbell	453,301	June 2	183	50	55	1182
Umbrella	A. Silber	459,025	Sept. 8	755	182	56	1220
Umbrella	T. J. Thorp	449,716	Apr. 7	110	29	55	24
Umbrella	A. Weigand	445,707	Feb. 3	317	84	54	575
Umbrella and cane. Combined	L. B. Brice	448,203	Mar. 17	1523	390	54	1426
Umbrella and cane. Combined	W. H. G. Ellis	465,320	Dec. 15	2088	533	57	1551
Umbrella and fan. Combined	J. Lorensen	459,934	Sept. 22	2208	554	56	1514
Umbrella attachment	H. Blassberg	454,395	June 16	1819	475	55	1510
Umbrella-bracket	A. A. Sherman	444,769	Jan. 13	1241	322	54	251
Umbrella-cabinet	J. S. Bahr	455,604	July 7	502	130	56	97
Umbrella-case	H. H. Freer	462,249	Nov. 3	45	11	57	560
Umbrella-drip-cup	H. A. Runkle	461,849	Oct. 27	2126	524	57	429
Umbrella-fixture	F. Martin	453,934	June 9	1148	300	55	1375
Umbrella. Folding	J. M. Harmer	455,591	July 7	477	123	56	92
Umbrella-holder	B. J. Bonn	452,253	May 12	1309	327	55	830
Umbrella-holder	J. C. Garrott	450,485	Apr. 14	1275	312	55	249
Umbrella-holder	C. M. Van Orman	456,175	July 21	1374	365	56	280
Umbrella or other sticks. Machine for slotting and boring	J. B. Jesson and J. K. Weed	445,145	Jan. 20	1880	485	54	383
Umbrella or parasol	L. H. Clogg	457,449	Aug. 11	868	225	56	702
Umbrella or parasol	C. H. Ely, J. W. Danser, and F. B. Rue	456,405	July 21	1750	463	56	351
Umbrella or parasol	J. F. Judy and N. H. Wilson	444,359	Jan. 6	587	151	54	117
Umbrella or parasol	C. E. Metzger	460,791	Oct. 6	408	99	57	81
Umbrella or parasol	J. T. Smith	457,228	Aug. 4	464	122	56	620
Umbrella or parasol	J. T. Smith	462,171	Oct. 27	2626	655	57	525
Umbrella or parasol	C. J. Swart	446,542	Feb. 17	1706	419	54	863
Umbrella or shade holder	J. H. Johnson	458,301	Aug. 25	2252	550	56	981
Umbrella-rack	J. Parker	465,287	Dec. 15	2039	520	57	1541
Umbrella rack or stand	C. R. Risdon	449,173	Mar. 31	3069	776	54	1738
Umbrella-runner	R. Ardrey	458,884	Sept. 1	532	129	56	1167
Umbrella-runner	H. S. Frost	458,972	Sept. 1	659	161	56	1194
Umbrella-runner	E. L. Glenn	462,044	Oct. 27	2432	603	57	488
Umbrella-runner retainer	J. B. Jesson	458,851	Sept. 1	471	113	56	1156
Umbrella-tip cup	A. Revel	457,607	Aug. 11	1119	285	56	750
Under-garment	C. A. Brown	465,452	Dec. 22	2308	592	57	1603
Under-garment	C. A. Brown	465,453	Dec. 22	2309	593	57	1604
Under-garment. Combination	C. C. Mustin	462,913	Nov. 10	1105	288	57	774
Under-garment. Combination	G. O'Brien	454,812	June 23	2495	641	55	1644
Under-garment. Combination	G. O'Brien	454,813	June 23	2495	641	55	1644
Unicycle	G. Blaser	462,295	Nov. 3	120	31	57	574
Unicycle	H. C. Ross	459,310	Sept. 8	1192	289	56	1305
Unloading apparatus	R. S. Kirkpatrick	449,448	Mar. 31	3559	897	54	1827
Upholstery purposes. Curing sedge-grass for	T. J. Gwin	451,044	Apr. 28	2178		55	446
Uppor-machine	C. H. Farrington	446,674	Feb. 17	1901	472	54	901
Upright boiler	F. Wild	453,766	June 9	927	241	55	1331
Upright case or tool-receptacle	E. G. Lamson	456,728	July 28	2287	605	56	462
Upsetting-machine	G. S. Comstock	459,995	Sept. 22	2287	573	56	1528
Upsetting-machine	W. Cooke and D. Carrough	455,541	July 7	394	103	56	76
Urinal	W. H. Johnson and T. Kruse	453,118	May 26	2709	682	55	1115
Urinal	J. W. Plain	444,074	Jan. 6	152	38	54	33
Urinal or water-closet	S. G. McFarland	460,485	Sept. 29	3037	761	56	1679
Urinal-washout	P. White	456,073	July 14	1223	321	56	241
Urinals. Discharge-pipe for	L. J. Griffin	446,345	Feb. 10	1391	349	54	788
Urinals. Extension-joint for	J. Shepard	465,566	Dec. 22	2504	639	57	1640
Urinals. Flushing device for	R. Murphy and C. W. Atkinson. (Re-issue.)	11,215	Dec. 29	3706	946	57	1881
Utensil. Combination household	S. Welch	449,147	Mar. 31	3034	767	54	1731
Uterine supporter	P. Yost	445,665	Feb. 3	239	65	54	558
Uterine supporter. Electric	G. F. Mohn	458,536	Aug. 25	2627	639	56	1053
Vacuum apparatus	F. M. Peck and G. R. Case	461,925	Oct. 27	2260	559	57	456
Vacuum cleaner	F. R. Baldwin	451,387	Apr. 28	2709	672	55	519
Vacuum-engine	L. A. Brott	448,907	Mar. 24	2665	669	54	1651
Vacuum-pau	F. H. Flottnann	417,673	Mar. 3	636	158	54	1238
Valise	W. M. Kain	451,055	Apr. 28	2191	541	55	449
Valise	G. M. Powell	451,843	May 5	601	149	55	694
Valve	C. S. Bavier	452,357	May 19	1486	368	55	872
Valve	S. M. Beery	459,132	Sept. 8	924	222	56	1253
Valve	G. W. Burr	444,156	Jan. 6	293	70	54	60
Valve	C. F. A. Convert	465,835	Dec. 29	2915	746	57	1730
Valve	W. H. Crawford	446,059	Feb. 10	900	218	54	695
Valve	R. M. and J. G. Downie	454,613	June 23	2185	564	55	1586
Valve	J. Dreisörner	459,271	Sept. 8	1134	277	56	1293
Valve	F. J. Ferrell	450,451	Apr. 14	1224	299	55	240
Valve	F. J. Ferrell	462,762	Nov. 10	857	225	57	725
Valve	I. N. and J. H. Glauber	459,201	Sept. 8	1030	251	56	1272
Valve	P. H. Gundermann	456,288	July 21	1566	413	56	316
Valve	C. I. Hall	465,095	Dec. 15	1726	438	57	1423

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Valve.....	T. W. Heermans.....	464,687	Dec. 8	1053	262	57	1345
Valve.....	J. King.....	461,440	Oct. 20	1408	355	57	287
Valve.....	G. B. Moore.....	459,044	Sept. 8	783	190	56	1225
Valve.....	E. W. Naylor.....	462,727	Nov. 10	803	209	57	715
Valve.....	R. Pattee.....	454,661	June 23	2256	579	55	1598
Valve.....	J. J. Reilly.....	461,275	Oct. 13	1129	288	57	225
Valve.....	A. Roedel, Jr.....	465,803	Dec. 22	2856	731	57	1709
Valve.....	E. W. Storer.....	457,680	Aug. 11	1225	315	56	770
Valve.....	L. W. Toomey.....	459,797	Sept. 22	1985	499	56	1471
Valve.....	A. T. Waldron.....	447,590	Mar. 3	523	128	54	1215
Valve.....	E. N. Whitaker.....	463,431	Nov. 17	1932	504	57	941
Valve. Air.....	J. B. Dunlop.....	455,899	July 14	970	253	56	194
Valve and connection of wash-basins and the like. Waste and water pipe	J. R. Whiting.....	449,969	Apr. 7	569	127	53	99
Valve and faucet. Lock.....	C. E. Mason.....	447,962	Mar. 10	1137	286	54	1340
Valve and gear. Cut-off.....	B. F. Fitch.....	453,173	May 26	2830	{ 709 710 }	55	1134
Valve and nozzle for street-sprinklers, &c.....	H. K. Potter.....	456,538	July 21	1972	520	56	393
Valve and plate. Combined pipe-coupling.....	V. Seeger.....	455,008	June 30	2872	730	55	1723
Valve and seat for steam-engines.....	J. Wheelock.....	455,810	July 14	846	222	56	170
Valve and trap for bath-tubs, sinks, &c. Outlet.....	J. Clifford.....	458,997	Sept. 8	701	172	56	1210
Valve and valve mechanism.....	P. J. Steinmesse.....	457,594	Aug. 11	1101	281	56	747
Valve. Automatic.....	J. Clapp.....	459,198	Sept. 8	1026	{ 250 251 }	56	1271
Valve. Automatic.....	J. D. McRae.....	464,582	Dec. 8	880	217	57	1313
Valve. Automatic.....	A. F. Nagle.....	461,447	Oct. 20	1419	358	57	289
Valve. Automatic stop.....	H. W. Forslund and W. H. Wells, Jr.	461,427	Oct. 20	1386	{ 350 351 }	57	282
Valve. Automatically-governed.....	L. N. Charles.....	458,247	Aug. 25	2149	527	56	963
Valve. Back-pressure.....	J. H. McGowan.....	446,002	Feb. 10	809	196	54	678
Valve. Back-pressure.....	W. L. Shepard.....	455,853	July 14	901	236	56	181
Valve. Balanced.....	E. P. Cowles.....	465,242	Dec. 15	1961	{ 501 502 }	57	1528
Valve. Balanced.....	T. Tripp.....	457,884	Aug. 18	1571	{ 408 409 }	56	845
Valve. Balanced slide.....	C. Eversol.....	462,119	Oct. 27	2555	634	57	511
Valve. Balanced slide.....	F. C. Hettinger.....	462,816	Nov. 10	948	247	57	744
Valve. Balanced slide.....	H. Moon.....	450,470	Apr. 14	1251	306	55	245
Valve. Balanced slide.....	H. C. Nichols.....	457,211	Aug. 4	438	{ 114 115 116 }	56	615
Valve. Balanced slide.....	R. E. Vandeventer.....	462,518	Nov. 3	464	{ 113 114 }	57	639
Valve. Balanced steam.....	W. F. Browne.....	461,214	Oct. 13	1040	264	57	206
Valve. Balanced steam.....	G. A. Kelly.....	463,156	Nov. 17	1492	386	57	857
Valve. Balanced three-way.....	G. Miles.....	461,981	Oct. 27	2341	{ 580 581 }	57	471
Valve. Ball cock.....	T. R. Keyworth, Jr.....	449,351	Mar. 31	3380	852	54	1792
Valve-boxes of cylinders of steam-engines. Machine for boring the	G. H. Corliss.....	450,402	Apr. 14	1156	282	55	227
Valve-boxes of steam-engine cylinders. Machine for finishing the ends of	G. H. Corliss.....	450,400	Apr. 14	1152	281	55	227
Valve boxes of steam-engines. Machine for fitting the exhaust.	G. H. Corliss.....	450,403	Apr. 14	1158	283	55	227
Valve. Center-seal and by-pass.....	W. Crighton.....	449,578	Mar. 31	3750	942	54	1862
Valve. Check.....	J. R. Goehring.....	459,576	Sept. 15	1632	408	56	1397
Valve-chest bushing.....	R. L. Frost.....	458,623	Sept. 1	117	26	56	1089
Valve. Compound-engine.....	J. H. Eickershoff.....	461,896	Oct. 27	2203	543	57	445
Valve-controller. Automatic electric.....	F. E. Chataud.....	450,927	Apr. 21	1979	486	55	400
Valve-controller. Electric.....	C. B. Readon.....	450,872	Apr. 21	1910	{ 468 469 }	55	386
Valve-controller. Electric.....	G. E. Turner.....	449,889	Apr. 7	365	92	55	72
Valve-controller. Electrical.....	J. V. Stout.....	461,554	Oct. 20	1650	{ 403 404 }	57	330
Valve-controllers. Shunt-magnet for.....	J. V. Stout.....	461,535	Oct. 20	1653	404	57	331
Valve-controlling apparatus.....	C. Kammerer.....	451,937	May 12	764	193	55	730
Valve-controlling mechanism for engines.....	F. R. Skidmore.....	463,845	Nov. 24	2582	{ 672 673 }	57	1075
Valve-controlling mechanism for gas-engines.....	H. C. Fletcher.....	456,256	July 21	1512	401	56	906
Valve. Cut-off.....	J. B. Brand.....	458,311	Aug. 25	2266	553	56	383
Valve. Cut-off.....	J. H. King.....	449,123	Mar. 31	2997	757	54	1725
Valve. Cut-off.....	W. H. Laurie.....	452,978	May 26	2483	628	55	1071
Valve. Dip-pipe.....	W. Anderson.....	462,462	Nov. 3	389	96	57	624
Valve. Drain.....	J. Phillipson.....	462,822	Nov. 10	958	249	57	745
Valve-dressing machine.....	C. H. Sampson and P. J. Wright.....	464,617	Dec. 8	935	231	57	1324
Valve. Drip.....	H. Howell.....	453,189	June 2	17	6	55	1152
Valve. Electrically-controlled.....	J. V. Stout.....	448,273	Mar. 17	1643	{ 418 419 }	54	1449
Valve. Engine.....	E. F. Gordon.....	465,925	Dec. 29	3062	786	57	1758
Valve. Engineer's air-brake.....	J. T. Wilson.....	461,725	Oct. 20	1921	{ 475 476 }	57	381
Valve. Engineer's brake.....	G. A. Boyden.....	445,132	Jan. 20	1850	479	54	377
Valve. Engineer's brake.....	H. R. Mason.....	461,170	Oct. 13	954	{ 246 247 }	57	190
Valve. Filter-manipulating.....	J. A. Bowden.....	450,133	Apr. 14	720	180	55	146
Valve. Float.....	W. E. Cone.....	463,286	Nov. 17	1691	442	57	896
Valve. Float.....	H. P. Cope.....	444,335	Jan. 6	554	143	54	110
Valve. Flushing.....	E. W. Stuart.....	464,590	Dec. 8	894	220	57	1316
Valve. Flushing.....	W. Strong.....	459,918	Sept. 22	2185	549	56	1509
Valve for air-brakes. Automatic.....	A. P. Massey.....	447,337	Mar. 3	92	26	54	1136
Valve for air-brakes. Automatic cut-in.....	L. S. Riggs.....	453,505	June 2	516	133	55	1245
Valve for air-brakes. Brake.....	H. R. Mason.....	450,332	Apr. 14	1036	255	55	205
Valve for air-fines.....	E. C. Condit.....	457,180	Aug. 18	1442	375	56	822
Valve for automatic brake mechanism. Triple.....	F. Moore.....	453,814	May 26	2769	697	55	1126
Valve for automatic brake mechanisms. Triple.....	F. Moore.....	445,963	Feb. 3	729	178	54	655

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Valve for automatically venting hot-water heating-radiators.	C. E. Van Auken	458,202	Aug. 25	2070	536	56	947
Valve for compound engines.	F. W. Johnstone	464,175	Dec. 1	252	62	57	1183
Valve for compound engines. Piston.	J. Marshall	462,149	Oct. 27	2595	646	57	519
Valve for compound engines. Starting.	F. W. Johnstone	460,581	Oct. 6	59	14, 15	57	13
Valve for compound engines. Starting.	A. H. Wallis	466,096	Dec. 29	3257	830	57	1794
Valve for compound engines. Starting.	W. B. Yeo	449,457	Mar. 31	3572	900	54	1829
Valve for continuous ventilation. Mixing.	C. G. and R. L. Short	464,945	Dec. 8	1436	361	57	1420
Valve for drain-pipes. Air.	E. S. McClellan	465,534	Dec. 22	2453	625	57	1630
Valve for expansion-pipes. Safety.	A. Bryant and W. J. Crow	449,243	Mar. 31	3179	802	54	1758
Valve for fire-extinguishers. Automatic.	L. Fortier	464,264	Dec. 1	415	99	57	1213
Valve for fluid-pressure signaling apparatus.	F. Moore	453,604	June 2	663	171	55	1273
Valve for gage-cocks. Cut-out.	J. S. Boes	465,091	Dec. 15	1719	437	57	1482
Valve for gas-burning furnaces.	J. W. Higgins	452,347	May 12	1464	362	55	858
Valve for gas-furnaces.	C. H. Holton	457,118	Ang. 4	283	74	56	587
Valve for heaters, &c. Duplex eccentric.	J. Dreisörner	453,109	May 26	2699	650	55	1113
Valve for hydraulic forging-machines. Governor.	W. Burnham	452,360	May 19	1491	369	55	873
Valve for inflatable wheel-tires. Air.	E. R. De Wolfe	460,714	Oct. 6	295	72	57	58
Valve for locomotives. Blower.	G. A. Ayer	456,240	July 21	1490	396	56	301
Valve for pneumatic tires.	W. Heale	462,815	Nov. 10	947	246	57	743
Valve for radiators. Air.	J. P. Marsh	462,845	Nov. 10	998	258	57	753
Valve for regenerative stoves or furnaces.	S. Forter	464,195	Dec. 1	292	71, 72	57	1190
Valve for rock-drills.	A. W. and Z. W. Daw	456,801	July 28	2409	634 635 636	56	484
Valve for sinks or water-closets.	A. A. and F. B. Stont	454,889	June 30	2630	675	55	1676
Valve for steam and basin cocks.	F. P. Werner	459,728	Sept. 15	1879	473	56	1444
Valve for steam-cylinders.	H. Watkeys	453,800	June 9	979	255	55	1341
Valve for steam-cylinders. Relief.	A. F. Hall	458,845	Sept. 1	462	111	56	1154
Valve for steam-engines. Balanced.	H. Canfield	448,876	Mar. 24	2623	659	54	1642
Valve for steam-engines. Cut-off.	E. Hill	457,558	Aug. 11	1042	267	56	736
Valve for steam-engines. Oscillating.	J. Cheek	446,056	Feb. 10	897	218	54	694
Valve for steam-engines. Reversing.	P. Maltby	452,455	May 19	1641	410	55	901
Valve for steam-engines. Rotary.	S. Grant, Jr.	444,066	Jan. 6	137	34	54	30
Valve for steam-heating systems.	E. E. Gold	450,767	Apr. 21	1728	418	55	353
Valve for steam-winch.	P. Cramer	463,140	Nov. 17	1466	381	57	853
Valve for supplying hot-water radiators and for other purposes.	W. M. Mackay	452,453	May 19	1638	410	55	901
Valve for tanks. Float.	J. C. Beekman and H. G. Hubener	449,242	Mar. 31	3178	801	54	1758
Valve for vapor-stoves.	C. M. Hollingsworth	457,779	Aug. 18	1391	359	56	812
Valve for water-gages. Safety.	F. H. T. Thomsen	464,049	Dec. 1	62	17	57	1149
Valve for water, steam, &c.	W. Thomson	447,211	Feb. 24	2815	696 697	54	1084
Valve for water-tanks.	R. Tait	459,394	Apr. 28	2721	676	55	551
Valve. Gas regulating and cut-off.	H. Kennedy	457,203	Aug. 4	426	110 111	56	613
Valve-gear.	D. M. Bornarth	457,932	Aug. 18	1659	434	56	862
Valve-gear.	W. J. Cunningham	451,812	May 5	558	138	55	685
Valve-gear.	M. Greenwood	445,810	Feb. 3	505	121	54	610
Valve-gear.	M. Greenwood	446,406	Feb. 10	1490	367	54	807
Valve-gear.	J. Howden	456,414	July 21	1768	468	56	354
Valve-gear.	A. Riedler	459,515	Sept. 15	1530	382	56	1378
Valve-gear. Cut-off.	A. M. Sykes	454,411	June 16	1855	485	55	1517
Valve-gear. Engine.	F. H. Ball	454,447	June 23	1906	497	55	1536
Valve-gear. Engine.	S. T. Bruce	460,628	Oct. 6	152	37	57	32
Valve-gear. Engine.	E. J. Woolf	444,563	Jan. 13	923	240 241	54	191
Valve-gear. Engine.	E. J. Woolf and J. Peebles	455,872	July 14	929	243 244	56	187
Valve-gear for compound engines.	H. C. White	463,182	Nov. 17	1534	400 401	57	865
Valve-gear for engines. Reversing.	J. C. Nicholson	459,525	Sept. 15	1551	326	56	1382
Valve-gear for ore-stamps.	C. Kendrick, Jr.	451,765	May 5	497	123	55	672
Valve-gear for pumping-engines.	M. Misic and E. Schweizer	461,640	Oct. 20	1787	440	57	356
Valve-gear for regulating the speed of motors.	T. Deakin	464,661	Dec. 8	1003	250 251	57	1337
Valve gear for steam-engines. Safety.	N. T. Greene	444,699	Jan. 13	1120	289	54	229
Valve. Globe.	S. C. Berry	457,629	Aug. 11	1150	294	56	756
Valve-gear. Hydraulic.	E. S. Matthews	446,836	Feb. 17	2153	535	54	953
Valve-gear. Hydraulic.	E. S. Matthews	453,980	June 9	1209	315	55	1387
Valve-gear. Link.	W. A. Winn	463,018	Nov. 10	1260	327	57	804
Valve-gear. Releasing.	E. C. Flagg	463,383	Nov. 17	1856	485	57	927
Valve gear. Steam-actuated cut-off.	H. Bolthoff	451,719	May 5	418	101 102	55	658
Valve-gear. Steam-engine.	L. D. Davis	461,406	Oct. 13	1356	341	57	270
Valve-gear. Steam-engine.	E. S. Van Horn and L. D. Allabach	461,992	Oct. 27	2358	585	57	474
Valve. Governor.	F. N. Burt	454,423	June 16	1870	489	55	1520
Valve. Gridiron.	C. J. Mellin	454,875	June 30	2598	667	55	1670
Valve-handle.	J. B. and W. Heighington	447,684	Mar. 3	655	162	54	1242
Valve. Hydraulic.	H. Aiken	465,232	Dec. 15	1944	495 496	57	1525
Valve. Hydraulic.	H. W. Forslund	463,211	Nov. 17	1575	410	57	873
Valve. Hydraulic.	E. S. Matthews	465,611	Dec. 22	2577	656	57	1653
Valve. Hydraulic-elevator.	C. I. Hall	463,042	Nov. 10	1297	336	57	811
Valve. Hydraulic-elevator.	C. I. Hall	466,331	Dec. 29	3566	913	57	1854
Valve. Indicating.	J. O. Jackson and N. Macbeth	453,274	June 2	147	41	55	1176
Valve. Locking.	G. B. Haines	462,639	Nov. 3	660	166	57	678
Valve. Locomotive.	C. R. Killingbeck	453,400	June 2	340	88	55	1211
Valve lubricator. Slide.	I. J. Leiter	463,904	Nov. 24	2683	698	57	1093
Valve. Manifold.	A. Blankerts	456,446	July 28	1986	324	56	404
Valve mechanism.	T. P. Sanborn	465,208	Dec. 15	1909	484	57	1517
Valve mechanism for air-brakes. Auxiliary regulating.	A. P. Riggs	457,670	Aug. 11	1208	310 311	56	767
Valve mechanism for carbonic-acid-gas generators.	F. J. Johnston	450,076	Apr. 7	631	158	55	123

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Valve mechanism for hydraulic elevators	A. Sundh	454,410	June 16	1851	484	55	1516
Valve mechanism for rock-drills	H. Ball	455,090	June 30	3014	766	55	1751
Valve mechanism. Steam-engine	E. K. Hill	450,866	Apr. 21	1898	465	55	384
Valve mechanism. Steam-engine	M. Jacker	465,576	Dec. 22	2523	643	57	1643
Valve-motion for duplex engines	C. C. Worthington	455,555	July 7	414	{ 109 110 }	{ 56 80 }	
Valve-motion for rock-drills	H. Ball	455,089	June 30	3012	766	55	1751
Valve-motion mod'l. Link	F. J. Miller and J. A. Hill	461,772	Oct. 20	2003	{ 494 495 }	{ 57 397 }	
Valve. Muffled pop safety	A. C. Meady	452,230	May 12	1268	320	55	823
Valve of hydraulic cylinders, &c. Apparatus for actuating and controlling the	L. S. Wright	451,100	Apr. 28	2248	557	55	461
Valve-operating device. Elevator	H. A. Beidler	460,934	Oct. 6	617	158	57	120
Valve-operating gear for gas, petroleum, or other similar engines	C. Gramm	453,080	May 26	2652	669	55	1103
Valve-operating mechanism	J. Tregoning	462,805	Nov. 10	928	242	57	740
Valve-operating mechanism and thermostatic index and controlling device therefor. Automatic	W. E. Eastman	458,226	Aug. 25	2117	549	56	957
Valve-operating mechanism for tanks	J. King	461,439	Oct. 20	1406	355	57	286
Valve. Piston	W. D. May	453,017	May 26	2541	643	55	1082
Valve. Pop safety	J. M. Coale	459,268	Sept. 8	1130	276	56	1293
Valve. Pop safety	J. M. Coale	461,237	Oct. 13	1079	273	57	215
Valve. Pop safety	A. Fogel	461,149	Oct. 13	918	238	57	184
Valve. Puppet	W. W. St. John	463,175	Nov. 17	1526	397	57	863
Valve-regulating governor for gas-engines	M. M. Barrett and J. F. Daly	463,436	Nov. 17	1940	506	57	943
Valve. Relief	C. Callahan	445,041	Jan. 20	1718	{ 441 442 }	{ 54 351 }	
Valve. Relief	T. W. Moran	444,782	Jan. 13	1257	326	54	253
Valve. Relief	V. Popp	455,292	June 30	3364	848	55	1818
Valve-reseating machine	C. L. Morse	456,704	July 28	2214	{ 594 595 }	{ 56 453 }	
Valve. Reversing	H. T. Clarke	456,886	July 28	2556	672	56	510
Valve. Reversing engine	R. W. Mewes	456,832	Dec. 28	2465	648	56	493
Valve. Rotary	H. Bronsseau and G. Patterson	465,917	Dec. 29	3053	782	57	1756
Valve. Rotary	F. Schneider	449,181	Mar. 31	3087	778	54	1740
Valve. Safety	J. M. Coale	459,104	Sept. 8	885	212	56	1245
Valve. Safety	F. W. Fisher	458,891	Sept. 1	542	132	56	1169
Valve. Safety	J. T. Hayden	451,210	Apr. 28	2445	604	55	497
Valve. Safety	I. F. Kearns	447,523	Mar. 3	424	104	54	1197
Valve. Safety	E. B. Kunkle	446,757	Feb. 17	2032	506	54	927
Valve. Safety	J. Loftus	446,782	Feb. 17	2061	513	54	933
Valve. Safety	A. Lohbiller	463,261	Nov. 17	1661	434	57	890
Valve. Safety	W. McShane	448,065	Mar. 10	1300	332	54	1372
Valve. Safety	W. Scott	455,476	July 7	279	71	56	56
Valve. Safety check	R. F. Rice	460,022	Dec. 29	3251	828	57	1793
Valve-seats. Regrinding-tool for	J. McGarvey	460,380	Sept. 29	2887	721	56	1651
Valve. Sewer-flush check	J. J. Wade	447,387	Mar. 3	183	49	54	1153
Valve. Sheef-metal check	C. E. Buckley	464,812	Dec. 8	1244	311	57	1381
Valve. Slide	W. R. Hinsdale	444,438	Jan. 13	715	{ 187 188 }	{ 54 149 }	
Valve. Steam	G. S. Bell	448,626	Mar. 24	2229	559	54	1568
Valve. Steam	B. F. Bennix	456,395	July 21	1738	459	56	348
Valve. Steam	W. K. Carroll	463,138	Nov. 17	1462	379	57	852
Valve. Steam-actuated	J. H. Baker	449,808	Apr. 7	339	87	55	68
Valve. Steam-actuated	A. Ball	457,505	Aug. 11	966	{ 245 246 }	{ 56 719 }	
Valve. Steam-actuated	H. Beisheim	459,120	Sept. 8	909	218	56	1249
Valve. Steam-actuated	W. Franks	460,858	Oct. 6	495	{ 126 127 }	{ 57 98 }	
Valve. Steam-actuated	I. N. Moore	454,753	June 23	2389	613	55	1626
Valve. Steam-engine	A. P. Bliven	459,151	Sept. 8	954	{ 230 231 }	{ 56 1258 }	
Valve. Steam-engine	A. F. Devereux	460,200	Sept. 29	2609	651	56	1597
Valve. Steam-engine	J. Frew	463,260	Nov. 17	1657	{ 431 432 433 434 }	{ 57 890 }	
Valve. Steam-engine	A. L. Ide	447,490	Mar. 3	375	92	54	1189
Valve. Steam-engine	L. A. Le Mieux	465,670	Dec. 22	2668	680	57	1671
Valve. Steam-engine	F. D. Toucey	456,174	July 21	1373	365	56	280
Valve. Steam-engine	J. E. Waterous	449,504	Mar. 31	3639	916	54	1843
Valve. Steam stop	J. H. Blessing	451,848	May 5	605	150	55	685
Valve. Steam, water, and fluid	F. M. Metcalf	452,312	May 12	1388	345	55	844
Valve. Stop	J. Robinson	454,007	June 9	1249	325	55	1385
Valve. Straight-way	E. Lunkenheimer	450,588	Apr. 14	1413	348	55	279
Valve. Straight-way	E. Lunkenheimer	457,128	Aug. 4	295	77	56	590
Valve. Straight-way	E. Lunkenheimer	459,408	Sept. 15	1367	343	56	1348
Valve. Straight-way	G. P. Vincent	463,016	Nov. 10	1256	326	57	801
Valve. Swinging angular	H. A. Goll	461,206	Oct. 13	1024	260	57	203
Valve. Tank	C. D. Moody	455,257	June 30	3222	832	55	1802
Valves. Device for setting engine	F. W. Williams	448,490	Mar. 17	2001	501	54	1517
Valves. Machine for refitting	C. F. Hall	453,001	May 26	2521	638	55	1078
Valves. Machine for refitting	C. F. Hall	455,507	July 7	325	83	56	65
Valves. Machine for refitting	C. F. Hall	463,787	Nov. 24	2492	650	57	1057
Valves or cocks. Apparatus for automatically operating	K. S. Murray	463,534	Nov. 17	2078	{ 546 547 }	{ 57 970 }	
Valves. Testing-yoke for safety	J. E. Lonergan	455,001	June 30	2858	727	55	1720
Vamp-marking machine	C. H. Bayley	456,542	July 28	1981	523	56	403
Vamp-marking machine	J. F. Rogers	454,987	June 30	2825	719	55	1714
Vamp-skiving machine	W. H. Nevins	459,166	Sept. 8	981	239	56	1263
Vapor-bath apparatus	N. Crank	445,464	Jan. 27	2347	610	54	454
Vapor-bath. Folding	O. Pehrsson	445,432	Jan. 27	2307	{ 598 599 }	{ 54 477 }	
Vapor-burner	W. M. Abbott	459,694	Sept. 15	1821	457	56	1433

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Vapor-burner	W. M. Abbott	462,089	Oct. 27	2494	620	57	500
Vapor-burner	G. S. Grimston. (Reissue)	11,149	Mar. 10	1488	379	54	1411
Vapor-burner	W. R. Jeavons and J. A. Lannert	461,219	Oct. 13	1053	266	57	209
Vapor-burner	J. A. Lannert and W. R. Jeavons	455,966	July 14	1073	281	56	212
Vapor-burner	J. A. Lannert and W. R. Jeavons	464,076	Dec. 1	107	27	57	1158
Vapor-burner	H. Ruppel	455,361	July 7	98	28	56	23
Vapor-burner	W. A. Schauer	454,119	June 16	1407	367	55	1432
Vapor-burner	T. L. and T. J. Sturtevant	457,801	Aug. 18	1430	370	56	819
Vapor-burner	E. A. Thissell and W. H. Wilder	464,627	Dec. 8	949	234	57	1326
Vapor-burner	E. A. Thissell and W. H. Wilder	465,601	Dec. 22	2561	652	57	1650
Vapor-burner	W. H. Wilder	465,227	Dec. 15	1937	493	57	1523
Vapor-burner. Domestic	T. M. Painter	459,789	Sept. 22	1973	497	56	1468
Vapor-burner for steam-boilers	T. M. Painter	459,791	Sept. 22	1975	497	56	1469
Vapor-burners. Starter for.	R. F. Craig	457,934	Aug. 18	1662	{ 435 436 456 457	56	862
Vapor-engine	D. S. Regan	448,369	Mar. 17	1810	{ 524 525	54	1481
Vapor-generating device for vapor-burners	H. Ruppel	461,850	Oct. 27	2127	{ 524 525	57	429
Vapor or gas burner	G. P. Way	457,414	Aug. 11	819	210	56	692
Vapor or oil burner	J. J. Buhrop	452,861	May 26	2283	573	55	1032
Vapor-tension controller	L. Bell and F. H. Root	455,382	July 7	137	35	56	30
Vapors from foaming concentrated solutions. Method of and apparatus for separating	J. Patten	447,258	Feb. 24	2896	{ 719 720	54	1101
Vaporized solvents. Recovering	J. R. Whiting and W. A. Lawrence	450,501	Apr. 14	1299	318	55	256
Vaporizer	A. F. Henry	451,822	May 5	576	{ 141 142	55	689
Vaporizer	C. T. Kingzett	462,714	Nov. 10	782	204	57	710
Vaporizer	W. H. Murray	453,818	June 9	1002	{ 261 262	55	1346
Vaporizer	J. P. Robert	446,953	Feb. 24	2361	587	54	998
Vaporizer	G. M. Sherman	444,319	Jan. 6	530	138	54	106
Vaporizer and burner. Hydrocarbon	T. A. Lathrop	445,225	Jan. 27	2011	517	54	417
Vaporizer and burner. Hydrocarbon	R. Thompson	465,398	Dec. 15	2226	571	57	1577
Vaporizer for hydrocarbon or similar fluids	W. J. Kenderdine	465,668	Dec. 22	2665	680	57	1670
Vaporizing and feeding hydrocarbon. Apparatus for	Z. Davis	456,510	July 21	1921	508	56	383
Varnish	H. J. C. Bertling, F. W. Woekenfuss, and W. Meyer	451,705	May 5	399	.....	55	655
Varnish	E. N. Todd	450,264	Apr. 14	927	.....	55	185
Varnish, lacquer, or glue. Composition to be used as a	T. B. Osborne	456,772	July 28	2371	.....	56	477
Vat:							
See Dyeing-vat.							
Fermenting-vat.							
Vat and churn	J. Hansen	449,321	Mar. 31	3330	840	54	1783
Vault-heater	A. G. Stapel	463,926	Nov. 24	2726	707	57	1100
Vault or analogous structure	G. L. Remington	453,279	June 2	153	43, 44	55	1176
Vaulting-horse	F. Medart	455,819	July 14	862	225	56	173
Vaulting-horse	T. Peterson	450,186	Apr. 14	789	199	55	160
Vegetable-cleaner	A. L. Wheelock	465,036	Dec. 15	1624	413	57	1464
Vegetable-cutter	A. G. and E. J. Kyle	446,167	Feb. 10	1090	268	54	728
Vegetable-cutter	C. Orth	460,267	Sept. 29	2708	675	56	1617
Vegetable-cutter	J. S. Patten	466,183	Dec. 29	3496	893	57	1841
Vegetable cutter and slicer	M. Blumer	461,731	Oct. 20	1928	477	57	383
Vegetable fiber. Machine for cleaning	M. Villamor	464,782	Dec. 8	1202	{ 298 299	57	1372
Vegetable-masher	K. F. Taylor	456,863	July 28	2520	602	56	503
Vegetable slicing and grating device	T. Menze	463,525	Nov. 17	2056	539	57	967
Vegetables or fruit. Apparatus for scalding	T. Van Kannel	448,895	Mar. 24	2649	665	54	1647
Vehicle	W. S. Bacon and S. L. Holsinger	453,954	June 9	1173	306	55	1380
Vehicle	H. H. Botbe	463,936	Nov. 24	2742	711	57	1103
Vehicle	G. W. Coonse and O. E. Harris	446,172	Feb. 10	1098	269	54	730
Vehicle	J. J. Gilbert	456,112	July 14	1275	335	56	252
Vehicle	J. J. Gilbert	457,530	Aug. 11	998	{ 255 256	56	727
Vehicle	F. F. Landis	445,022	Jan. 20	1679	432	54	344
Vehicle	H. Seeman	462,168	Oct. 27	2622	654	57	524
Vehicle	B. F. Tucker	458,865	Sept. 1	495	121	56	1159
Vehicle-body	S. R. Bailey	455,730	July 14	717	189	56	147
Vehicle-body brace	A. Hoefler and F. L. G. Chapman	458,395	Aug. 25	2411	587	56	1011
Vehicle-brake	A. T. Bodle	461,414	Oct. 20	1370	347	57	279
Vehicle-brake	H. Caldwell	456,795	July 28	2400	632	56	482
Vehicle-brake	N. Cunningham	460,564	Oct. 6	33	8	57	8
Vehicle-brake	J. F. Dugan	459,272	Sept. 8	1136	{ 277 278	56	1294
Vehicle-brake	J. Egge	454,519	June 23	2015	523	55	1556
Vehicle-brake	E. Enderes	448,913	Mar. 24	2677	673	54	1654
Vehicle-brake	J. P. Gregory	447,512	Mar. 3	408	99	54	1194
Vehicle-brake	J. M. Hardin	464,966	Dec. 15	1484	373	57	1439
Vehicle-brake	C. Nittinger	446,464	Feb. 17	1587	390	54	840
Vehicle-brake	J. T. and G. Schuetz, Jr	460,890	Oct. 6	552	139	57	108
Vehicle-brake	H. C. Strout	455,804	July 14	833	219	56	168
Vehicle-brake. Automatic	A. F. George	450,100	Apr. 7	666	{ 168 169	55	130
Vehicle-brake. Automatic	A. L. Hagen and F. E. Dyer	460,011	Sept. 22	2310	579	56	1533
Vehicle-brake. Automatic	J. N. Schwalen	460,892	Oct. 6	555	140	57	109
Vehicle. Camping	A. J. McMaster	453,205	June 2	35	10	55	1156
Vehicle. Caterer's	J. F. Baldwin	464,058	Dec. 1	72	20	57	1151
Vehicle-cleaning device	J. H. Cook	447,446	Mar. 3	287	73	54	1171
Vehicle. Combined land and water	T. J. Olsen	464,227	Dec. 1	349	84	57	1199
Vehicle. Combination	H. W. Ford	460,373	Sept. 29	2679	719	56	1649
Vehicle. Convertible	G. H. and G. H. Hutton, Jr	449,365	Mar. 31	3416	859	54	1798
Vehicle-coupling	E. Nussle	455,761	July 14	755	199	56	154
Vehicle-door lock	P. Sohège	451,296	Apr. 28	2586	638	55	526
Vehicle. Electrically-propelled	M. W. Dewey	464,246	Dec. 1	378	91	57	1206

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Vehicle. Electrically-propelled.	M. W. Dewey	464,248	Dec. 1	384	92	57	1207
Vehicle. Four-wheeled.	D. M. Parry	458,989	Sept. 1	686	167	56	1200
Vehicle-gear	W. L. Pike	463,391	Nov. 17	1879	490	57	931
Vehicle-gearing	J. L. Dolson	446,437	Feb. 17	1546	379	54	831
Vehicle-bound	G. Erdle	454,930	June 30	2723	694	55	1694
Vehicle jump-seat	C. Comstock	449,095	Mar. 24	2946	747	54	1706
Vehicle. Jump-seat	C. H. Stratton	457,883	Aug. 18	1570	407	56	845
Vehicle lighting and heating attachment.	H. F. Thompson	465,586	Dec. 22	2536	646	57	1616
Vehicle-motor apparatus.	R. J. Sheehy	458,274	Aug. 25	2213	512	56	974
Vehicle-propelling mechanism.	H. F. Crawford and R. C. Lambert.	444,130	Jan. 6	252	61	54	52
Vehicle-propelling mechanism.	M. A. Libbey	447,616	Mar. 3	559	138 } 139 }	54	1223
Vehicle reach-coupling.	J. T. Livingston	450,295	Apr. 14	972	241	55	193
Vehicle-reach coupling.	G. E. Macy	458,058	Aug. 18	1851	482	56	898
Vehicle regulator. Electrically-propelled.	S. H. Short	445,654	Feb. 3	222	60	54	555
Vehicle runner. Wheeled.	T. Reece	452,083	May 12	1023	260	55	776
Vehicle running-gear	G. L. Banks	453,533	June 2	558	142	55	1253
Vehicle running-gear	S. E. Baughman	446,415	Feb. 17	1509	371 } 372 }	54	824
Vehicle running-gear	J. J. Black	451,021	Apr. 28	2146	530	55	440
Vehicle running-gear	J. J. Black	461,626	Oct. 20	1769	436	57	352
Vehicle running-gear	L. F. Case, Jr.	461,110	Oct. 13	864	222	57	173
Vehicle running-gear	G. W. Farrell	452,915	May 26	2372	601	55	1048
Vehicle running-gear	E. Funk	447,109	Feb. 24	2619	650	54	1048
Vehicle running-gear	C. E. Holley	452,376	May 19	1509	374	55	877
Vehicle running-gear	C. T. Holloway	452,569	May 19	1822	458	55	933
Vehicle running-gear	R. L. Kirby	461,940	Oct. 27	2285	566	57	1260
Vehicle running-gear	T. G. Mandt	459,157	Sept. 8	964	234	56	1260
Vehicle running-gear	J. W. Patterson	460,381	Sept. 29	2889	792	56	1651
Vehicle running-gear	E. O. Pease	449,427	Mar. 31	3525	887	51	1920
Vehicle running-gear	R. Reader and C. W. Weinland	444,103	Jan. 6	194	48	54	40
Vehicle running-gear	C. A. Vincent	451,144	Apr. 28	2325	576 } 577 }	55	476
Vehicle running-gear	A. Wareskjold and J. G. Burgess.	457,388	Aug. 11	781	201	56	685
Vehicle-seat.	G. E. Hatch	461,832	Oct. 27	2106	519	57	425
Vehicle-seat.	J. M. Johnson	446,754	Feb. 17	2028	505	54	926
Vehicle-seat.	T. J. Kerstetter	445,853	Feb. 3	565	138	54	692
Vehicle-seat.	G. W. Peters	458,777	Sept. 1	346	84	56	1132
Vehicle-seat. Adjustable	F. Sanford	461,525	Oct. 20	1608	393	57	323
Vehicle-seat attachment	B. F. Mason	462,265	Nov. 3	71	17	57	565
Vehicle-seat back	T. S. Brown	450,446	Apr. 14	1219	298	55	239
Vehicle-seat. Extension.	C. A. Timmons	455,933	July 14	1019	266	56	203
Vehicle-seat lock	D. G. Beers	452,472	May 19	1681	423	55	907
Vehicle-seat lock	O. D. Thompson	457,328	Aug. 4	647	169	56	653
Vehicle-seat. Shifting.	C. C. Adelsperger	466,211	Dec. 29	3535	904 } 905 }	57	1848
Vehicle-seat. Spring	W. T. Bunn and J. Faircloth	453,543	June 2	570	145	55	1256
Vehicle-seat. Spring	W. H. H. Wright	447,928	Mar. 10	1080	270	54	1329
Vehicle-seats. Jointed iron for.	G. H. and G. H. Hutten, Jr.	449,419	Mar. 31	3509	883 } 884 }	54	1818
Vehicle. Short-turning	C. Comstock	457,508	Aug. 11	969	247	56	720
Vehicle. Side-bar	P. S. Tartt	462,070	Oct. 27	2466	612	57	495
Vehicle. Side-spring	E. H. Carpenter	452,990	May 26	2503	634	55	1074
Vehicle. Spring.	L. Miller	458,791	Sept. 1	364	88	56	1135
Vehicle. Spring.	T. O'Connor	461,767	Oct. 20	1991	492	57	395
Vehicle. Spring.	H. W. Pell	449,695	Apr. 7	74	18	55	17
Vehicle-spring	W. Atkinson	455,603	July 7	501	130	56	90
Vehicle-spring	C. A. Behlen	453,924	June 9	1134	296	55	1372
Vehicle-spring	G. E. Combs	454,714	June 23	2335	600	55	1615
Vehicle-spring	E. Cook	445,974	Feb. 10	750	184	54	669
Vehicle-spring	E. Cook	465,992	Dec. 29	3202	816	57	1783
Vehicle-spring	A. Gummer	461,016	Oct. 13	737	190	57	150
Vehicle-spring	J. H. Gunn	462,873	Nov. 10	1041	269	57	761
Vehicle-spring	W. L. Hawes	464,967	Dec. 15	1485	373	57	1439
Vehicle-spring	J. Hessong	459,005	Sept. 8	710	174	56	1212
Vehicle-spring	E. Jarrell	455,335	July 7	47	14	56	12
Vehicle-spring	D. Lippy	452,756	May 19	2125	534	55	993
Vehicle-spring	D. Lippy	457,737	Aug. 11	1327	344	56	792
Vehicle-spring	N. A. Newton	462,323	Nov. 3	167	42	57	582
Vehicle-spring	D. M. and T. H. Parry	447,005	Feb. 24	2443	607	54	1014
Vehicle-spring	H. R. Raudenbush	463,648	Nov. 24	2293	602	57	1019
Vehicle-spring	G. E. Raymond	448,543	Mar. 17	2071	519	54	1531
Vehicle-spring	G. E. Raymond	452,531	May 19	1767	444	55	923
Vehicle-spring	W. D. Rumsey	462,330	Nov. 3	176	45	57	584
Vehicle-spring	W. T. Sample	450,704	Apr. 21	1644	395	55	336
Vehicle-spring	W. T. Sample	458,597	Sept. 1	76	17	56	1081
Vehicle-spring	H. Timken	449,717	Apr. 7	112	29	55	24
Vehicle spring-connection	G. Norwood and J. J. Rose	444,526	Jan. 13	858	223	54	179
Vehicle spring-gear	G. E. Bartholomew	446,656	Feb. 17	1874	465	54	896
Vehicle-spring gear	F. Coleman	450,363	Apr. 14	1082	267	55	214
Vehicle-spring gear	P. L. Ramsey	454,768	June 23	2411	619	55	1630
Vehicle spring-hanger	H. W. Pell	459,792	Sept. 22	1977	498	56	1469
Vehicle. Spring-propelled.	F. Briggs	452,562	May 19	1812	455 } 456 }	55	932
Vehicle-spring support.	J. S. Cochenour and N. T. Remy	446,203	Feb. 10	1143	280	54	738
Vehicle-spring support.	T. B. Mayell	463,293	Nov. 17	1704	445	57	898
Vehicle-starter.	S. L. Huizer	451,762	May 5	494	122	55	672
Vehicle-starter.	P. D. Van Vradenburg	463,959	Nov. 24	2771	718 } 719 }	57	1110
Vehicle steering-gear	E. Howland	453,369	June 2	292	77	55	1202
Vehicle-steep	M. Frost	455,194	June 30	3192	809	55	1785
Vehicle-step	G. H. Schweiger	452,198	May 12	1221	308	55	812
Vehicle-top	W. O. Langdon	460,308	Sept. 29	2776	692	56	1630
Vehicle-top	C. F. Zoller and L. S. Burrows	447,097	Feb. 24	2599	645	54	1044

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Vehicle. Three-wheeled	C. H. Coffin	452,425	May 19	1591	395	55	893
Vehicle. Two-wheeled	J. F. Barrows	458,514	Aug. 25	2598	633	56	1047
Vehicle. Two-wheeled	G. E. Bartholomew	457,397	Aug. 4	588	155	56	647
Vehicle. Two-wheeled	G. M. Cox	451,029	Apr. 28	2157	532	55	442
Vehicle. Two-wheeled	H. L. Ferris	457,912	Aug. 18	1618	422	56	853
Vehicle. Two-wheeled	C. C. Frick and N. P. Wood	448,015	Mar. 10	1231	313	54	1358
Vehicle. Two-wheeled	C. C. Hayes	462,254	Nov. 3	51	13	57	562
Vehicle. Two-wheeled	J. W. Hewitt	445,556	Feb. 3	45	12	54	520
Vehicle. Two-wheeled	D. N. Kratzer	450,414	Apr. 14	1173	286	55	231
Vehicle. Two-wheeled	H. H. Lockwood	450,166	Apr. 14	764	194	55	155
Vehicle. Two-wheeled	T. McIntosh	459,967	Sept. 22	2248	565	56	1521
Vehicle. Two-wheeled	J. W. and J. C. Moon	457,287	Aug. 4	568	151	56	639
Vehicle. Two-wheeled	V. Parks	455,764	July 14	759	200	56	155
Vehicle. Two-wheeled	J. Stahl	447,499	Mar. 3	390	95	54	1191
Vehicle. Two-wheeled	W. B. Stover	450,643	Apr. 21	1552	373	55	320
Vehicle-wheel	B. Barler	463,133	Nov. 17	1455	377	57	851
Vehicle-wheel	C. E. Bell	463,241	Nov. 17	1623	423	57	823
Vehicle-wheel	J. N. Clouse	449,205	Mar. 31	3125	788	54	1748
Vehicle-wheel	P. Dennau, Sr	450,144	Apr. 14	733	184	55	149
Vehicle-wheel	J. Driver	458,999	Sept. 8	703	173	56	1210
Vehicle-wheel	J. H. Gross	451,858	May 5	624	155	55	697
Vehicle-wheel	N. N. Horton	465,135	Dec. 15	1803	456	57	1496
Vehicle-wheel	H. G. M. Howard	465,476	Dec. 22	2344	600	57	1610
Vehicle-wheel	R. E. Jeffery	446,559	Feb. 17	1733	425 426	54	869
Vehicle-wheel	J. B. Lott	460,681	Oct. 6	237	59	57	48
Vehicle-wheel	A. C. Mather	452,046	May 12	952	243	55	765
Vehicle-wheel	A. H. Overman	446,692	Feb. 17	1930	481	54	906
Vehicle-wheel	H. Rohrer	460,183	Sept. 29	2581	643	56	1593
Vehicle-wheel	J. Severin	453,215	June 2	52	14	55	1158
Vehicle-wheel	E. Tannevitz	444,410	Jan. 6	673	175	54	133
Vehicle-wheel	J. B. West	463,181	Nov. 17	1533	400	57	865
Vehicle-wheel	C. E. W. Woodward	464,767	Dec. 8	1180	293	57	1368
Vehicle-wheel	E. Woolson	446,910	Feb. 24	2304	573	54	988
Vehicle wheel and axle	O. Sternoff-Beyer	455,549	July 7	403	106	56	78
Vehicle-wheel fender	J. M. Reynolds	459,651	Sept. 15	1764	444	56	1422
Vehicle-wheel guard	H. F. Ganon	458,159	Aug. 25	2003	519	56	935
Vehicle-wrench	C. A. Carman	453,576	June 2	621	158	55	1264
Vehicle-wrench	J. A. Miller	445,451	Jan. 27	2334	606	54	481
Vehicles. Canopy-top for	G. E. Wood	459,662	Sept. 22	2092	525	56	1493
Vehicles. Combined step and fender for	A. McCulloch	449,084	Mar. 24	2932	742	54	1703
Vehicles. Electrical propulsion of	E. H. Johnson	450,742	Apr. 21	1686	409	55	345
Vehicles. Front gear for	W. N. Morroll and C. A. Eddy	466,252	Dec. 29	3602	922	57	1861
Vehicles. Glass front for	J. E. Schorrah	453,432	June 2	411	107	55	1224
Vehicles. Horse-detacher for	C. J. Walser	448,897	Mar. 24	2653	666	54	1648
Vehicles. Metallic end for	E. K. Bumpass	449,664	Apr. 7	30	6	55	8
Vehicles. Power-gearing for	E. A. Sperry (Reissue)	11,177	July 7	711	187	56	137
Vehicles. Spring-back for	J. W. Daniel	462,655	Nov. 3	677	171	57	682
Vehicles. Steam steering-gear for	E. Howland	453,368	June 2	291	77	55	1202
Vehicles. System of electrical propulsion for	W. S. Richards	458,377	Aug. 25	2378	581	56	1004
Vehicles. Thill-support for	J. J. Barker	449,027	Mar. 24	2845	723	54	1686
Veil-holder	L. A. H. Grenelle	464,864	Dec. 8	1315	329	57	1396
Velocipede	F. Archer and A. S. Bowley	447,099	Feb. 24	2603	646	54	1045
Velocipede	H. G. Barr and F. E. Peck	457,242	Aug. 4	488	129 130	56	625
Velocipede	W. Blakely	450,907	Apr. 21	1957	480	55	395
Velocipede	L. Bondreau	463,825	Nov. 24	2549	664	57	1068
Velocipede	J. Breitenmoser	452,336	May 12	1450	358	55	855
Velocipede	H. Briggs	443,204	Mar. 17	1324	390	54	1427
Velocipede	T. R. and T. D. Connor	452,541	May 19	1781	448	55	925
Velocipede	L. M. Cottle	463,329	Nov. 17	1764	462	57	908
Velocipede	H. F. Crawford and R. C. Lambert	444,131	Jan. 6	254	61	54	52
Velocipede	T. O. Decker	463,302	Nov. 17	1719	449	57	901
Velocipede	C. A. Dies	450,997	Apr. 21	2104	519	55	423
Velocipede	J. Edelstein	449,111	Mar. 31	2980	752 753	54	1721
Velocipede	W. J. Edwards	466,134	Dec. 29	3427	878	57	1828
Velocipede	G. A. Egg	444,341	Jan. 6	561	144	54	112
Velocipede	J. Eisenhart	462,115	Oct. 27	2546	632 633	57	509
Velocipede	S. Elliott	446,672	Feb. 17	1897	471	54	900
Velocipede	C. L. Fortier	451,035	Apr. 28	2162	534	55	443
Velocipede	F. C. Foster	448,952	Mar. 24	2731	689	54	1664
Velocipede	A. L. Garford	457,435	Aug. 11	846	219	56	698
Velocipede	J. M. Golderer	455,438	July 7	223	57	56	46
Velocipede	H. C. Goodrich	455,395	July 7	156	40	56	33
Velocipede	C. F. Hadley	464,300	Dec. 1	474	113	57	1224
Velocipede	A. P. Hanson	456,989	Aug. 4	98	24	56	552
Velocipede	E. H. Hatcher	458,106	Aug. 18	1920	499	56	913
Velocipede	J. A. Holmes	447,542	Mar. 3	454	112	54	1203
Velocipede	W. E. Hurrell	448,580	Mar. 17	2129	534	54	1542
Velocipede	T. W. Jamison	447,246	Feb. 24	2880	715	54	1097
Velocipede	T. B. Jeffery	448,655	Mar. 24	2271	569	54	1575
Velocipede	T. B. Jeffery	449,220	Mar. 31	3145	793	54	1751
Velocipede	T. B. Jeffery	460,641	Oct. 6	173	44	57	36
Velocipede	C. Jolly	465,859	Dec. 29	2954	755	57	1737
Velocipede	J. D. Keating	465,934	Dec. 29	3079	790	57	1761
Velocipede	E. G. Latta	444,637	Jan. 13	1021	266	54	210
Velocipede	E. G. Latta	447,434	Mar. 3	266	67	54	1168
Velocipede	E. G. Latta	448,442	Mar. 17	1928	485 486	54	1503
Velocipede	E. G. Latta	461,191	Oct. 13	989	253 254	57	197
Velocipede	C. S. Leddell	459,586	Sept. 15	1645	412 413	56	1400

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Velocipede	G. D. Leechman	447,835	Mar. 10	921	231	54	1299
Velocipede	A. H. Lessells	455,220	June 30	3230	{ 820 821	55	1792
Velocipede	W. J. Lloyd and W. Priest	450,888	Apr. 21	1931	{ 473 474	55	390
Velocipede	F. Malfait	456,625	July 28	2120	560	56	429
Velocipede	J. McCammon	465,140	Dec. 15	1810	{ 458 459	57	1498
Velocipede	C. E. McGlinchey	445,125	Jan. 20	1839	476	54	374
Velocipede	C. E. McGlinchey	465,599	Dec. 22	2559	652	57	1650
Velocipede	G. L. Morris and W. T. Wilson	460,242	Sept. 29	2666	664	56	1609
Velocipede	S. E. Mosher	456,631	July 28	2126	562	56	431
Velocipede	S. E. Mosher	456,632	July 28	2127	563	56	431
Velocipede	F. Newhouse	456,590	July 28	2054	543	56	417
Velocipede	L. W. Noyes	459,016	Sept. 8	734	{ 178 179	56	1216
Velocipede	C. Phillips	457,290	Aug. 4	574	152	56	639
Velocipede	W. Phillips	445,574	Feb. 3	86	20	54	528
Velocipede	J. O. Rathbun	449,383	Mar. 31	3443	866	54	1804
Velocipede	M. Redlinger	452,082	May 12	1027	{ 259 260	55	776
Velocipede	L. W. Rhoades	455,058	June 30	2956	752	55	1739
Velocipede	W. E. Roberts	461,588	Oct. 20	1703	{ 416 417	57	341
Velocipede	J. T. Robinson	462,018	Oct. 27	2392	{ 592 593	57	480
Velocipede	C. A. Rouveyre	444,620	Jan. 13	999	260	54	206
Velocipede	A. W. Schieding	449,498	Mar. 31	3632	914	54	1842
Velocipede	J. Schindler	447,478	Mar. 3	356	88	54	1185
Velocipede	R. Schwéers	454,070	June 16	1340	350	55	1420
Velocipede	H. Semple	447,741	Mar. 3	746	187	54	1259
Velocipede	G. Singer	444,141	Jan. 6	269	64	54	55
Velocipede	E. M. Stroud	451,080	Apr. 28	2220	549	55	455
Velocipede	E. Worms and A. S. Zwierzchowski	451,588	May 5	219	52	55	621
Velocipede	F. W. Zimer	445,618	Feb. 3	156	41	54	541
Velocipede-brake	J. M. Boyd	452,593	May 19	1860	468	55	941
Velocipede-brake-holder	J. Krieger and A. Dallmer	445,118	Jan. 20	1829	474	54	372
Velocipede-driving-gear	J. H. Baker	462,191	Oct. 27	2660	{ 666 667	57	531
Velocipede-gearing	A. Pursell	465,998	Dec. 29	3211	818	57	1784
Velocipede-handle	E. G. Latta	452,577	May 19	1835	{ 460 461	55	936
Velocipede-handle	H. Waterson	445,914	Feb. 3	659	150	54	640
Velocipede-ice	L. Terski	455,932	July 14	1618	266	56	203
Velocipede-pedal	G. W. Cushman	447,145	Feb. 24	2708	671	54	1062
Velocipede-pedal attachment	W. Wheeler	458,608	Sept. 1	93	21	56	1084
Velocipede, Railway	F. Brady	447,935	Mar. 10	1092	274	54	1332
Velocipede, Railway	F. Brady	462,908	Nov. 10	1098	{ 285 286	57	773
Velocipede-saddle	F. H. Bolte	457,834	Aug. 18	1490	386	56	828
Velocipede-saddle	F. H. Bolte	457,964	Aug. 18	1707	447	56	871
Velocipede-saddle	F. Brooks	456,792	July 28	2397	631	56	481
Velocipede-saddle	E. R. De Wolfe	455,014	June 30	2876	731	55	1724
Velocipede-saddle	W. J. Edwards	448,739	Mar. 24	2412	603	54	1603
Velocipede-saddle	T. B. Jeffery	454,172	June 16	1438	390	55	1447
Velocipede-saddle	E. G. Latta	455,882	July 14	947	248	56	190
Velocipede-saddle	E. G. Latta	464,653	Dec. 8	993	248	57	1335
Velocipede-saddle	J. A. Little	446,387	Feb. 10	1450	356	54	801
Velocipede-saddle	C. E. McGlinchey	455,474	July 7	275	70	56	256
Velocipede-saddle	C. E. McGlinchey	460,279	Sept. 29	2736	680	56	1632
Velocipede-saddle	G. Meader	457,654	Aug. 11	1178	302	56	762
Velocipede-saddle	E. J. Willis	458,609	Sept. 1	95	21	56	1084
Velocipede, Safety	V. Karmin	465,861	Dec. 29	2956	755	57	1737
Velocipede-seat	W. Lindner	464,508	Dec. 8	773	190	57	1292
Velocipede-seat	W. J. Lloyd and W. Priest	448,969	Mar. 24	2756	696	54	1669
Velocipede-wheel	C. E. Duryea	459,699	Sept. 15	1833	461	56	1436
Velocipede-wheel	J. W. Hall	447,822	Mar. 10	906	224	54	1295
Velocipede-wheel	T. Weir	460,243	Sept. 29	2668	665	56	1609
Velocipedes. Detachable seat for	S. H. Beck	464,448	Dec. 1	675	165	57	1263
Velocipedes. Driving mechanism for	W. A. Evans and T. Cowan	459,682	Sept. 15	1807	454	56	1430
Velocipedes. Luggage-carrier for	C. H. Lamson	444,089	Jan. 6	171	43	54	37
Velocipedes. Manufacturing pedal-cranks for	F. Southard	445,303	Jan. 27	2116	548	54	437
Velocipedes. Package-carrier for	C. H. Lamson	450,673	Apr. 21	1600	384	55	329
Velocipedes. Package-carrier for	C. H. Lamson	452,977	May 26	2482	628	55	1070
Velocipedes. Steering device for	R. W. Riess	448,850	Mar. 24	2580	648	54	1635
Velveteen binding. Making	M. M. Beeman	455,381	July 7	136	35	56	30
Vending apparatus	T. Bergmann	447,862	Mar. 10	968	243	54	1398
Vending apparatus	W. Cahoon, Jr.	454,425	June 16	1873	490	55	1521
Vending apparatus	E. G. Fisher	451,472	May 5	43	11	55	587
Vending apparatus	J. D. Gray	462,253	Nov. 3	49	12, 13	57	561
Vending apparatus	C. P. Herold	461,610	Oct. 20	1732	{ 424 425	57	346
Vending apparatus	C. Hess	465,373	Dec. 15	2189	561	57	1569
Vending apparatus	O. T. Smith	465,216	Dec. 15	1920	488	57	1519
Vending apparatus	S. B. Whiteside	465,908	Dec. 29	3041	779	57	1754
Vending apparatus	F. J. Wood	462,024	Oct. 27	2403	{ 596 597	57	483
Vending apparatus. Automatic	W. B. Seward	453,392	June 2	323	{ 84, 85	55	1209
Vending apparatus. Coin-actuated	M. B. Mills	456,336	Apr. 14	1049	257	55	208
Vending apparatus. Liquid	H. Schloesing and B. Dégremont	462,778	Nov. 10	881	{ 231 232	57	729
Vending-cabinet. Street	E. Miller	462,320	Nov. 3	162	41	57	581
Vending device. Coin-operated	H. D. Mugerditchyan	455,948	July 14	1047	274	56	08
Vending device. Coin-operated liquid	D. H. Bacon and C. C. Hill	452,092	May 12	1041	{ 263 264	55	778

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Vending-machine	F. G. Dieterich	452,635	May 19	1927	{ 484 485	55	954
Vending-machine	D. E. Durie and A. Begg	458,680	Sept. 1	209	49	56	1105
Vending-machine	D. E. Durie and A. Begg	458,681	Sept. 1	211	49	56	1106
Vending-machine	H. D. Hinckley	455,508	July 7	326	84	56	65
Vending-machine	J. A. Hunt	463,054	Nov. 10	1315	{ 340 341	57	815
Vending-machine	F. H. Richards	455,496	July 7	307	78, 79	56	62
Vending-machine	A. W. Roovers	419,749	Apr. 7	162	40	55	33
Vending-machine	F. W. Silkman	454,407	June 16	1845	482	55	1515
Vending-machine	O. A. Wheeler	447,037	Feb. 24	2510	{ 623 624	54	1026
Vending-machine	O. A. Wheeler	466,313	Dec. 29	3702	{ 944 945	57	1880
Vending-machine	C. L. Wickham	446,047	Feb. 10	878	{ 214 215	54	691
Vending-machine. Coin-controlled	F. J. Wood	447,267	Feb. 24	2919	725	54	1105
Vending-machine. Coin-operated	A. Bräu	457,700	Aug. 11	1253	{ 323 324	56	776
Vending-machine. Fluid-	W. R. Pope	450,843	Apr. 21	1860	453	55	376
Vending-machine. Newspaper-	G. E. Starr and W. Hollingsworth	454,301	June 16	1175	439	55	1485
Vending-machines. Coin-chute for	C. H. Thompson	446,303	Feb. 10	1330	324	54	775
Veneer box or basket	J. M. King	460,285	Sept. 29	2741	683	56	1023
Veneer-cutting. Band-saw	C. W. and A. S. Gage	452,219	May 12	1252	{ 316 317	55	819
Veneer-cutting machine	E. Densmore	446,585	Feb. 17	1767	436	54	876
Veneer-cutting machines. Pressure-plate for	W. Schwegman	458,717	Sept. 1	260	62	56	1115
Veneer-dish machine	J. T. Ferrer	456,483	July 21	1878	{ 496 497	56	375
Veneer-drying apparatus	F. Kukuck	457,281	Aug. 4	560	148	56	637
Veneer-drying apparatus	J. Y. Petteys	463,917	Nov. 24	2713	705	57	1098
Veneer ornamental work. Open	F. Koskul	461,264	Oct. 13	1115	285	57	222
Veneers. Cutting	J. W. Chapman	463,888	Nov. 24	2661	693	57	1088
Veneered lumber	W. E. Brock	444,042	Jan. 6	96	25	54	22
Veneering lumber. Mold for	W. E. Brock	445,605	Feb. 3	137	35, 36	54	538
Venetian red. Manufacture of	W. J. Wigg	464,917	Dec. 8	1388	350	57	1409
Vent. Automatic	M. Anthony	460,671	Oct. 6	218	56	57	45
Vent	J. W. Wadsworth	465,898	Dec. 29	3027	774	57	1751
Vent for casks. Automatic	L. Stuhl	464,703	Dec. 8	1080	267	57	1349
Ventilating apparatus	G. H. Burrows	445,878	Feb. 3	599	{ 147 148	54	629
Ventilating apparatus	T. S. Purdie	455,006	June 30	2868	729	55	1722
Ventilating apparatus	W. T. Sugg	464,204	Dec. 1	312	75	57	1192
Ventilating apparatus and chimney-top	C. F. Elliott	465,756	Dec. 22	2790	{ 713 714 715	57	1696
Ventilating buildings. Apparatus for	C. A. Kimpton	444,444	Jan. 13	722	189	54	151
Ventilating device. Vehicle	R. C. Nichols	452,383	May 19	1521	378	55	879
Ventilating railway and other carriages. Apparatus for	J. Anderson	454,392	June 16	1815	474	55	1509
Ventilating system for buildings	J. C. Bennett	453,827	June 9	1011	{ 263 264	55	1348
Ventilation of rooms	J. L. Bishop	465,708	Dec. 22	2716	693	57	1681
Ventilator:							
See Aerial ventilator.	Fire-proof ventilator.						
Automatic ventilator.	Mattress-ventilator.						
Can-ventilator.	Pie-ventilator.						
Fire-chamber venti-	Ship's ventilator.						
lator.	Window-ventilator.						
Ventilator	P. Abramamson	454,195	June 16	1521	399	55	1454
Ventilator	T. Bury	462,652	Nov. 3	673	170	57	681
Ventilator	G. W. Howe	453,638	June 9	727	189	55	1294
Ventilator	I. A. Lovejoy	458,179	Aug. 25	2033	527	56	941
Ventilator	M. G. Tousley	446,824	Feb. 17	2133	530	54	949
Ventilator	T. Utley	462,604	Nov. 3	602	148	57	667
Ventilator	W. Wright	453,057	May 26	2609	{ 659 660	55	1095
Ventilator and combined ventilator and refrigerator car.	E. T. Earl	465,615	Dec. 22	2583	656	57	1654
Ventilator and dust-arrester	A. Olsen	458,538	Aug. 25	2629	640	56	1053
Ventilator-cap	J. Dellinger	445,522	Jan. 27	2438	635	54	500
Ventilator or blower	E. G. Lafite	462,142	Oct. 27	2587	644	57	517
Vermifuge	J. McCrossie	453,063	May 26	2619		55	1097
Vertical boiler	C. F. Baker	459,776	Sept. 22	1953	{ 492 493	56	1465
Vertically-adjustable gate	J. B. Taylor	461,121	Oct. 13	876	226	57	176
Vessel dumping device	S. Geyer	461,606	Oct. 20	1726	423	57	345
Vessel-car	J. Naber, Jr.	453,788	June 9	966	251	55	1339
Vessel-fender	J. T. C. Koch	461,759	Oct. 20	1977	489	57	392
Vessel. Fire-proof	J. B. Brolaski	451,802	May 5	545	135	55	682
Vessel for submarine or surface navigation	V. B. de Souza	453,560	June 2	594	151	55	1260
Vessel loading and unloading apparatus	A. McDougall	453,155	May 26	2772	{ 697 698	55	1126
Vessel-saving apparatus	H. G. Cady	465,342	Dec. 15	2137	547	57	1559
Vessel. Screw-propelled	C. G. Lundborg	452,108	May 12	1070	{ 271 272	55	784
Vessels, &c. Apparatus for applying sheathing to the hulls of	F. Ewing, Jr	445,502	Jan. 27	2409	628	54	495
Vessels. Apparatus for maintaining a constant plane in floating	B. Tower	464,806	Dec. 8	1239	{ 309 310	57	1380
Vessels. Apparatus for raising sunken	J. G. Enke	458,565	Sept. 1	26	5	56	1070
Vessels. Coating for the protection of bottoms of	R. A. Chesebrough	447,941	Mar. 10	1008		54	1331
Vessels. Construction of	S. T. Richardson	456,849	July 23	2499	656	56	499
Vessels. Device for supplying water to	N. T. Whiting	456,320	July 21	1611	426	56	324

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Vessels. Ear for	J. B. Schneider	465,804	Dec. 22	2857	731	57	1709
Vessels. Elastic fender for	G. O. Stein	445,910	Feb. 3	644	158	54	638
Vessels. Frame-work for	A. McDougall	456,586	July 28	2049	541 542	56	415
Vessels. Iron-clad or other	J. F. Hedgetts	445,345	Jan. 27	2181	565	51	452
Vessels. Propulsion of	J. T. Fisher	464,621	Dec. 8	941	232	57	1325
Vessels. Propulsion of	G. Rooke	464,829	Dec. 8	1267	317	57	1386
Vessels. Shelter for watchmen on	H. L. Meadows	447,193	Feb. 24	2788	690	54	1078
Vessels. Water-tight compartment for	J. B. Brolaski	451,803	May 5	546	135	55	682
Vest and shirt pattern	J. T. Brodnax	455,159	June 30	3130	795	55	1773
Veterinary file	F. K. Hesse	454,436	June 16	1891	493	55	1524
Veterinary incisor-cutter	H. Haussmann	454,473	June 23	1945	507	55	1543
Veterinary inhaler	H. T. Welch	451,655	May 5	324	79	55	640
Veterinary instrument	S. C. Meddick	462,385	Nov. 3	271	66	57	602
Veterinary instrument	J. Ruby	453,508	June 2	523	134	55	1246
Veterinary mouth-opener	W. P. Edwards	457,911	Aug. 18	1617	422	56	853
Veterinary remedy	G. G. and S. B. Gayman	459,178	Sept. 8	1000	56	56	1266
Veterinary surgical instrument	J. W. Mullen	450,086	Apr. 7	646	163	55	126
Vignettes. Machine for printing and stamping	H. Schwarz	456,857	July 28	2512	654 659	56	501
Vinegar. Making	G. Sobotka	458,985	Sept. 1	682	166	56	1198
Violin	H. Heyder	446,450	Feb. 17	1566	385	54	835
Violin	G. Hudson and P. W. Pickup	464,157	Dec. 1	226	54	57	1178
Violin	A. Springer	451,863	May 5	630	156	55	698
Violin attachment	E. Grill	418,229	Mar. 17	1563	399	54	1434
Violin-cases. Bow-holder for	H. Kleineick	463,316	Nov. 17	1745	456	57	906
Violin chin-rest	A. Heck	460,133	Sept. 29	2514	626	56	1579
Violin-rest	C. F. Albert	451,744	May 5	465	114	55	666
Violin tail-piece	D. S. Jenkins	462,383	Nov. 3	266	65	57	601
Violin tail-piece and chin-rest	C. G. D. Watkins	440,270	Apr. 14	935	232	55	186
Violin tuning-peg	R. C. Bookser	444,972	Jan. 20	1612	412	54	330
Violins. Tuning-peg for	J. Bohmann	464,912	Dec. 8	1384	349	57	1408
Viscous substances. Process of and machine for spreading	J. H. Day	452,466	May 19	1672	419	55	905
Vise	J. B. Baker	453,459	June 2	452	116	55	1233
Vise	J. O. Barrett	444,326	Jan. 6	539	140	54	108
Vise	W. A. Bernard	454,542	June 23	2055	532	55	1563
Vise	R. W. Kenyon	457,353	Aug. 11	724	185	56	673
Vise	H. E. Long	457,419	Aug. 11	826	213	56	694
Vise	W. Lorey	457,997	Aug. 18	1759	462	56	880
Vise	G. W. McKenzie	447,580	Mar. 3	506	124	54	1212
Vise	D. C. and J. Sabourin	464,523	Dec. 8	802	196	57	1297
Vise	D. F. Tallman	454,779	June 23	2427	623	55	1633
Vise	C. Wies	449,987	Apr. 7	507	127	55	98
Vise	C. Wies	454,693	June 23	2304	591	55	1609
Vise	C. Wies	460,613	Oct. 6	104	28	57	23
Vise. Bench	J. F. Emmert	457,710	Aug. 11	1269	328	56	779
Vise. Blacksmith's	A. K. Hathaway	446,348	Feb. 10	1394	340	54	789
Vise-clamp	F. Krebs	445,506	Jan. 27	2413	630	54	496
Vise. Double-gear self-adjusting	J. M. Hesser	456,568	July 28	2018	533	56	409
Vise. Hand	G. W. Miller	448,452	Mar. 17	1942	489	54	1506
Vise. Iron	J. O. Barrett	453,793	June 9	972	252	55	1340
Vise-jaw cap	C. D. Bingham	455,651	July 7	573	148	56	111
Vise. Lineman's	J. McIsaac	464,034	Dec. 1	42	12	57	1144
Vise or clamp	C. H. Gatchell	452,639	May 19	1937	446	55	957
Vise. Pipe	R. R. Rouse	446,078	Feb. 10	927	226	54	700
Vise. Pipe	G. S. Searle	455,414	July 7	191	49	56	40
Vise. Pipe	W. Vanderman	455,136	June 30	3088	786	55	1765
Vise. Pipe	W. Vanderman	455,369	July 7	108	30, 31	56	25
Vision. Device for assisting	D. W. Grob	459,563	Sept. 15	1610	404	56	1393
Visual indicator. Electric	F. W. Cole	445,796	Feb. 3	469	115 116	54	603
Voltaic insole	M. E. Thomas	444,735	Jan. 13	1190	308	54	241
Voting-booth	C. S. Babcock and D. A. Gourlay	447,239	Feb. 24	2871	712 713	54	1095
Voting-booth	H. P. O'Connell	460,344	Sept. 29	2835	705	56	1642
Voting-machine	L. S. Gardner	458,805	Sept. 1	383	92	56	1139
Vulcanizer	J. Fergus	462,120	Oct. 27	2556	635	57	511
Vulcanizer	J. Fergus	449,470	Mar. 31	3596	906	54	1834
Vulcanizing and drying wood	C. Howard	463,975	Dec. 29	3149	807	57	1774
Vulcanizing apparatus	R. W. Barney	446,216	Feb. 10	1167	286	54	742
Vulcanizing apparatus	W. E. Hathaway	459,632	Sept. 15	1735	435	56	1416
Vulcanizing apparatus	A. H. Stoddard	447,480	Mar. 3	357	89	54	1185
Vulcanizing wood. Apparatus for	J. P. Witherow and G. Curtis	446,500	Feb. 17	1642	402	54	851
Vulcanizing wood. Process of and apparatus for	J. P. Witherow	446,501	Feb. 17	1646	402	54	851
Wagon	C. Abresch	452,591	May 19	1856	467	55	940
Wagon	P. and J. W. Brown	445,829	Feb. 3	529	128	54	615
Wagon	P. and J. W. Brown	445,877	Feb. 3	598	147	54	629
Wagon	J. A. Gendron	455,941	July 14	1031	270	56	205
Wagon	W. C. Murphy	446,562	Feb. 17	1737	427	54	869
Wagon	H. J. Richter	461,085	Oct. 13	834	215	57	167
Wagon	J. Wigand	462,288	Nov. 3	108	27	57	572
Wagon. Advertisement	W. W. McCall	460,537	Sept. 29	3138	784 785	56	1700
Wagon-bed	B. F. King	464,570	Dec. 8	864	212	57	1309
Wagon-bed elevator	W. S. Harris	453,340	June 2	253	67	55	1196
Wagon-bed lifter and wire-stretcher. Combined	H. Wilson	445,437	Jan. 27	2312	600	54	478
Wagon-beds. Rub-iron for	G. A. Nelson	449,425	Mar. 31	3532	887	54	1820
Wagon-body	J. Hessong	455,044	June 30	2929	745	55	1734
Wagon-box fastener	M. E. Hunt	455,965	July 14	1072	280	56	212
Wagon-brake	W. H. Arnold	464,057	Dec. 1	71	19	57	1150
Wagon-brake	O. T. Baker	446,565	Feb. 17	1742	428 429	54	870
Wagon-brake	F. W. Dohbel	457,544	Aug. 11	1020	261	56	731

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr.	Vol.	Page.
Wagon-brake	J. T. and W. D. Gabbert	447,448	Mar. 3	290	73	54	1172
Wagon-brake	J. B. Garrett	458,280	Aug. 25	2222	545	56	975
Wagon-brake	J. W. Herrin	453,904	June 9	1106	289	55	1366
Wagon-brake	S. T. Lamb	455,106	June 30	3037	772	55	1755
Wagon-brake	J. A. Martin	458,633	Sept. 1	131	29	56	1091
Wagon-brake	A. W. Miller	457,001	Aug. 4	110	27	56	554
Wagon-brake	J. L. and A. L. Patton	444,369	Jan. 6	606	156	54	120
Wagon-brake	R. Raby	444,318	Jan. 6	530	138	54	106
Wagon-brake	M. Shive	457,548	Aug. 11	1027	264	56	732
Wagon-brake	N. E. Thompson	454,389	June 16	1811	472	55	1508
Wagon-brake	H. M. Welty	464,404	Dec. 1	617	152	57	1251
Wagon-brake	W. R. Wilcox	462,754	Nov. 10	839	220	57	722
Wagon-brake, Automatic	C. A. Brost	454,608	June 23	2177	562	55	1584
Wagon-brake, Automatic	F. P. Wilber	462,461	Nov. 3	387	95	57	624
Wagon. Buckboard	G. T. Chapman	452,338	May 12	1454	360	55	856
Wagon. Coal	E. L. Layton	463,251	Nov. 17	1640	427	57	886
Wagon. Coal	H. P. Wayman	465,903	Dec. 29	3032	776	52	1752
Wagon. Delivery	H. S. Tuthill	447,440	Mar. 3	278	70	54	1170
Wagon dump and elevator	J. S. Kidd	447,190	Feb. 24	2783	689	54	1077
Wagon dump and elevator	J. S. Kidd	447,191	Feb. 24	2786	689	54	1078
Wagon dump and elevator	J. S. Kidd	449,680	Apr. 7	49	12	55	11
Wagon. Dumping	J. Blum	450,822	Apr. 21	1829	444	55	371
Wagon. Dumping	L. S. Browning	462,090	Oct. 27	2495	620	57	500
Wagon. Dumping	J. T. Dougine	445,981	Feb. 10	757	185	54	671
Wagon. Dumping	J. W. Dunham and G. W. and F. P. Kisinger	449,212	Mar. 31	3134	790	54	1749
Wagon. Dumping	J. A. Head	447,774	Mar. 10	815	202	54	1279
Wagon. Dumping	J. A. Head	455,399	July 7	161	41	56	35
Wagon. Dumping	T. Hill	460,869	Oct. 6	511	130	57	101
Wagon. Dumping	T. Hill	460,871	Oct. 6	513	131	57	101
Wagon. Dumping	J. M. Kimball	451,225	May 5	579	143	55	689
Wagon. Dumping	R. F. King	457,853	Aug. 18	1516	395	56	835
Wagon. Dumping	J. A. Klees	449,265	Mar. 31	3215	811	54	1765
Wagon. Dumping	J. A. Klees	454,004	June 9	1246	324	55	1394
Wagon. Dumping	G. S. Kyle	453,491	June 2	496	128	55	1241
Wagon. Dumping	R. A. Lucas and J. T. Murray	458,910	Sept. 1	567	138	56	1173
Wagon. Dumping	C. Pay	463,254	Nov. 17	1646	428	57	887
Wagon. Dumping	P. Seibert	458,919	Sept. 1	578	141	56	1176
Wagon. Dumping	J. M. Stoner	456,319	July 21	1608	425	56	324
Wagon. Dumping	U. S. G. and L. D. Warner	456,868	July 28	2526	664	56	504
Wagon. Dumping	H. P. Wayman	465,904	Dec. 29	3033	776	57	1752
Wagon. Dumping	W. E. Welch	446,308	Feb. 10	1336	325	54	776
Wagon. Dumping	F. Winter	460,258	Sept. 29	2686	669	56	1614
Wagon. Farm	J. Herby	444,356	Jan. 6	581	149	54	116
Wagon. Farm	M. W. Montgomery	451,297	May 5	679	172	55	708
Wagon. Fire-department	C. T. Holloway	460,777	Oct. 6	387	94	57	76
Wagon gear. Road	J. Hochheimer and L. M. Smith	451,442	Apr. 28	2910	695	55	568
Wagon-jack	C. C. Bower and A. B. Evans	447,756	Mar. 10	777	193	54	1272
Wagon-jack	C. H. Dewelly	457,309	Aug. 4	613	161	56	647
Wagon-jack	C. Emons	463,599	Nov. 17	2200	580	57	993
Wagon-jack	J. W. Garrett	444,347	Jan. 6	570	146	54	113
Wagon-jack	W. Leavegood	463,355	Nov. 17	1812	473	57	917
Wagon-jack	D. A. McFavish	465,386	Dec. 15	2209	566	57	1573
Wagon-jack	W. C. Merritt	451,501	May 5	92	23	55	597
Wagon-jack	P. Petersen	462,327	Nov. 3	173	44	57	583
Wagon-jack	O. H. Robertson	455,357	July 7	90	26	56	21
Wagon-jack	D. F. Spangler, A. S. and G. W. Good	458,379	Aug. 25	2383	581	56	1005
Wagon-lock	T. F. Bashaw and B. P. Scovill	462,682	Nov. 10	738	191	57	702
Wagon-lock	B. G. Lowrey	451,861	May 5	628	156	55	698
Wagon. Mail	R. R. Richardson	463,453	Nov. 17	1957	511	57	947
Wagon. Night-lunch	C. H. Palmer	458,738	Sept. 1	287	70, 71	56	1120
Wagon. Oil-tank	A. G. Wyeth and W. M. McCully	458,610	Sept. 1	96	22	56	1085
Wagon or carriage wrench	D. Cram	445,258	Jan. 27	2064	532	54	426
Wagon. Platform	T. Hill	460,870	Oct. 6	512	131	57	101
Wagon. Road	H. Eckler and J. Woesner	461,073	Oct. 13	817	209	57	164
Wagon running-gear	H. J. Gouldberg	444,827	Jan. 20	1329	345	54	277
Wagon running-gear	F. H. Harris	465,370	Dec. 15	2185	560	57	1568
Wagon running-gear	S. E. Oviatt	463,669	Nov. 24	2318	608	57	1024
Wagon running-gear	W. Sheridan	464,735	Dec. 8	1130	280	57	1359
Wagon running-gear	D. H. Turnbull	452,814	May 26	2213	555	55	1019
Wagon running-gear. Road	C. W. Saladee	451,524	May 5	120	30	55	602
Wagon running-gear. Road	C. W. Saladee	451,525	May 5	121	31	55	602
Wagon-shackle	F. Brown	459,991	Sept. 22	2282	572	56	1527
Wagon-spring brace	S. Trumbore	444,469	Jan. 13	766	199	54	160
Wagon steering apparatus. Traction	J. B. Osborne	465,491	Dec. 22	2368	606	57	1615
Wagon-step	H. R. Roden	455,639	July 7	553	144	56	107
Wagon. Tank	D. Maxon	453,358	June 2	276	73	55	1199
Wagon. Tobacco	M. F. C. O'Brien	447,546	Mar. 3	459	113	54	1204
Wagon-top	J. James	450,158	Apr. 14	755	191	55	153
Wagon. Training	O. P. Updegraff	458,668	Sept. 1	190	44, 45	56	1101
Wagon-trains. Connection for	W. H. Thurman	449,980	Apr. 7	498	124	55	97
Wagon-wheel	C. T. Wollman	462,387	Nov. 3	272	67	57	602
Wagon-wrench	W. G. Smith	444,571	Jan. 13	937	243	54	194
Wagons. Metal bodies for road	C. A. Russell	453,866	June 9	1060	277	55	1358
Wagons. Platform-spring for road	C. W. Saladee	448,790	Mar. 24	2488	621	54	1617
Waist and skirt. Combined	E. Lee	444,001	Jan. 6	29	9	54	9

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Waistband	F. Spitz	446,270	Feb. 10	1274	312	54	763
Waistband	F. Spitz	449,710	Apr. 7	101	27	55	22
Waistband	T. D. Terry	464,402	Dec. 1	615	151	57	1250
Walking-stick grapple	K. A. E. Ulbricht	465,222	Dec. 15	1930	491	57	1521
Wall and ceiling polish	T. J. Neavitt	446,265	Feb. 10	1268	.....	54	762
Wall-coverings. Composition of matter for	G. W. Abell	462,678	Nov. 10	733	.....	57	701
Wall for buildings or other structures	J. W. Beaumont	466,147	Dec. 29	3445	882	57	1832
Wall. Iron retaining	J. Becker	465,107	Dec. 15	1753	443	57	1488
Wall-paper	N. R. Streeter	444,213	Jan. 6	378	94	54	75
Wall-paper clamp and brush. Combined	P. McQueney	451,879	May 5	654	165	55	703
Wall-paper-exhibiting machine	T. M. Robertson	460,727	Oct. 6	313	77	57	62
Wall-paper exhibitor	A. F. Payne	459,567	Sept. 15	1615	405	56	1394
Wall-paper exhibitor	A. H. Peats	454,494	June 23	1977	514	55	1549
Wall-paper exhibitor	O. D. Swartz	452,398	May 19	1546	{ 383 } { 384 }	55	884
Wall-paper or other materials. Tool for cutting	A. G. Johnson	463,838	Nov. 24	2570	670	57	1073
Wall-paper. Sales-rack for	W. H. Eastman	449,734	Apr. 7	141	35	55	29
Wall-paper stand	W. J. Thomas	463,653	Nov. 24	2299	{ 603 } { 604 }	57	1020
Wall-paper-trimming gage	J. Marks	454,751	June 23	2388	613	55	1636
Wall-plaster	W. A. Robinson	465,205	Dec. 15	1905	.....	57	1516
Wall-protector	W. H. Jones	452,883	May 26	2324	586	55	1039
Wall-protector	M. T. Prescott	456,775	July 28	2374	624	56	427
Wall-protector and fender	M. Hall	459,251	Sept. 8	1105	270	56	1287
Walls or ceilings. Device for securing fixtures to	T. Wrigley	450,127	Apr. 7	707	178	55	138
Walls or ceilings. Ornamenting	T. Tucker	465,102	Dec. 15	1744	442	57	1486
Wardrobe	C. O. Charles	452,594	May 19	1861	468	55	941
Wardrobe	W. T. Cottier	462,938	Nov. 10	1155	299	57	783
Wardrobe. Adjustable	C. H. Redding	455,725	July 7	697	183	56	134
Wardrobe and desk. Combined	T. A. Galt	457,450	Aug. 11	869	226	56	702
Wardrobe. Folding	N. E. Robinson	461,222	Oct. 13	1058	268	57	210
Wardrobe-hook	W. B. Comstock	445,948	Feb. 3	703	171	54	651
Warming closet or oven	J. Erben	459,199	Sept. 8	1028	251	56	1272
Warp-beamer	R. Simon	450,259	Apr. 14	921	{ 228 } { 229 }	55	183
Warp-threads. Machine for drawing in	R. H. Ingersoll	461,613	Oct. 20	1736	{ 426 } { 427 } { 428 } { 429 }	57	347
Warps. Machine for linking and double linking	W. A. Denn	460,098	Sept. 22	2446	612	56	1559
Warping-machine	W. J. Lutton	450,728	Apr. 21	1672	{ 403 } { 404 }	55	342
Warping-machine attachment	T. A. Davis	452,127	May 12	1104	{ 281 } { 282 }	55	790
Warping-machines. Cut-marker and stop-motion for	C. Denn	450,509	Apr. 14	1309	{ 321 } { 322 }	55	258
Wash-board	F. A. and R. W. Balch	465,405	Dec. 15	2236	573	57	1578
Wash-board	C. D. Fuller	455,036	June 30	2916	741	55	1731
Wash-board	J. H. Lapham	452,884	May 26	2325	586	55	1039
Wash-board	J. T. Lenoir	451,432	Apr. 28	2785	688	55	563
Wash-board	N. B. Little	457,126	Aug. 4	293	77	56	589
Wash-board	G. M. Price	451,844	May 5	692	150	55	694
Wash-board	M. Scott	444,022	Jan. 6	63	17	54	15
Wash-board	C. H. Smith	449,972	Apr. 7	488	121	55	95
Wash-boiler	D. and D. Coffey	453,463	June 2	457	117	55	1234
Wash-boiler	E. Detrich and W. J. Walker	448,507	Mar. 17	2024	506	54	1521
Wash-boiler	C. H. Fitzgerald	450,064	Apr. 7	612	154	55	119
Wash-boiler	E. W. Giddings	463,578	Nov. 17	2163	571	57	986
Wash-boiler	C. F. Haussler	460,796	Oct. 6	413	101	57	82
Wash-boiler	L. Jones	459,549	Sept. 15	1587	397	56	1389
Wash-boiler	J. F. Rowell	447,584	Mar. 3	516	126	54	1214
Wash-boiler	C. Schmisser	450,845	Apr. 21	1870	457	55	378
Wash-boiler drip-protector	F. Johnson and D. Burkhartsmeier	461,834	Oct. 27	2110	519	57	426
Wash-boiler handle	W. A. Smith	459,314	Sept. 8	1198	291	56	1307
Wash-out closet. Porcelain	J. Reid	448,864	Mar. 24	2609	655	54	1640
Wash-stand	W. H. Lincoln	458,909	Sept. 1	565	137	56	1173
Wash-stand and commode cabinet	T. A. Galt	455,792	July 14	810	212	56	165
Wash-stand and table. Combined	W. D. Snyder	463,220	Nov. 17	1591	414	57	876
Wash-stand, desk, and closet. Combined	W. A. Greene	444,531	Jan. 13	867	225	54	181
Wash-stand. Stationary	L. E. Bathrick	450,801	Apr. 21	1787	434	55	364
Wash-stands. Supply-tank for	J. Penney	464,105	Dec. 1	147	36	57	1165
Wash-tub	J. Kellow	445,643	Feb. 3	202	53	54	552
Washer:							
See Axle-washer. Lock-washer.							
Barrel-washer. Ore-washer.							
Bottle-washer. Resilient spiral washer.							
Dish-washer. Window-washer.							
Elastic washer.							
Washer	A. F. W. Partz	454,289	June 16	1659	435	55	1481
Washer-cutter	A. Dewes and R. P. Frist	465,840	Dec. 29	2922	748	57	1731
Washer for exhaust-steam	L. Hussey and E. McCann	456,572	July 28	2024	535	56	410
Washers, &c. Holder for	F. E. Boss	444,328	Jan. 6	541	140	54	108
Washer-making machine	J. Ettinger	457,951	Aug. 18	1687	443	56	867
Washers. Machine for forming	C. T. Griley	455,793	July 14	812	212	56	165
Washers. Machine for making metal	J. Ettinger	457,950	Aug. 18	1685	{ 442 } { 443 }	56	867
Washing and dyeing apparatus	D. Halsey, Jr.	450,865	Apr. 21	1896	465	55	383
Washing and rubbing apparatus	G. W. Kraft	455,567	July 7	434	115	56	84
Washing apparatus	J. Borst	461,125	Oct. 13	881	220	57	177
Washing compound	W. G. Eckstein	454,154	June 16	1464	.....	55	1443
Washing compound	H. Ervin	448,421	Mar. 17	1895	.....	54	1497
Washing-fluid	J. H. Seclberger	450,431	Apr. 14	1199	55	236
Washing-machine	O. Anderson	463,850	Nov. 24	2596	675	57	1077

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Washing-machine.....	H. B. Baker.....	457,979	Aug. 18	1735	456	56	876
Washing-machine.....	W. J. Beunington.....	449,995	Apr. 7	522	130	55	101
Washing-machine.....	J. S. Blood.....	465,152	Dec. 15	1829	464	57	1501
Washing-machine.....	W. G. Boston.....	454,842	June 30	2545	{ 654 655 }	55	1660
Washing-machine.....	L. D. Brady.....	458,941	Sept. 1	613	151	56	1184
Washing-machine.....	J. N. Bunch.....	448,118	Mar. 10	1367	350	54	1387
Washing-machine.....	J. C. Burt.....	451,688	May 5	377	92	55	651
Washing-machine.....	J. W. Butler.....	454,028	June 16	1979	333	55	1408
Washing-machine.....	W. J. Campbell.....	460,387	Sept. 29	2896	{ 723 724 }	56	1652
Washing-machine.....	J. H. Carpenter.....	444,813	Jan. 20	1304	339	54	272
Washing-machine.....	H. F. Carrico.....	460,945	Oct. 13	633	163	57	130
Washing-machine.....	A. A. Casler.....	466,002	Dec. 29	3220	820	57	1786
Washing-machine.....	A. G. Christman.....	444,421	Jan. 13	694	181	54	145
Washing-machine.....	H. Church.....	461,736	Oct. 20	1938	{ 480 481 }	57	384
Washing-machine.....	J. Danner.....	453,336	June 2	248	66	55	1195
Washing-machine.....	H. S. Daubenspeck.....	450,721	Apr. 21	1065	{ 401 402 }	55	340
Washing-machine.....	W. L. Dearth.....	448,134	Mar. 10	1396	356	54	1393
Washing-machine.....	W. Donaldson.....	451,757	May 5	486	120	55	670
Washing-machine.....	W. M. Doty.....	461,147	Oct. 13	915	237	57	183
Washing-machine.....	F. S. Dowell.....	462,629	Nov. 3	642	162	57	675
Washing-machine.....	J. Dowling.....	465,168	Dec. 15	1853	470	57	1506
Washing-machine.....	C. O. Garrison.....	452,129	May 12	1108	282	55	791
Washing-machine.....	A. W. Gibbs.....	464,017	Dec. 1	22	6	57	1140
Washing-machine.....	S. Grogg.....	464,069	Dec. 1	96	24	57	1155
Washing-machine.....	W. H. Haire.....	452,670	May 19	1978	496	55	964
Washing-machine.....	W. G. Hanna.....	464,633	Dec. 8	958	{ 236 237 }	57	1328
Washing-machine.....	J. A. Harris.....	450,571	Apr. 14	1385	342	55	273
Washing-machine.....	B. F. Hartman.....	451,048	Apr. 28	2181	539	55	447
Washing-machine.....	B. H. Hecht.....	456,145	July 21	1331	{ 353 354 }	56	272
Washing-machine.....	J. W. Heldreth and J. A. Dix.....	460,965	Oct. 13	664	171	57	136
Washing-machine.....	C. C. Henderson.....	450,725	Apr. 21	1669	403	55	341
Washing-machine.....	J. Hofmann.....	455,401	July 7	163	41, 42	56	35
Washing-machine.....	W. Huff.....	462,946	Nov. 10	1163	301	57	784
Washing-machine.....	C. E. and F. L. Hutcheson.....	452,788	May 26	2174	544	55	1011
Washing-machine.....	G. H. Jantz.....	448,654	Mar. 24	2370	569	54	1575
Washing-machine.....	D. C. Jordan.....	460,376	Sept. 29	2883	720	56	1650
Washing-machine.....	M. Josephson.....	456,310	July 21	1595	422	56	322
Washing-machine.....	N. D. Killgore.....	462,139	Oct. 27	2582	643	57	516
Washing-machine.....	J. E. Lamborn and R. Rickards.....	448,526	Mar. 17	2051	513	54	1527
Washing-machine.....	J. L. Le Beau.....	450,464	Apr. 14	1242	303	55	243
Washing-machine.....	M. Lumley.....	450,727	Apr. 21	1671	403	55	342
Washing-machine.....	J. B. Martin.....	459,297	Sept. 8	1176	285	56	1301
Washing-machine.....	D. H. Mathias.....	457,452	Aug. 11	872	226	56	703
Washing-machine.....	B. T. McChesney.....	458,293	Aug. 25	2238	547	56	978
Washing-machine.....	J. McDonald.....	461,505	Oct. 20	1567	384	57	316
Washing-machine.....	G. D. McIlvoy.....	457,428	Aug. 11	835	216	56	696
Washing-machine.....	E. G. Minnemeyer.....	456,222	July 21	1447	383	56	294
Washing-machine.....	I. C. Montfort.....	450,675	Apr. 21	1603	385	55	329
Washing-machine.....	R. Newell.....	463,914	Nov. 24	2709	{ 703 704 }	57	1097
Washing-machine.....	W. J. Norwood.....	444,010	Jan. 6	43	12	54	12
Washing-machine.....	W. J. Norwood.....	453,777	June 9	946	245	55	1335
Washing-machine.....	A. Ogle.....	445,338	Jan. 27	2172	563	54	450
Washing-machine.....	A. C. Papke.....	464,583	Dec. 8	882	217	57	1313
Washing-machine.....	W. H. Parker.....	449,694	Apr. 7	73	18	55	16
Washing-machine.....	K. F. Polk.....	449,700	Apr. 7	81	21	55	18
Washing-machine.....	A. Powell.....	463,918	Nov. 24	2714	705	57	1098
Washing-machine.....	J. E. Ratcliff.....	460,446	Sept. 29	2970	743	56	1667
Washing-machine.....	W. R. Salisbury.....	459,311	Sept. 8	1195	290	56	1306
Washing-machine.....	J. Schrib.....	446,144	Feb. 10	1042	256	54	720
Washing-machine.....	H. C. Schnltz.....	464,334	Dec. 1	518	126	57	1233
Washing-machine.....	A. J. Seyler.....	457,223	Aug. 4	458	120	56	619
Washing-machine.....	Z. W. Shields.....	451,530	May 5	127	32	55	603
Washing-machine.....	J. H. Slack.....	448,377	Mar. 17	1821	459	54	1483
Washing-machine.....	G. W. Smith.....	456,445	July 21	1822	482	56	364
Washing-machine.....	H. R. Smith and J. E. Swain.....	450,979	Apr. 21	2076	513	55	418
Washing-machine.....	A. J. Stasey.....	460,835	Oct. 6	462	117	57	92
Washing-machine.....	S. J. Stokes.....	445,458	Jan. 27	2340	608	54	482
Washing-machine.....	L. F. and N. Stout.....	449,600	Mar. 31	3787	950	54	1869
Washing-machine.....	W. R. Swindler.....	455,367	July 7	106	30	56	24
Washing-machine.....	W. Tacket and P. Raddas.....	449,834	Apr. 7	295	77	55	58
Washing-machine.....	A. Taube.....	454,933	June 30	2726	695	55	1694
Washing-machine.....	T. J. Thorp.....	447,520	Mar. 3	418	{ 102 103 }	54	1196
Washing-machine.....	W. H. Turnbull.....	444,737	Jan. 13	1193	{ 308 309 }	54	242
Washing-machine.....	W. H. Turnbull.....	453,135	May 26	2738	690	55	1120
Washing-machine.....	W. R. Turner, M. Hamilton, and A. T. Long.....	444,964	Jan. 20	1602	409	54	328
Washing-machine.....	E. E. Unangst.....	446,800	Feb. 17	2096	522	54	941
Washing-machine.....	M. Van Auken.....	454,309	June 16	1689	{ 441 442 }	55	1487
Washing-machine.....	J. A. Van Winkle.....	451,787	May 5	525	129	55	678
Washing-machine.....	C. H. Vorderbrugge.....	457,017	Aug. 4	130	32	56	558
Washing-machine.....	T. Waldron.....	454,509	June 23	2005	520	55	1554
Washing-machine.....	G. P. Walter.....	446,958	Feb. 24	2370	{ 589 590 }	54	1000
Washing-machine.....	G. P. Walter.....	461,946	Oct. 27	2290	567	57	462

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Washing-machine.....	J. E. Watkins.....	462,521	Nov. 3	469	114	57	640
Washing-machine.....	A. Wells.....	459,775	Sept. 22	1951	492	56	1465
Washing-machine.....	J. A. and A. M. Weston.....	464,181	Dec. 1	260	64	57	1185
Washing-machine.....	G. W. Wheatly.....	446,906	Feb. 24	2298	572	54	987
Washing-machine.....	H. K. Williams.....	461,301	Oct. 13	1172	298	57	234
Washing-machine.....	C. R. Wood.....	450,718	Apr. 21	1662	400	55	314
Washing-machine.....	D. K. Wright.....	456,370	July 21	1691	446	56	340
Washing-machines, chnrns, &c. Gearing for.....	G. M. Walker.....	451,091	Apr. 28	2235	553	55	459
Washing-machines Means for operating.....	A. Gagné.....	450,786	Apr. 21	1761	428	55	359
Washing preparation.....	R. P. Halleck.....	449,879	Apr. 7	352	.....	55	70
Waste and overflow pipe for bath-tubs, &c. Stand- ing.....	M. T. F. O'Donnell.....	453,308	June 2	198	54	55	1185
Waste-pipe.....	T. Keely.....	444,297	Jan. 6	498	130	54	99
Watch.....	M. Benjamin.....	458,745	Sept. 1	297	72, 73	56	1122
Watch-adjustment.....	C. E. Emery.....	453,967	June 9	1190	{ 310 311 297 298 }	55	1383
Watch-balances. Adjusting hair-springs to.....	C. E. Emery.....	453,927	June 9	1136	{ 297 298 }	55	1373
Watch-bow fastener.....	E. C. Chappatte.....	459,133	Sept. 8	926	223	56	1253
Watch-bow fastener.....	O. Johanson.....	464,743	Dec. 8	1145	284	57	1361
Watch-bow fastener.....	J. J. Hogan.....	460,872	Oct. 6	515	131	57	100
Watch-bow fastener.....	E. Klahn.....	449,255	Mar. 31	3204	808	54	1763
Watch-bow fastener.....	E. Klahn.....	453,843	June 9	1028	268	55	1351
Watch-bow fastener.....	F. Mink.....	454,827	June 23	2516	647	55	1648
Watch-bow fastener.....	F. Mink.....	456,899	July 28	2572	676	56	513
Watch-bow fastener.....	F. Mink.....	456,900	July 28	2573	676	56	513
Watch-bow fastener.....	F. Mink.....	456,901	July 28	2574	676	56	513
Watch-bow fastener.....	F. Mink.....	456,902	July 28	2575	676	56	513
Watch-bow fastener.....	F. Mink.....	460,074	Sept. 22	2409	603	56	1552
Watch-bow fastener.....	F. Mink.....	460,879	Oct. 6	525	134	57	103
Watch-bow fastener.....	F. Mink.....	461,798	Oct. 20	2048	505	57	405
Watch-bow fastener.....	F. Mink.....	460,278	Dec. 29	3641	931	57	1869
Watch-bow fastener.....	C. F. Morrill.....	449,885	Apr. 7	359	91	55	71
Watch-bow fastener.....	C. F. Morrill.....	459,195	Sept. 8	1022	249	56	1271
Watch-case.....	F. Ecaubert.....	457,147	Aug. 4	328	84	56	596
Watch-case.....	E. F. Heffernan.....	446,737	Feb. 17	2003	499	54	921
Watch-case.....	N. Moore.....	455,231	June 30	3244	823	55	1795
Watch-case.....	J. E. Searing.....	450,637	Apr. 21	1544	371	55	318
Watch-case.....	J. E. Searing.....	463,289	Nov. 17	1694	443	57	897
Watch-case back or cap.....	P. Stucker.....	460,044	Sept. 22	2364	591	56	1543
Watch-case centers. Apparatus for shaping and or- namenting.....	G. Bourquin.....	454,707	June 23	2324	597	55	1613
Watch-case centers or other articles. Tool for orna- menting.....	F. Ecaubert.....	451,557	June 23	2073	536	55	1567
Watch-case hinge.....	G. Newton.....	457,739	Aug. 11	1329	345	56	793
Watch-case pendant.....	D. E. Grant.....	445,172	Jan. 27	1924	497	54	400
Watch-case pendant.....	B. Schiff and L. Mayer.....	447,908	Mar. 10	1050	262	54	1324
Watch-case opener.....	D. Southworth.....	451,982	May 12	834	213	55	745
Watch-case spring.....	N. J. Felix.....	455,436	July 7	221	56	56	45
Watch-case spring.....	N. J. Felix.....	455,437	July 7	222	57	56	45
Watch-case spring.....	J. H. Fleming.....	450,566	Apr. 14	1379	340	55	272
Watch-case spring.....	J. H. Fleming.....	465,593	Dec. 22	2549	650	57	1648
Watch-case spring.....	A. Milne.....	453,202	June 2	32	10	55	1155
Watch-case spring.....	C. Nobis.....	465,584	Dec. 22	2531	645	57	1646
Watch-case spring.....	J. Pallweber.....	447,473	Mar. 3	349	87	54	1183
Watch-case spring.....	J. E. Searing.....	450,638	Apr. 21	1546	372	55	318
Watch-case. Traveler's.....	E. A. Lanten.....	449,370	Mar. 31	3424	860	54	1800
Watch-cases. Apparatus for forming hinge-flats upon.....	F. Mink.....	462,803	Nov. 10	923	{ 240 241 }	57	739
Watch-cases. Decorating.....	E. Leach.....	454,946	June 30	2747	700	55	1698
Watch-cases, &c. Machine for ornamenting.....	C. F. Morrill.....	454,283	June 16	1649	433	55	1479
Watch-cases. Mechanism for making.....	F. Ecaubert.....	457,149	Aug. 4	330	85	56	596
Watch-cases, &c. Ornamenting.....	F. Ecaubert.....	457,150	Aug. 4	332	85	56	507
Watch. Compass.....	T. F. Burgdorf.....	460,097	Sept. 22	2445	611	56	1559
Watch-dial enameling and baking machine.....	E. H. Ryon.....	459,949	Sept. 22	2227	559	56	1517
Watch-dial-enameling machine.....	E. H. Ryon.....	459,968	Sept. 22	2249	565	56	1521
Watch-dials. Making.....	J. Jacobson.....	444,894	Jan. 20	1472	381	54	304
Watch-hands to cards. Device for securing.....	N. P. Mulloy.....	456,335	July 21	1633	432	56	329
Watch-jewel holder.....	F. R. Cunningham.....	461,322	Oct. 13	1200	305	57	240
Watch-key.....	R. H. Franklin.....	453,168	May 26	2807	703	55	1130
Watch-mainspring.....	E. M. Fasoldt.....	448,191	Mar. 10	1486	379	54	1411
Watch-mainspring holder.....	D. W. Eldredge.....	452,566	May 19	1818	457	55	933
Watch-maker's balance-pliers.....	F. C. Ries.....	461,393	Oct. 13	1331	336	57	265
Watch-maker's jewel-setting cutter.....	A. Hartung.....	451,712	May 5	408	99	55	656
Watch-maker's lathe.....	E. S. Stehman.....	463,750	Nov. 21	2442	640	57	1047
Watch-maker's lathe.....	E. S. Stehman.....	463,751	Nov. 24	2446	641	57	1048
Watch-maker's pliers.....	E. E. Coble.....	449,310	Mar. 31	3300	824	54	1779
Watch-maker's punch.....	G. W. Hummel.....	455,253	June 30	3278	831	55	1601
Watch-maker's punch.....	U. D. Miner.....	450,520	Apr. 14	1326	326	55	261
Watch-maker's roller-remover.....	M. L. Sheehan.....	453,920	June 9	1128	295	55	1371
Watch-maker's ruby-pin setter.....	F. Heller.....	464,870	Dec. 8	1328	333	57	1398
Watch-maker's staking-tool.....	G. Sylvia.....	450,263	Apr. 14	926	230	55	184
Watch-maker's tool.....	J. Fisher.....	458,546	Aug. 25	2641	643	56	1056
Watch-maker's tool.....	J. Fisher.....	461,148	Oct. 13	917	237	57	183
Watch-maker's tool.....	C. London.....	455,629	July 7	534	140	56	103
Watch-maker's tool.....	M. Wollman.....	456,975	Aug. 4	83	20	56	549
Watch-maker's tuning-tool.....	R. E. Fenner.....	459,928	Sept. 22	2201	553	56	1512
Watch-maker's tweezers.....	F. A. Bartlett.....	465,606	Dec. 22	2570	654	57	1652
Watch-maker's tweezers.....	O. Kolstad.....	460,018	Sept. 22	2321	581	56	1535
Watch-movement box.....	J. C. Duher.....	465,843	Dec. 29	2930	749	57	1732
Watch-movement box.....	H. E. Duncan.....	456,358	July 21	1670	441	56	336
Watch-movement. Eight-day.....	C. G. Wilson.....	453,952	June 9	1171	{ 305 306 }	55	1380
Watch-pendant.....	F. G. Faxon.....	450,579	Apr. 14	1395	344	55	275

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dis.	Vol.	Page.
Watch. Pendant-set	R. L. Peabody	447,474	Mar. 3	350	87	54	1183
Watch-pocket	E. W. Parno	466,292	Dec. 29	3671	938	57	1874
Watch-protector	A. Epple	450,842	Apr. 21	1859	453	55	376
Watch-regulator	A. Ducommun	460,957	Oct. 13	648	167	57	134
Watch-regulator	S. L. Gaarder	459,278	Sept. 8	1147	280	56	1296
Watch-regulator	S. L. Gaarder	459,279	Sept. 8	1148	280	56	1296
Watch-regulator	C. R. Kinehan	465,935	Dec. 29	3079	790	57	1761
Watch-regulator	C. Nobs	444,458	Jan. 13	747	195	54	156
Watch. Repeating	E. Perrin	451,291	June 16	1661	436	55	1481
Watch. Repeating	B. Reber	447,973	Mar. 10	1161	294	54	1344
Watch-springs. Apparatus for coloring	J. Logan	459,914	Sept. 22	2180	548	56	1508
Watch. Stem-winding	J. A. L. Monnier	464,131	Dec. 1	181	45	57	1171
Watch. Stem winding and setting	A. Chopard	418,877	Mar. 24	2624	659	54	1643
Watch. Stem winding and setting	G. E. Hart	457,197	Aug. 4	410	107	56	610
Watch. Stem winding and setting	C. T. Higginbotham	458,366	Aug. 25	2359	575 576	56	1002
Watch. Stem winding and setting	J. Johnson	445,182	Jan. 27	1942	502	54	403
Watch. Stem winding and setting	R. E. Moreland	451,600	May 5	233	56	55	624
Watch. Stem winding and setting	P. Nisius	452,384	May 19	1523	378	55	879
Watch. Stem winding and setting	F. Pequegnat	462,506	Nov. 3	447	109	57	635
Watch. Stop	F. Bourquin	458,348	Aug. 25	2329	569	56	996
Watch. Stop	R. Bragge	448,930	Mar. 24	2695	6-0	54	1657
Watch. Stop	N. Jensen	458,460	Aug. 25	2500	608	56	1028
Watch. Stop	E. Kuhn	445,064	Jan. 20	1751	451	54	358
Watch. Stop	L. E. Pignet	449,915	Apr. 7	408	102	55	80
Watch. Stop	P. Sandoz-Barbier	455,026	June 30	2897	736	55	1728
Watch. Stop	C. Schlatter	448,549	Mar. 17	2079	522	54	1533
Watch-winding mechanism	R. E. Moreland	451,566	May 5	182	44	55	614
Watches. Balance-staff for	J. H. Cooper	451,808	May 5	553	136	55	684
Watches. Electro-magnetic apparatus for operating stop	F. A. Matthews	450,966	Apr. 21	2056	507	55	414
Watches. Jewel-bearing for	W. W. Hastings	463,625	Nov. 24	2251	593	57	1012
Watches. Jewel-support for balance-staffs of	J. Villou	448,896	Mar. 24	2651	665	54	1648
Watches. Means for recovering lost or stolen	J. W. Schell	450,427	Apr. 14	1194	291	55	234
Watches or other time-pieces. Repeating mechanism for	F. Terstegen. (Reissue)	11,151	Mar. 10	1494	381	54	1412
Watches. Safety attachment for stem-winding	R. A. Lucas and C. F. Phelps	458,911	Sept. 1	568	138	56	1174
Watches. Safety-pocket for	J. Zwick	463,882	Nov. 24	2654	692	57	1087
Watches. Seconds-hand device for stem-setting	N. Jensen	458,459	Aug. 25	2498	608	56	1027
Watchman's electric recorder	H. Redding	464,256	Dec. 1	397	94.95	57	1209
Watchman's time-detector	A. Newman	455,410	July 7	183	47.48	56	38
Watchman's time-recorder	J. A. Lannert	455,440	July 7	225	58	56	46
Water-alarm for steam-boilers	S. E. Roberts and J. E. Lathe	444,713	Jan. 13	1137	293	54	233
Water and gas connection and gas-regulator. Combined	R. P. Barnstead	462,292	Nov. 3	114	28.29	57	573
Water and like closet and article	A. G. Chadbourne	461,734	Oct. 20	1934	479	57	383
Water. Apparatus for automatically shutting off	G. P. G. and C. G. Rives	458,496	Aug. 25	2567	625	56	1040
Water. Apparatus for deaerating	E. A. Qusenberry	460,030	Sept. 22	2135	585	56	1538
Water-back	J. Reynolds	448,995	Mar. 24	2792	706	54	1676
Water-bag. India-rubber	A. A. Hesser	446,518	Feb. 17	1672	408	54	856
Water-bar grate. Circulating	J. Reagan	459,342	Sept. 8	1249	307	56	1316
Water-closet	J. G. Bryan	448,908	Mar. 24	2607	670	54	1651
Water-closet	W. Bunting, Jr.	462,029	Oct. 27	2414	599	57	485
Water-closet	W. Bunting, Jr.	462,030	Oct. 27	2415	599	57	485
Water-closet	W. Bunting, Jr.	465,609	Dec. 22	2574	534	57	1652
Water-closet	J. H. Hamilton	453,809	June 9	990	257	55	1344
Water-closet	J. M. Holloway	445,892	Feb. 3	619	152	54	633
Water-closet bowl	J. C. Beekman	452,963	May 26	2459	621	55	1066
Water-closet bowl	W. S. Cooper	414,243	Jan. 6	425	107	54	83
Water-closet bowls. Seat-attaching device for	W. S. Cooper	458,017	Aug. 18	1791	468	56	866
Water-closet cistern	C. G. Zeilman	444,310	Jan. 6	516	134 135	54	103
Water-closet coupling	J. A. Lynch	465,617	Dec. 22	2587	657	57	1655
Water-closet lid	C. Anderson	456,007	July 14	1134	297	56	224
Water-closet lids. Closing device for	W. R. Webster	452,684	May 19	1999	505	55	969
Water-closet. Portable	A. J. Niles	445,191	Jan. 27	1956	506	54	406
Water-closet. Portable	A. J. Niles	449,426	Mar. 31	3523	887	54	1820
Water-closet reservoir	W. S. Cooper	445,424	Jan. 27	2296	595 596	54	474
Water-closet seat	G. J. Kremelberg	454,743	June 23	2378	611	55	1624
Water-closet seat	J. Reid	454,545	June 23	2057	532	55	1564
Water-closet seat and seat-cover	J. D. Cohn	457,809	Aug. 18	1441	374 375	56	822
Water-closet siphon-valve flushing apparatus	C. A. Blessing	446,808	Feb. 17	2107	524	54	943
Water-closet supply-tanks. Valve-operating mechanism for	T. McHugh	466,103	Dec. 29	3369	560 561	57	1817
Water-closet-tank valve	F. A. Wells	456,178	July 21	1379	366	56	281
Water-closet tanks. Lever-support for	G. K. Dearborn	465,839	Dec. 29	2921	748	57	1731
Water-closet tanks. Operating valve in	W. H. Ward	449,770	Apr. 7	195	49.50	55	40
Water-closet tanks. Valve-controlling mechanism for	H. C. Folger and G. K. Dearborn	453,997	June 9	1238	322	55	1393
Water-closet tanks. Water-supply apparatus for	T. McHugh	449,944	Apr. 7	446	111 112	55	87
Water-closet valve	W. H. Ward	449,769	Apr. 7	194	48.49	55	39
Water-closet-valve regulator	J. Buckley	444,528	Jan. 13	863	224	54	180
Water-closets. Atomizer for	C. Lightbody	448,784	Mar. 24	2480	620	54	1616
Water-closets. Automatic flushing device for	R. M. Reilly	450,376	Apr. 14	1118	274	55	220
Water-closets. Double flush-tank for	J. C. Beekman	452,962	May 26	2157	620	55	1066
Water-closets. Flushing-tank for	F. L. Mentel	448,800	Mar. 24	2500	626	54	1620
Water-closets or other constructions. Valve for	J. Vosburgh	453,069	May 26	2631	664	55	1099
Water-closets. Water-supplying apparatus for	W. H. Ward	449,768	Apr. 7	192	48	55	39
Water-coil boiler	G. A. Setzer	444,399	Jan. 6	653	169	54	129
Water-conductor iron	G. O. Barbour	446,506	Feb. 17	1653	403	54	853
Water. Construction of apparatus for softening and purifying	R. S. Brownlow	461,661	Oct. 20	1827	452	57	363

Alphabetical list of inventions—Continued.

Invention	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Water-cooler	A. T. Beacham	445,667	Feb. 3	241	65, 66	54	559
Water-discharging apparatus	M. H. Robinson	464,716	Dec. 8	1105	274	57	1355
Water-elevator	J. Fagoaga	449,252	Mar. 31	3201	807	54	1762
Water-elevator	W. C. Jones	465,062	Dec. 15	1665	424	57	1471
Water-elevator. Automatic	H. R. Estes	450,062	Apr. 7	607	153	55	1118
Water-elevator. Vacuum	D. P. Burdon	460,845	Oct. 6	476	121	57	95
Water-elevator. Windlass	J. M. Huff	462,875	Nov. 10	1045	270	57	762
					271		
Water-elevators. Device for tilting buckets in	M. F. Bagley	456,255	July 21	1510	401	56	306
Water-engine	J. R. Ricketts	463,583	Nov. 17	2171	573	57	988
Water-falls. Apparatus for producing artificial	F. H. Smith	456,680	July 28	2206	585	56	447
Water for animals. Apparatus for supplying	J. Allis	465,038	Dec. 15	1626	414	57	1465
Water-gage	I. A. Fuller	444,295	Jan. 6	496	129	54	99
Water-gage	W. A. McFarlane and S. A. Barrett	452,678	May 19	1992	499	55	967
Water-gage	E. A. and J. Loughry	453,814	June 9	996	260	55	1345
Water-gage	D. B. Morison	456,629	July 28	2124	561	56	430
					562		
Water-gage. Safety	J. F. Walters and J. J. Brown	465,605	Dec. 22	2568	654	57	1652
Water-glass. Dissolving	P. Sievert	445,091	Jan. 20	1785		54	365
Water-grate and feed-water heater. Circulating	W. Evans	459,274	Sept. 8	1140	279	56	1295
Water-heater	W. O. Ewing	466,006	Dec. 29	3224	821	57	1787
Water-heater	J. F. McElroy	452,145	May 12	1134	287	55	795
Water-heater	C. Mitchell	456,582	July 28	2039	539	56	414
Water-heater	E. Ruud	460,513	Sept. 29	3097	774	56	1692
Water-heater	O. M. Shannon	451,624	May 5	279	67	55	631
Water-heater	T. E. Spencer	446,301	Feb. 10	1328	323	54	774
Water heater and purifier. Live and exhaust steam	W. A. Morse	460,482	Sept. 29	3033	760	56	1678
Water-heater for domestic or other purposes	W. G. Flanders	461,867	Oct. 27	2158	532	57	436
Water-heater for stoves, ranges, or furnaces	J. M. Carson	453,855	June 9	1040	272	55	1354
Water-heater. Sectional	L. R. G. C., and J. J. Blackmore	462,683	Nov. 10	739	192	57	702
Water-heater. Sectional	D. E. Howatt	459,096	Sept. 8	871	209	56	1242
					210		
Water-heating apparatus	W. S. Reed	455,057	June 30	2955	752	55	1739
Water-heating attachment for hot-air furnaces	G. G. Wolfe	451,793	May 5	533	131	55	680
					132		
Water-heating device	R. P. White	449,509	Mar. 31	3647	917	54	1844
Water-heating furnace	J. W. Warner	459,243	Sept. 8	1093	267	56	1285
Water-level indicator	F. H. Montreuil	451,699	May 5	390	95	55	653
Water-meter	P. Ainsworth	461,533	Oct. 20	1620	396	57	325
Water-meter	L. H. Nash	459,332	Sept. 8	1231	302	56	1313
					303		
Water-meter	R. J. Rogers	458,739	Sept. 1	289	71	56	1121
Water-meter	H. B. Williams	447,595	Mar. 3	529	130	54	1217
Water-meter. Piston	J. A. Mosher and C. McMahon	445,070	Jan. 20	1758	453	54	359
Water-meter recording mechanism	H. B. Williams	447,594	Mar. 3	528	130	54	1216
Water-meter. Rotary	L. H. Nash	449,821	Apr. 7	273	70, 71	55	54
Water-motor	H. B. Gleason	451,170	Apr. 28	2365	588	55	485
Water-motor	S. B. Goff	457,194	Aug. 4	403	105	56	609
Water-motor	S. Golden	445,551	Feb. 3	35	10	54	518
Water-motor	E. Harryman	452,221	May 12	1255	317	55	820
Water-motor	W. B. Higgins	460,390	Sept. 29	2900	724	56	1653
Water-motor	S. Smyth	445,705	Feb. 3	312	83	54	574
Water or air cylinder	W. J. O. Bryon, Jr.	446,436	Feb. 17	1528	376	54	828
Water or other motor	J. Nielsen	453,128	May 26	2727	687	55	1118
Water-power wheel	J. and O. N. Dahlquist	447,810	Mar. 10	882	220	54	1292
Water-proof compositions from linseed-oil. Making	H. Kellogg	455,286	June 30	3352		55	1816
Water-proof material. Preparing	H. A. Schlesinger	446,294	Feb. 10	1318		54	773
Water-purifier	E. Bretney	453,105	May 26	2693	679	55	1112
Water-purifier	E. Devonshire	458,946	Sept. 1	617	152	56	1185
Water-purifier	E. Devonshire	462,537	Nov. 3	499	122	57	646
Water-purifier	V. M. Dorsey	448,416	Mar. 17	18-7	474	54	1496
Water-purifier and scale-arrester	B. F. Field. (Reissue)	11,143	Feb. 10	1500	370	54	810
Water-purifying apparatus	W. Anderson	444,772	Jan. 13	1244	323	54	251
Water-purifying apparatus	W. Anderson	464,669	Dec. 8	1018	255	57	1339
Water-purifying apparatus	F. A. Bunnell	445,537	Feb. 3	12	3	54	513
Water-purifying apparatus	E. Devonshire	458,887	Sept. 1	535	130	56	1167
Water-purifying apparatus	T. J. Hoyt	445,780	Feb. 3	441	109	54	598
Water-purifying apparatus	T. Shaw	457,917	Aug. 18	1631	427	56	856
Water-raising apparatus	F. H. Merrill	461,192	Oct. 13	992	254	57	197
Water-sprinkler	W. S. Kisinger	447,778	Mar. 10	819	203	54	1280
Water-supply apparatus	C. Monjeau	444,007	Jan. 6	38	11	54	11
Water-supply regulator. Automatic	T. O. Perry	455,950	July 14	1049	275	56	208
Water. System for cooling and distributing drinking	D. Yates and B. Brock	460,490	Sept. 29	3043	762	56	1680
					763		
Water-tank	F. X. Fischer	463,791	Nov. 24	2499	652	57	1058
Water-tank	J. A. Speer	460,998	Oct. 13	711	183	57	145
Water-tank	F. F. Wilcox	448,870	Mar. 24	2615	657	54	1641
Water-tank. Portable	J. M. Sausser	445,413	Jan. 27	2279	591	54	471
Water-tanks. Indicating device for	G. M. Davis	462,837	Nov. 10	985	255	57	750
Water-tower and fire-escape. Combined portable	T. Brock	463,327	Nov. 17	1760	460	57	908
					461		
Water-tower attachment	T. Rawson	463,749	Nov. 24	2441	640	57	1047
Water-trough	B. Koeppe	449,481	Mar. 31	3611	909	54	1837
Water-tube boiler	W. Cowles	465,163	Dec. 15	1842	467	57	1504
					468		
Water-tube boiler	W. Cowles	465,164	Dec. 15	1847	468	57	1504
					469		
Water-tube boiler	J. B. Johnston	454,215	June 16	1549	407	55	1460
					408		
Water-tube boiler	H. W. Seller	464,109	Dec. 1	153	38	57	1166
Water upon hogs. Apparatus for sprinkling	A. W. Street	444,143	Jan. 6	271	65	54	56
Water-ways. Apparatus for deepening and cleaning	F. J. Merriam	454,877	June 30	2600	668	55	1671
Water-ways. Apparatus for scouring	E. G. Holden	449,479	Mar. 31	3608	908	54	1836
					909		

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Water-ways. Balance-lock for	C. N. Dutton	457,528	Aug. 11	991	{ 254 255 }	56	725
Water-wheel	F. M. Bookwalter	445,844	Feb. 3	549	134	54	619
Water-wheel	F. M. Bookwalter	445,845	Feb. 3	551	134	54	619
Water-wheel	F. M. Bookwalter	447,294	Mar. 3	15	5	54	1121
Water-wheel	F. M. Bookwalter	451,259	Apr. 28	2525	622	55	514
Water-wheel	F. M. Bookwalter	452,829	May 26	2232	560	55	1023
Water-wheel	F. M. Bookwalter	465,812	Dec. 22	2870	735	57	1712
Water-wheel	F. M. Bookwalter	465,813	Dec. 22	2872	735	57	1712
Water-wheel	J. W. and F. M. Bookwalter	461,565	Oct. 20	1667	408	57	334
Water-wheel	J. T. Clayton	460,948	Oct. 13	636	{ 164 165 }	57	131
Water-wheel	D. Culver	456,402	July 21	1747	461	56	350
Water-wheel	W. Galbraith	463,792	Nov. 24	2501	653	57	1058
Water-wheel	R. E. Gray	447,725	Mar. 3	717	{ 179 180 }	54	1253
Water-wheel	J. W. Kline	462,821	Nov. 10	955	248	57	745
Water-wheel	F. Lundberg	457,825	Aug. 18	1465	322	56	825
Water-wheel	J. B. Pitchford	460,758	Oct. 6	357	88	57	70
Water-wheel	J. B. Pitchford	460,815	Oct. 6	439	111	57	88
Water-wheel	F. Trump	447,850	Mar. 10	949	238	54	1305
Water-wheel	F. Trump	452,813	May 26	2210	{ 554 555 }	55	1019
Water-wheel	W. W. Tyler	459,969	Sept. 22	2251	{ 565 566 }	56	1522
Water-wheel	J. P. Vinal	465,439	Dec. 15	2285	586	57	1589
Water-wheel bucket	W. G. Dodd	454,638	June 23	2224	573	55	1592
Water-wheel. Jet or impact	W. H. Ridgway	453,449	June 2	438	{ 112 113 }	55	1231
Water-wheel. Turbine	E. T. Diden	458,336	Aug. 25	2310	564	56	993
Water-wheel. Turbine	C. W. Hudson	462,256	Nov. 3	54	13	57	562
Water-wheel. Turbine	H. Zoelly	452,590	May 19	1855	{ 466 467 }	55	940
Watering apparatus	J. Sauer	466,187	Dec. 29	3502	{ 894 895 }	57	1842
Watering hogs. Apparatus for	G. F. Runnels	448,262	Mar. 17	1620	413	54	1444
Watering stock. Device for	C. E. Buckley	445,920	Feb. 3	659	161	54	641
Watering-trough	M. N. Bronse	446,628	Feb. 17	1827	451	54	867
Watering-trough	J. T. Thatcher	453,894	June 9	1093	286	55	1323
Watering-trough. Automatic stock	C. A. Yont	444,911	Jan. 20	1512	329	54	311
Watering-trough for stock	J. Allis	444,324	Jan. 6	537	139	54	107
Watering-trough. Stock	W. L. Magee	450,170	Apr. 14	768	195	55	156
Waterproofing and preserving textures and other materials	C. F. Hime and J. H. Noad	456,821	July 28	2443	56	490	
Waterproofing pulp and other fibrous articles. Composition for	F. E. Keyes	458,534	Aug. 25	2624	.....	56	1052
Wave force. Device for utilizing	W. Mulholland	458,060	Aug. 18	1853	483	56	899
Wave-motor	R. B. Davy	455,743	July 14	734	193	56	150
Wave-power	H. Commandoer	456,266	July 21	1524	{ 404 405 }	56	308
Wave-power	J. M. Dyer	460,371	Sept. 29	2877	718	56	1649
Wave-power motor	H. P. Holland	454,821	June 23	2508	645	55	1646
Wave-power motor	H. P. Holland	460,812	Oct. 6	432	519	57	86
Waxing thread. Wax-pot for use in machines for	O. H. Campbell	456,536	July 21	1969	519	56	392
Way-billing articles for shipment. Apparatus for	D. H. Thiel	447,922	Mar. 10	1072	269	54	1328
Weaner and udder-protector. Calif.	T. M. Helm	455,618	July 7	518	134	56	99
Weather-strip	L. D. Blackwood and M. A. Goff	463,886	Nov. 24	2659	693	57	1088
Weather-strip	W. F. Cunningham	454,994	June 30	2847	724	55	1718
Weather-strip	S. R. Deacon	463,755	Dec. 22	2788	712	57	1695
Weather-strip	G. A. Ennis and C. J. Westfall	457,851	Aug. 18	1514	394	56	835
Weather-strip	J. Fisher	444,523	Jan. 13	854	222	54	178
Weather-strip	C. D. Hartzell	459,109	Sept. 8	892	214	56	1246
Weather-strip	J. H. Hummel	446,520	Feb. 17	1675	409	54	857
Weather-strip	A. La Jeunesse	452,106	May 12	1068	270	55	784
Weather-strip	J. R. Long	451,562	May 5	177	43	55	613
Weather-strip	J. H. McIntire	446,609	Feb. 17	1796	444	54	881
Weather-strip	G. Poe and C. Angus	456,058	July 14	1203	317	56	237
Weather-strip	J. H. Reed	451,641	May 5	305	74	55	636
Weather-strip	W. C. Rockwell	448,997	Mar. 24	2800	708	54	1677
Weather-strip	N. Shidler	461,922	Oct. 27	2257	558	57	455
Weather-strip	C. S. Tingle	445,459	Jan. 27	2342	609	54	483
Weather-strip. Door	E. I. Church	459,943	Sept. 22	2217	558	56	1516
Weather-strip for car-doors	J. W. Brown	454,421	June 16	1863	{ 488 489 }	55	1520
Weather-strip for doors and windows	W. J. Lewin	463,060	Nov. 10	1326	343	57	818
Weather-strip for doors. Sliding	J. T. Brown and W. T. Garrett	465,338	Dec. 15	2125	544	57	1557
Weather-strip for freight-car doors	W. R. Betham	449,390	Mar. 31	3471	874	54	1809
Weather-stripping	W. H. Cosper	445,544	Feb. 3	24	6	54	516
Weaving. Warp-operating mechanism for cross	W. Talbot	453,714	June 9	851	220	55	1316
Weaving. Mechanism for cross	B. Haytock	457,117	Aug. 4	222	{ 73, 74 }	56	587
Web fabrics. Machine for guiding the edges of	L. Hollingworth	449,623	Mar. 31	3844	{ 962 963 }	54	1880
Web-severing machine. Rotary	J. L. Cox	465,427	Dec. 15	2264	521	57	1585
Web-severing machine. Rotary	J. L. Cox	465,428	Dec. 15	2266	521	57	1585
Wedge. Clamping	F. M. Gustin and A. P. Olson	466,016	Dec. 29	3237	823	57	1790
Weed and grass cutter	W. Walker	461,459	Oct. 20	1443	363	57	294
Weed-cutter for listed corn	E. Dimity and W. F. Griffin	464,819	Dec. 8	1251	313	57	1382
Weed-cutter. Self-cleaning	F. E. Lux	447,781	Mar. 10	826	205	54	1281
Weed-puller	W. K. Long	451,495	May 5	76	19	55	594
Weed-turner	J. McAvry	456,053	July 14	1197	315	56	236
Weeder. Lawn	R. F. Silliman	457,871	Aug. 18	1548	402	56	841
Weeding-machine	V. H. Hallock	444,609	Jan. 13	983	{ 255 256 }	54	203
Wet pile fabrics. Apparatus employed in cutting	O. Drey	450,692	Apr. 21	1626	{ 390 391 }	55	333

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Wet pile fabrics. Mechanism for cutting the floats of	G. A. J. Schott	464,734	Dec. 8	1129	280	57	1359
Weigher. Automatic grain	C. J. Hartley	463,743	Nov. 24	2434	638	57	1046
Weigher. Grain	C. H. Cooley	447,715	Mar. 3	701	175	54	1250
Weigher. Grain	C. H. Cooley and F. H. Richards	447,762	Mar. 10	788	195 196 197	54	1274
Weigher. Grain	A. J. Neville	465,025	Dec. 15	1610	410	57	1462
Weigher register. Grain	F. H. Richards	447,719	Mar. 3	706	176 177	54	1251
Weigher regulator. Grain	C. H. Cooley	447,721	Mar. 3	712	178	54	1252
Weigher. Regulator grain	F. H. Richards	447,354	Mar. 3	121	32 33 34	54	1141
Weighing and packing machine	G. D. Van Hoesen	447,385	Mar. 3	175	48	54	1151
Weighing and packing machine. Automatic	J. A. Ostenberg	446,266	Feb. 10	1268	311	54	762
Weighing and strength-testing machines. Counter-poising apparatus for	G. E. Rutter	451,955	May 12	789	200	55	736
Weighing apparatus. Liquid	J. P. Baldwin	446,844	Feb. 24	2171	541	54	965
Weighing-balance. Inclosed	A. Fries	452,371	May 19	1502	372	55	876
Weighing-beam	H. G. Benckmann	454,394	June 16	1817	475	55	1510
Weighing liquids. Device for	C. V. Klippert, L. J. Vogt, and H. L. Weiland	456,959	Aug. 4	59	14	56	544
Weighing-machine. Automatic	H. E. Snyser	449,276	Mar. 31	3237	819	54	1769
Weighing machine. Automatic grain	W. T. Barker	453,460	June 2	453	116	55	1234
Weighing machine. Automatic grain	H. Parrish	463,407	Nov. 17	1900	496 497	57	935
Weighing-machine. Coin-controlled	J. M. S. Blanvelt	457,981	Aug. 18	1737	456 457	56	876
Weighing mechanism. Grain	S. E. Brown	449,402	Mar. 31	3477	875	54	1811
Weighing or similar machine. Coin-freed	G. E. Rutter	454,529	June 23	2032	526 527	55	1559
Weight-power	L. Dedel	455,662	July 7	591	155	56	114
Weight-releasing device	E. B. Birge	463,026	Nov. 10	1275	331	57	808
Welding and swaging links. Die for	F. Krein and J. Flaig	445,346	Jan. 27	2182	565	54	452
Welding apparatus. Electric	M. W. Dewey	447,104	Feb. 24	2610	649	54	1046
Welding apparatus. Portable electric	E. E. Ries	444,855	Jan. 20	1410	367	54	292
Welding apparatus. Sliding clamp for electric	H. Lemp	465,866	Dec. 29	2961	756 757	57	1738
Welding by electricity	J. H. Bassler	456,540	July 21	1975	521	56	393
Welding compound	W. W. Brown and M. C. Reynolds	444,044	Jan. 6	96		54	22
Welding. Electric	H. Lemp	458,176	Aug. 25	2029	526	56	940
Welding. Electric	E. Thomson	444,926	Jan. 20	1535	394	54	315
Welding. Electric	E. Thomson	444,927	Jan. 20	1537	394	54	316
Welding. Electric	E. Thomson	444,928	Jan. 20	1539	395	54	316
Welding. Electric	E. Thomson	444,946	Jan. 20	1569	402	54	322
Welding. Electric	E. Thomson	449,836	Apr. 7	298	78	55	59
Welding. Electric	E. Thomson	451,345	Apr. 28	2651	656 657	55	539
Welding. Electric	E. Thomson	455,420	July 7	199	51	56	41
Welding-furnace. Reheating	W. B. Wright	461,155	Oct. 13	928	240	57	185
Welding links. Die for	J. C. Talianero	453,220	June 2	60	16	55	1160
Welding machine. Automatic electric	H. Lemp and C. G. Anderson	462,261	Nov. 3	60	15, 16	57	563
Welding machine. Metal	H. E. Fowler	450,666	Apr. 21	1592	381 382 383	55	327
Welding machine. Tube	J. T. Herschell	460,135	Sept. 29	2516	626	56	1579
Welding machines. Burr-preventer for electric	E. Thomson	449,357	Mar. 31	3391	854	54	1794
Welding metals electrically	C. L. Coffin	463,426	Nov. 17	2010	526	57	957
Welding. Method of and apparatus for electric	H. Lemp and L. M. Schmidt	446,974	Feb. 24	2398	597	54	1005
Welding. Method of and apparatus for electric	S. L. Wiegand	456,541	July 21	1976	521	56	393
Welding or working metals electrically	C. L. Coffin	462,207	Oct. 27	2688	676	57	537
Welding or working of metals. Electric	C. L. Coffin	463,427	Nov. 17	2011	526	57	958
Welding the ends of wire rods, &c.	J. H. Bevington	463,134	Nov. 17	1456	378	57	851
Welding tires, &c. Gage and holder for	S. H. Cawley	464,427	Dec. 1	644	158	57	1257
Welding tubing. Apparatus for	P. Patterson	444,569	Jan. 13	934	242	54	193
Well	J. O. Rice	447,646	Mar. 3	606	149	54	1232
Well bailers. Valve for oil	A. W. Knittel	453,488	June 2	492	127	55	1241
Well borer. Artesian	T. H. Logan	444,839	Jan. 20	1352	350	54	281
Well-boring apparatus	F. Gardner	455,037	June 30	2917	741 742	55	1731
Well-boring apparatus	L. B. Hart	457,713	Aug. 11	1274	329	56	780
Well-boring drills. Means for securing	J. Walp and C. F. Dauxdater	451,788	May 5	526	130	55	678
Well-boring machine	G. Pech	465,048	Dec. 15	1640	417	57	1467
Well-boring machine	C. F. Whipple	447,592	Mar. 3	525	128 129	54	1216
Well-drilling apparatus	A. J. Ross	459,309	Sept. 8	1190	289	56	1305
Well-drilling apparatus. Deep	W. Webber	463,880	Nov. 24	2651	691	57	1086
Well-drilling machine	A. C. Krassin and T. Boncher	452,878	May 26	2306	582 583	55	1037
Well-drilling machine	M. B. Miller	444,221	Jan. 6	390	97, 98	54	78
Well-drilling machine	W. Webber	446,588	Feb. 17	1770	437	54	876
Well-drilling machine	C. E. Wyman	457,552	Aug. 11	1032	266	56	733
Well. Flowing	H. F. Cook	459,826	Sept. 22	2034	510	56	1481
Well heater. Electric oil	C. W. and S. D. Robison	457,457	Aug. 11	882	228	56	704
Well-making machine	A. Cameron	461,903	Oct. 27	2222	549	57	449
Well-making machine	A. Cameron	461,904	Oct. 27	2223	549 550	57	449
Well packer. Oil	A. W. Newell	451,769	May 5	503	124	55	673
Well-sinking. Expansion-drill for	A. Cameron	449,613	Mar. 31	3821	958	54	1875
Well-sinking machine	A. Cameron	460,500	Sept. 29	3065	770	56	1624
Well-sinking machine	A. O. Hiscock	462,134	Oct. 27	2572	639	57	515
Well-sinking machinery	A. V. Jackson	454,870	June 30	2590	665	55	1669
Well-sinking tool	J. D. Stephenson	454,082	June 16	1359	354	55	1422
Well-strainer	A. D. Cook	455,307	July 7	17	4	56	6

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. t.	Vol.	Page.
Well tool. Deep.....	C. W. Robison.....	448,165	Mar. 10	1443	369	54	1402
Well. Tubular.....	A. Cameron and T. G. Chapman....	449,771	Apr. 7	197	50	55	40
Wells. Apparatus for removing paraffine from pipes of oil.	M. Thornton.....	445,100	Jan. 20	1804	466	54	368
Wells. Bull-wheel for oil.....	B. E. Wangaman.....	454,787	June 23	2439	627	55	1635
Wells. Device for removing broken piston-rods from	E. R. Bristol.....	450,502	Apr. 14	1300	318	55	256
Wells. Device for separating air in pipe-lines from Artesian	H. K. Goodrich.....	465,019	Dec. 15	1593	405	57	1459
Wells. Device for spraying oil from the tubing of oil.	H. F. Seybert.....	448,085	Mar. 10	1325	339	54	1278
Wells. Groove-cutting machine for oil or gas.....	J. L. Addison.....	449,459	Mar. 31	3576	901	54	1829
Wells. Means for and method of blowing off fluids from oil or gas	J. Heed.....	454,432	June 16	1885	492	55	1523
Wells. Means for sinking Artesian or tubular	S. S. Bolton.....	454,451	June 23	1912	499	55	1537
Wells. Sand-strainer for deep.....	J. H. King.....	447,882	Mar. 10	999	252	54	1314
Wells. Tool for straightening Artesian.....	S. F. Karnes and P. Nichols.....	451,274	Apr. 28	2557	630	55	520
Welt-making machine.....	G. F. Dunn.....	458,046	Aug. 18	1835	478	56	895
Wheat-drill.....	O. L. Peterson.....	445,076	Jan. 20	1768	455 456	54	361
Wheat-heater.....	A. H. Brockman.....	445,536	Feb. 3	10	3	54	513
Wheel:							
See Balance-wheel.	Plow-wheel.						
Bicycle-wheel.	Polishing-wheel.						
Car-wheel.	Propelling-wheel.						
Chain-wheel.	Railway trolley-wheel.						
Cog-wheel.	Sprocket-wheel.						
Cogged-wheel.	Stuffing-wheel.						
Current-wheel.	Traction-wheel.						
Dental-engine driv-	Trolley-wheel.						
ing-wheel.	Vehicle-wheel.						
Fifth-wheel.	Velocipede-wheel.						
Gear-wheel.	Wagon-wheel.						
Harvester-wheel.	Water-wheel.						
Metallic wheel.	Water-power wheel.						
Paddle-wheel.	Wind-wheel.						
Wheel.....	W. E. Bartlett. (Reissue).....	11,216	Dec. 29	3708	946	57	1881
Wheel.....	J. S. Bretz.....	457,861	Aug. 18	1530	398	56	838
Wheel.....	E. Children.....	465,692	Dec. 22	2699	688	57	1677
Wheel.....	F. P. Circle.....	463,740	Nov. 24	2430	637	57	1045
Wheel.....	L. S. Crittenden.....	457,813	Aug. 18	1446	376	56	822
Wheel.....	C. T. Cummins.....	455,277	June 30	3336	843	55	1813
Wheel.....	S. Elliott.....	444,485	Jan. 13	792	206	54	166
Wheel.....	E. J. Fisk.....	462,247	Nov. 3	43	11	57	560
Wheel.....	B. H. Gedge.....	444,430	Jan. 13	704	184	54	147
Wheel.....	B. H. Gedge.....	458,573	Sept. 1	40	8	56	1073
Wheel.....	H. C. Goodrich.....	455,426	July 7	207	53	56	42
Wheel.....	H. C. Goodrich.....	456,218	July 21	1441	382	56	292
Wheel.....	E. G. Latta.....	457,494	Aug. 11	953	241 242	56	717
Wheel.....	A. C. Mather.....	452,047	May 12	953	243	55	765
Wheel.....	J. G. McAlpine.....	447,893	Mar. 10	1018	256	54	1318
Wheel.....	M. Michels and J. Pauly.....	460,211	Sept. 29	2624	655	56	1601
Wheel.....	J. Pluck.....	457,66~	Aug. 11	1207	309	56	766
Wheel.....	A. Snoddy.....	447,797	Mar. 10	869	216	54	1289
Wheel.....	W. N. Stroud. (Reissue).....	11,168	May 26	2848	714	55	1138
Wheel.....	E. Takken.....	464,837	Dec. 8	1278	321	57	1388
Wheel.....	A. P. Terry.....	453,251	June 2	111	31	55	1169
Wheel.....	J. Thierry.....	463,877	Nov. 24	2648	690	57	1086
Wheel.....	J. Trusty.....	450,540	Apr. 14	1346	331	55	265
Wheel.....	D. S. West.....	454,315	June 16	1696	443	55	1488
Wheel and rail brake mechanism. Combined	J. Stephenson.....	450,749	Apr. 21	1876	459	55	380
Wheel-brake.....	J. Stephenson.....	450,850	Apr. 21	1877	459	55	380
Wheel-holding appliance. Wagon-	W. R. Exum.....	454,680	June 23	2284	586	55	1604
Wheel-lubricator.....	T. J. Robinson.....	452,681	May 19	1996	499	55	968
Wheel-rim. Hollow.....	A. H. Overman.....	446,189	Feb. 10	1121	274	54	734
Wheel scotching device. Cart-	E. Murgatroyd.....	449,269	Mar. 31	3222	813	54	1766
Wheel-wrench.....	L. D. Smith.....	448,553	Mar. 17	2086	523	54	1534
Wheel wrench. Vehicle-	E. H. Steltz.....	455,694	July 7	638	168	56	123
Wheels. Grease-box for vehicle.....	W. R. Doolin.....	456,024	July 14	1163	304	56	229
Wheels. Making metal.....	J. A. Stillwell.....	463,083	Nov. 10	1365	353	57	825
Wheels. Manufacturing metal.....	E. W. Wickey.....	451,545	May 5	149	37	55	608
Wheels. Mold for metallic.....	C. D. Cannon.....	465,016	Dec. 15	1587	404	57	1458
Wheels. Sand-band for vehicle.....	S. J. Gelusha.....	457,511	Aug. 11	972	248	56	721
Wheels. Spindle and box for.....	J. Blessinger.....	453,960	June 9	1181	308	55	1382
Wheels. Tying up metal.....	J. R. Little.....	458,057	Aug. 18	1849	482	56	898
Wheelbarrow.....	F. H. Bird.....	466,001	Dec. 29	3218	819	57	1786
Wheelbarrow.....	A. Hare.....	463,897	Nov. 24	2675	697	57	1091
Wheelbarrow.....	W. Haslup.....	465,798	Dec. 22	2847	729	57	1707
Wheelbarrow.....	S. Merrifield.....	458,182	Aug. 25	2037	528	56	941
Whiffletree.....	B. B. Allen.....	448,105	Mar. 10	1352	316	54	1383
Whiffletree.....	J. M. Blondell.....	449,647	Mar. 31	3880	971	54	1887
Whiffletree.....	J. Caldwell.....	455,918	July 14	1000	260	56	200
Whiffletree.....	L. S. Platau. (Reissue).....	11,157	Apr. 21	2127	524	55	427
Whiffletree.....	C. C. Forncrook.....	457,046	Aug. 4	169	42	56	566
Whiffletree.....	J. B. Goudry.....	465,130	Dec. 15	1795	454	57	1495
Whiffletree.....	J. and P. J. Gutzler.....	458,454	Aug. 25	2493	607	56	1026
Whiffletree.....	E. Haiman.....	453,146	May 26	2758	694	55	1123
Whiffletree.....	C. F. Hublein.....	459,911	Sept. 22	2177	547	56	1508
Whiffletree.....	W. H. Shall.....	446,156	Feb. 10	1061	261	54	724
Whiffletree.....	N. P. Steffenson.....	446,615	Feb. 17	1807	447	54	883
Whiffletree.....	N. N. Van Pelt.....	461,652	Oct. 20	1808	445	57	359
Whiffletree attachment. Vehicle	W. F. Henry.....	460,823	Oct. 6	450	114	57	90
Whiffletree attachment. Vehicle	I. N. West.....	460,356	Sept. 29	2857	712	56	1645
Whiffletree-clip.....	J. K. Hendrick and M. J. Hewlett..	452,120	May 12	1093	278	55	788
Whiffletree clip and hook.....	R. L. Kirby.....	461,615	Oct. 20	1747	430	57	348

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Whiffletree-coupling	J. J. Kocher	444,646	Jan. 13	1039	270	54	213
Whiffletree-coupling	W. A. Schleicher	455,119	June 30	3063	778	55	1760
Whiffletree-hook	S. Bailey	448,193	Mar. 17	1505	384	54	1423
Whiffletree-hook	C. W. Blackburn	462,195	Oct. 27	2670	668	57	533
Whiffletree-hook	W. W. Chandler	444,420	Jan. 13	693	180	54	145
Whiffletree-hook	J. R. Davis	445,804	Feb. 3	499	120	54	609
Whiffletree-hook	E. W. Fish and C. C. Beebe	457,312	Aug. 4	616	162	56	647
Whiffletree-hook	A. C. French	452,668	May 19	1976	496	55	964
Whiffletree-hook	W. H. Gibbs	457,900	Aug. 18	1595	415	56	849
Whiffletree-hook	J. L. Mussina	461,959	Oct. 27	2311	573	57	465
Whiffletree-hook	A. B. Neiman	460,755	Oct. 6	354	87	57	69
Whiffletree-hook	P. H. Thompson	455,259	June 30	3285	832	55	1802
Whiffletree-hook	L. E. Waterman	454,413	June 16	1857	485	55	1518
Whip	E. R. Cowles	451,028	Apr. 28	2156	532	55	442
Whip	F. Grant	448,650	Mar. 24	2263	568	54	1574
Whip	W. E. Jewell	462,711	Nov. 10	778	203	57	709
Whip	H. Mullen	444,250	Jan. 6	434	109	54	85
Whip	W. A. Underwood	460,456	Sept. 29	2990	748	56	1670
Whip	G. E. Whipple	452,327	May 12	1433	354	55	852
Whip-button	J. E. Hayward	456,144	July 21	1329	352	56	271
Whip-socket	A. W. Hall	454,624	June 23	2202	567	55	1588
Whip-socket	H. W. Jones	462,559	Nov. 3	538	131	57	654
Whip-socket	H. E. Leeman	462,493	Nov. 3	426	104	57	632
Whip-socket	E. D. Odell and A. Jones	445,126	Jan. 20	1841	476	54	375
Whips. Manufacture of	G. M. Weidenhamer	464,210	Dec. 1	320	78	57	1194
Whips. Stalk-splitting machine for	T. W. Reed	454,497	June 23	1982	515	55	1550
Whisky. Apparatus for treating.	F. Madlener	444,152	Jan. 6	284	68	54	58
Whistle. Steam	W. T. Crane	448,127	Mar. 10	1386	354	54	1390
Whistle. Steam	R. S. Gillespie	451,040	Apr. 28	2170	536	55	444
Whiting. Composition of matter for	G. A. Casselman	454,152	June 16	1462	355	55	1443
Wick. Lamp	R. P. Ambler	463,961	Nov. 24	2773	719	57	1111
Wick. Lamp	A. E. Harris	463,277	Nov. 17	1681	439	57	894
Wick-raiser	T. Hipwell	457,588	Aug. 11	1090	278	56	745
Wick-raiser	B. P. Luce	450,106	Apr. 7	675	171	55	132
Wick-raiser	J. B. Marston and J. W. Feeny	461,031	Oct. 13	759	194 195	57	154
Wick-trimmer	C. R. Burr	465,125	Dec. 15	1786	451	57	1493
Wick-trimmer	V. Morgan	465,384	Dec. 15	2206	566	57	1572
Wick-trimmer	C. Roseberry	448,789	Mar. 24	2487	622	54	1617
Wick-trimmer	R. H. Scott	452,289	May 12	1358	338	55	839
Wick-trimmer	A. Withmar	458,439	Aug. 25	2475	602	56	1023
Wick-tube for lamps or oil-stoves	D. L. Whittingham	445,789	Feb. 3	454	113	54	600
Wig-frame	H. A. Emery	464,559	Dec. 8	848	209	57	1305
Wind-engine	O. W. Benster	463,092	Nov. 10	1378	356	57	827
Wind-engine	M. C. Chapman	447,066	Feb. 24	2559	635 636	54	1035
Wind-engine	S. Griswold	455,201	June 30	3204	813	55	1787
Wind-engine	D. Hall	457,272	Aug. 4	547	143 144	56	634
Wind-engine	D. Hall	457,273	Aug. 4	549	144	56	634
Wind-engine	I. A. Jefferson	464,364	Dec. 1	563	138	57	1241
Wind-engine	S. E. Rusk	458,070	Aug. 18	1867	486 487	56	902
Wind-engine. Vaneless	P. Bergman	463,025	Nov. 10	1273	330	57	807
Wind-instruments. Month-piece for	G. W. Conover	452,448	May 19	1633	407	55	900
Wind-motor	G. W. Brown	464,607	Dec. 8	916	225 226	57	1320
Wind-wheel	M. J. Althouse	456,787	July 28	2388	629	56	474
Wind-wheel	M. Irrgang	450,411	Apr. 14	1168	285	55	229
Wind-wheel	J. M. Lowe	446,783	Feb. 17	2062	514	54	934
Wind-wheel	F. Miller	449,489	Mar. 31	3621	911	54	1839
Wind-wheel	M. C. Robbins	449,589	Mar. 31	3768	946	54	1866
Wind-wheel	C. R. Sundstrom	464,680	Dec. 8	1035	259	57	1342
Winding and spinning machines. Faller for the stop-motion of	V. Royle	452,066	May 12	996	252	55	771
Winding-drum	E. N. Wickes	448,868	Mar. 24	2613	656	54	1641
Winding machine. Bobbin or cop	J. T. Byrne	457,846	Aug. 18	1501	390	56	833
Winding machine. Warp	C. E. Hill	459,784	Sept. 22	1966	495	56	1467
Winding machine. Yarn	W. D. Huse	463,423	Nov. 17	1923	502	57	940
Winding machine. Yarn or thread	J. W. Foster	459,039	Sept. 8	775	188	56	1324
Winding yarn into cops. Machine for	J. D. Whyte	452,927	Sept. 1	594	146	56	1180
Windlass	J. D. Daniel	447,764	Mar. 10	795	197	54	1276
Windlass	J. S. Jones	463,057	Nov. 10	1322	342	57	817
Windlass and capstan. Combined ship's	E. H. Whitney	446,825	Feb. 17	2134	530	54	949
Windlass. Ship	E. H. Whitney	448,828	Mar. 24	2541	638	54	1027
Windmill	J. Q. Adams	454,196	June 16	1522	400	55	1454
Windmill	D. Bird	445,034	Jan. 20	1694	435	54	347
Windmill	J. Burnham	456,549	July 28	1990	525	56	409
Windmill	G. S. Chapman	444,793	Jan. 13	1270	329	54	256
Windmill	S. W. Conrad and J. H. Lake	460,430	Sept. 29	2950	738	56	1663
Windmill	A. J. Corcoran	450,736	Apr. 21	1681	407	55	344
Windmill	W. M. Craig	446,630	Feb. 17	1829	452	54	887
Windmill	E. A. Dana	446,512	Feb. 17	1661	405	54	854
Windmill	F. H. Everts	465,172	Dec. 15	1859	472	57	1507
Windmill	J. W. Gunnison	459,962	Sept. 22	2241	563	56	1520
Windmill	J. Hawkins	459,184	Sept. 8	1007	246	56	1267
Windmill	J. Hosey	464,224	Dec. 1	343	83	57	1198
Windmill	E. C. Jewsbury	450,314	Apr. 14	1007	249	55	200
Windmill	B. Jones	455,720	July 7	686	181	56	132
Windmill	E. L. Kenoyer	448,348	Mar. 17	1783	450 451	54	1476
Windmill	H. C. Lyman	457,284	Aug. 4	564	150	56	637
Windmill	M. R. Martin	462,949	Nov. 10	1167	302 303	57	785

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Windmill	R. Monday	454,372	June 16	1788	466	55	1504
Windmill	W. D. Nichols	465,583	Dec. 22	2533	645	57	1645
Windmill	H. Noone	449,744	Apr. 7	156	38	55	31
Windmill	W. Palmer, Jr.	445,573	Feb. 3	83	19, 20	54	527
Windmill	T. Pepper	455,858	July 14	908	238	56	183
Windmill	T. O. Perry	451,225	Apr. 28	2464	{ 609 610 }	55	501
Windmill	M. S. Pires	458,766	Sept. 1	327	79	56	1128
Windmill	J. M. Pollard	454,664	June 23	2261	581	55	1599
Windmill	R. B. Sin Clair	457,168	Aug. 4	358	91, 92	56	602
Windmill	J. R. Smith	465,681	Dec. 22	2683	681	57	1674
Windmill	E. L. Stoner	457,384	Aug. 11	777	{ 199 200 }	56	684
Windmill	C. H. Van Deusen	458,602	Sept. 1	82	19	56	1082
Windmill	A. Van Ness	444,262	Jan. 6	449	{ 113 114 }	54	89
Windmill	C. O. Weidman	446,307	Feb. 10	1335	325	54	776
Windmill-gearing	G. M. Allen	463,978	Nov. 24	2801	727	57	1116
Windmill-gearing	G. M. Allen	463,979	Nov. 24	2805	727	57	1116
Windmill-gearing	G. M. Allen	463,980	Nov. 24	2805	728	57	1116
Windmill-gearing	W. C. Westaway	455,423	July 7	203	52	56	42
Windmill-governor	E. P. Downing	464,064	Dec. 1	87	22	57	1154
Windmill. Power-	C. O. Sylvester	454,412	June 16	1856	485	55	1518
Windmill pump attachment.	U. Yoder	447,096	Feb. 24	2598	645	54	1044
Windmill-regulator	C. Barnes	456,264	July 21	1522	404	56	308
Windmill-regulator	H. P. Kurtz	461,185	Oct. 13	979	251	57	194
Windmill-regulator	W. L. Matthews	448,531	Mar. 17	2056	514	54	1528
Windmill-regulator	H. B. Niebel	459,333	Sept. 8	1234	303	56	1313
Windmill-regulator	C. and W. Silvester	446,627	Feb. 17	1825	451	54	886
Windmill-regulator	D. C. Stover and O. J. Ziegler	447,139	Feb. 24	2698	669	54	1060
Windmill-regulator	E. B. Wilson	459,982	Sept. 22	2269	570	56	1525
Windmill-regulator. Automatic.	D. E. Shrauger and W. Fulton	459,795	Sept. 22	1981	499	56	1470
Windmill-regulator. Automatic.	J. E. Van Schaick	458,926	Sept. 1	592	145	56	1180
Windmill-regulator. Hydraulic.	A. and C. A. Church	458,518	Aug. 25	2604	634	56	1048
Windmill-shafting. Bearing-box for	W. H. Taylor	453,221	June 2	62	16	55	1160
Windmill-tower	H. C. Addis	460,337	Oct. 6	465	118	57	93
Windmill-tower	J. Detlef	456,193	July 21	1407	373	56	287
Windmill-tower	L. W. Noyes	457,820	Aug. 18	1459	380	56	824
Windmill-tower	H. Robinson	446,744	Feb. 17	2011	501	54	923
Windmill-tower	J. G. Walton	465,079	Dec. 15	1696	431	57	1477
Windmills. Equalizing device for.	E. L. Kenoyer	455,255	June 30	3280	831	55	1602
Windmills. Pump-regulator for	D. A. Ferrier	459,275	Sept. 8	1141	279	56	1295
Windmills. Pumping attachment for	C. F. West	464,446	Dec. 1	673	165	57	1263
Window	J. Bullinger	456,136	July 21	1318	347	56	269
Window	G. H. Couch	458,222	Aug. 25	2108	547	56	955
Window	O. M. Edwards. (Reissue)	11,154	Mar. 24	2954	748	54	1708
Window	F. V. and M. A. Greene	458,392	Aug. 25	2407	586	56	1010
Window	A. Hitt	452,409	May 19	1569	389	55	888
Window	G. R. Roth	447,362	Mar. 3	138	38	54	1144
Window	V. Schirmer	460,449	Sept. 29	2974	744	56	1667
Window	S. C. Taylor	445,384	Jan. 27	2231	578	54	461
Window	G. Wicks	450,752	Apr. 21	1705	413	55	319
Window	A. O. Wiklund	452,557	May 19	1806	454	55	931
Window	J. Wilson	458,929	Sept. 1	598	146	56	1181
Window-bead	R. W. Waldrop	458,082	Aug. 18	1881	496	56	905
Window-bead fastener	J. Lowendahl	444,840	Jan. 20	1354	351	54	281
Window-chair	E. T. Steen	457,882	Aug. 18	1569	407	56	845
Window-chair and step-ladder. Combined	M. B. Blazer	459,571	Sept. 15	1622	407	56	1396
Window-cleaner	J. O. Culver	456,356	July 21	1668	440	56	335
Window-cleaner	J. F. Pearson	465,067	Dec. 15	1670	425	57	1472
Window-cleaner	C. R. A. and P. A. Wright	462,905	Nov. 10	1094	284	57	772
Window-cleaning chair	A. Barnhart	457,695	Aug. 11	1246	322	56	774
Window-fastener	O. R. Chapin	453,178	June 2	2	1	55	1149
Window-frame	C. Dahlem	452,694	May 19	2020	505	55	973
Window-frame	J. B. Hartman	455,205	June 30	3210	815	55	1789
Window-frame	V. R. Koontz	451,826	May 5	581	143	55	690
Window-frame	F. Mesker and T. O. Arbegust	448,355	Mar. 17	1791	452	54	1477
Window-frame	F. Mesker and T. O. Arbegust	450,081	Apr. 7	639	{ 160 161 162 }	55	125
Window-frame	F. Mesker and T. O. Arbegust	450,082	Apr. 7	640	{ 161 162 }	55	125
Window-frame	F. Mesker and T. O. Arbegust	451,874	May 5	650	163	55	702
Window-frame	F. Mesker and T. O. Arbegust	451,875	May 5	651	163	55	702
Window-frame	F. Mesker and T. O. Arbegust	451,876	May 5	651	164	55	703
Window-frame	F. Mesker and T. O. Arbegust	451,877	May 5	652	164	55	703
Window-frame construction	A. Schmidt	462,998	Nov. 10	1234	321	57	799
Window-frames. Machine for the manufacture of.	F. Mesker and T. O. Arbegust	460,480	Sept. 29	3031	739	56	1678
Window or door button	J. Booth	457,698	Aug. 11	1250	323	56	775
Window ornament and ventilator. Combined	J. F. Dingee	462,474	Nov. 3	403	99	57	627
Window pane or sign. Flexible	A. M. Rosebrugh	465,890	Dec. 23	3014	771	57	1748
Window-rack for flower-pots. Wire	C. Galle	463,273	Nov. 17	1679	438	57	893
Window-scaffold	H. R. Van Eps	459,604	Sept. 15	1678	419	56	1406
Window-screen	A. Gehwald	447,309	Mar. 3	43	11	54	1125
Window-screen	C. F. J. Behr	450,553	Apr. 14	1364	337	55	269
Window-screen	C. H. Benoit and A. Pillot	447,423	Mar. 3	244	62	54	1163
Window-screen	B. H. Dodd	450,792	Apr. 21	1772	431	55	361
Window-screen	O. F. Heartwell, Jr	457,155	Aug. 4	341	87	56	599
Window-screen	J. Knowles	448,965	Mar. 24	2751	694	54	1668
Window-screen	G. W. Lincoln	465,595	Dec. 22	2553	{ 650 651 }	57	1649
Window-screen	J. Starkey	463,465	Nov. 17	1982	516	57	952
Window-screen	H. N. Swartz	444,734	Jan. 13	1188	307	54	241
Window-screen	F. Walker	448,467	Mar. 17	1964	494	54	1510
Window-screen. Adjustable	L. R. Pomeroy	444,409	Jan. 6	670	174	51	132

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Window-screen frame	J. B. Phillips	445,026	Jan. 20	1684	433	54	345
Window-screen. Rolling	L. T. Wilson	446,242	Feb. 10	1232	301	54	756
Window shelf and bracket. Combined	J. B. Smiley	456,443	July 21	1819	481	56	363
Window. Show	B. B. Van Derveer	463,848	Nov. 24	2588	674	57	1076
Window-slats. Operating-bar for	G. H. Moll	457,427	Aug. 11	834	216	56	696
Window-stop	H. Z. Coles	464,630	Dec. 8	955	235	57	1327
Windows. Stop-bead for	W. Bruner and E. W. Knemeyer	458,095	Aug. 18	1904	495	56	910
Window. Ventilating	H. Harrison	451,003	Apr. 21	2116	{ 521 522 }	55	426
Window-ventilator	P. A. Sanguinetti	450,256	Apr. 14	919	227	55	183
Window-ventilator	A. P. White	462,368	Nov. 3	241	59	57	596
Window-washer	J. W. Dixon	448,758	Mar. 24	2440	610	54	1608
Windows. Magnetic attachment for	T. N. Sterry	451,003	May 5	238	57	55	625
Windrower	F. L. Boals	458,693	Aug. 18	1909	495	56	910
Wines. Manufacturing sparkling	W. Gerbel	463,421	Nov. 17	1919	501	57	939
Winker attachment	M. Sansoucy	449,497	Mar. 31	3631	914	54	1841
Winker fork	E. A. Stephens	445,736	Feb. 3	363	93	54	584
Winnowing apparatus. Centrifugal	O. Sundgren	455,977	July 14	1086	285	56	215
Winnowing mill	C. Wendel	460,274	Sept. 29	2726	679	56	1620
Wire-annealing apparatus	J. Coffin	451,221	Apr. 28	2458	607	55	499
Wire. Apparatus for treating	W. L. Hayes and J. H. Konig	465,700	Dec. 22	2707	{ 690 691 }	57	1679
Wire-cable machine	H. B. Cobb	452,517	May 19	1744	439	55	919
Wire-clamp	R. M. Jones	452,185	May 12	1204	305	55	809
Wire-cloth	J. W. Littlefield	450,165	Apr. 14	764	193	55	155
Wire-cloth-drying apparatus	P. L. Salmon	448,888	Mar. 24	2636	662	54	1645
Wire-coating apparatus	J. Coffin	451,220	Apr. 28	2454	{ 606 607 }	55	499
Wire-coiling machine	C. A. Hart	456,512	July 21	1926	{ 509 510 }	56	383
Wire-coiling reel	J. McIlvried	452,889	May 26	2330	{ 588 589 }	55	1041
Wire-covering machine	M. D. Liddell	463,389	Nov. 17	1876	489	57	930
Wire-covering machine	G. Lisenard	445,120	Jan. 20	1831	{ 474 475 }	54	373
Wire-covering machine	J. McCahey	445,598	Feb. 3	122	31, 32	54	535
Wire-covering machine	J. McCahey	455,970	July 14	1078	282	56	213
Wire-cutter	O. Arnold	447,999	Mar. 10	1202	305	54	1352
Wire-cutter	F. D. Knight and G. E. Whittaker	457,878	Aug. 18	1560	405	56	843
Wire-cutter	H. K. Porter	444,541	Jan. 13	883	229	54	184
Wire. Die for cutting off and pointing pieces of	C. D. Rogers	464,466	Dec. 1	701	{ 171 172 }	57	1268
Wire. Drawing	S. L. Mershon	460,726	Oct. 6	312		57	61
Wire-drawing machine	J. F. Ellis	452,837	May 26	2245	{ 563 564 }	55	1025
Wire-drawing machine	G. F. Evans	448,214	Mar. 17	1539	394	54	1429
Wire-drawing machine	G. F. Evans	448,215	Mar. 17	1540	394	54	1429
Wire-drawing machine	J. and W. Jolly	451,936	May 12	762	193	55	730
Wire fabric for fire-proof structures	M. F. McCarthy	460,214	Sept. 29	2627	656	56	1601
Wire fabric for mats	A. M. Reeves	448,489	Mar. 17	2000	501	54	1516
Wire fabric. Guide for weaving coiled	A. H. Frost	464,693	Dec. 8	1062	264	57	1346
Wire fabric. Machine for weaving coiled	C. Kehr	463,993	Nov. 24	2828	{ 733 734 }	57	1120
Wire fabric. Machine for weaving coiled	C. Kehr	464,939	Dec. 8	1417	{ 357 358 }	57	1415
Wire fabric. Machine for weaving coiled	C. Kehr	464,940	Dec. 8	1426	{ 358 359 }	57	1417
Wire-fabric machine. Netted	T. M. Conner	459,936	Sept. 22	2196	552	56	1511
Wire fabrics. Apparatus for weaving coiled	C. O. White and M. B. Lloyd	461,695	Oct. 20	1878	{ 405 406 }	57	373
Wire fastener and tightener	C. M. Kiler	445,330	Jan. 27	2157	559	54	447
Wire-feeding device	J. S. Blackburn	463,935	Nov. 24	2741	711	57	1103
Wire for cards. Making	W. Walton	457,038	Aug. 4	158	38, 39	56	564
Wire frame	C. L. Betts	445,155	Jan. 27	1902	491	54	396
Wire-gate	F. Manning	450,171	Apr. 14	769	195	55	156
Wire-grasping tool	W. E. Treon	457,858	Aug. 18	1524	396	56	837
Wire-hanger	C. A. Jacobs	463,756	Nov. 24	2455	642	57	1049
Wire hanger. Overhead	C. A. Lieb	461,582	Oct. 20	1693	414	57	339
Wire hook and hanger	R. Gorton	451,122	Apr. 28	2282	565	55	468
Wire-looping tool	L. S. Platau	460,916	Oct. 6	592	150	57	115
Wire. Machine for laying and spooling	G. B. Johnson and J. O. Hale	450,022	Apr. 7	553	138	55	107
Wire. Machine for making tools from	E. Buell	463,826	Nov. 24	2550	665	57	1068
Wire. Machine for reeling barbed	H. C. Hamilton	464,965	Dec. 15	1483	373	57	1439
Wire. Making plated	C. R. Smith	448,594	Mar. 17	2155	539	54	1547
Wire. Making seamless plated	I. F. Peck	449,428	Mar. 31	3526	888	54	1820
Wire. Manufacturing seamless gold-plated	C. R. Smith	449,183	Mar. 31	3090	779	54	1741
Wire. Manufacturing seamless hollow	C. R. Smith	449,182	Mar. 31	3088	779	54	1741
Wire mat	J. E. Emerson	462,217	Oct. 27	2707	682	57	540
Wire mat	J. E. Emerson and T. Midgley	462,941	Nov. 10	1159	300	57	783
Wire mat	B. Seattles	452,923	May 26	2387	604	55	1051
Wire mat. Woven	S. Rogers	463,321	Nov. 17	1752	459	57	907
Wire-nail machine	A. M. Beauchamp	456,789	July 28	2392	630	56	480
Wire nails and machine for making the same	H. Campbell	450,990	Apr. 21	2094	{ 516 517 }	55	421
Wire netting	H. Beck	451,315	Apr. 28	2611	644	55	531
Wire. Plated	G. F. A. Knight	460,750	Oct. 6	349	85	57	69
Wire. Producing seamless compound	L. L. Burdon	446,619	Feb. 17	1812	448	54	884
Wire-reel	G. E. Dixon	444,314	Jan. 6	522	136	54	105
Wire-reel	J. L. Hodson	459,750	Sept. 22	1917	483	56	1458
Wire-reel	F. Krohe	456,577	July 28	2031	537	56	412
Wire-reel	C. J. Preston	464,082	Dec. 1	115	28, 29	57	1159
Wire-reel	J. M. Robinson	465,537	Dec. 22	2461	627	57	1631
Wire-reel	S. Trumpy	459,186	Sept. 8	1008	246	56	1268
Wire-reel	E. A. Vannatta	446,487	Feb. 17	1620	397	54	847

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Wire reel and stretcher	G. E. Dixon	456,985	Aug. 4	93	23	56	551
Wire reel. Barbed.....	J. Beresford and J. P. Bedson	453,139	May 26	2743	{ 691 692 621 }	55	1121
Wire. Reel for paying off	J. Coffin	462,091	Oct. 27	2496	{ 621 621 }	57	500
Wire. Reel for winding and unwinding	D. Grove	444,219	Jan. 6	388	96	54	77
Wire-rod reel	T. V. Allis	458,760	Sept. 1	330	78	56	1126
Wire rods. Device for coiling	J. A. Tatlo	451,081	Apr. 28	2221	549	55	455
Wire rods. Manufacture of	C. W. Bildt	459,924	Sept. 22	2193	551	56	1511
Wire rods. Treating	C. W. Bildt	459,903	Sept. 22	2168	545	56	1506
Wire-rolling machine	L. Goddu	451,001	Apr. 21	2113	521	55	426
Wire-rope machine	J. Wilson	417,392	Mar. 3	192	50	54	1154
Wire rope. Making clamps for	P. Yorke	418,904	Mar. 24	2662	668	54	1650
Wire. Seamless compound gold and silver	L. L. Burdon	446,618	Feb. 17	1811	448	54	883
Wire. Seamless plated	G. U. Meyer	445,814	Feb. 3	509	122	54	611
Wire-shears	M. Ranghtigan	451,601	May 5	235	56	55	624
Wire-splicer and spiral-spring winder	J. D. Van Dyke	450,203	Apr. 14	821	206	55	166
Wire-stapling machine	W. E. Harper	445,139	Jan. 20	1862	{ 482 483 484 }	54	379
Wire-stapling machine	W. E. Harper	445,140	Jan. 20	1866	{ 483 484 484 }	54	380
Wire-stapling machine	H. C. Horr	447,428	Mar. 3	251	63, 64	54	1165
Wire strands. Mechanism for forming	G. P. Rishel	453,066	May 26	2622	{ 662 663 }	55	1097
Wire-stretcher	D. Ball	444,036	Jan. 6	86	23	54	20
Wire-stretcher	J. O. Bigham	455,383	July 7	138	35	56	30
Wire-stretcher	C. H. Black	463,475	Nov. 17	1996	522	57	955
Wire-stretcher	R. C. Bolon	459,033	Sept. 8	763	185	56	1322
Wire-stretcher	J. B. Cleveland	448,635	Mar. 24	2240	562	54	1570
Wire-stretcher	W. J. and E. M. Garrett	461,545	Oct. 20	1638	400	57	328
Wire-stretcher	W. R. Hayden	402,128	Oct. 27	2566	637	57	513
Wire-stretcher	T. Kennedy	450,625	Apr. 21	1489	366	55	300
Wire-stretcher	J. W. Peterson	460,885	Oct. 6	542	136	57	107
Wire-stretcher	F. O. Reed	444,075	Jan. 6	153	38	54	33
Wire-stretcher	M. J. Ridder and V. Hartmann	446,790	Feb. 17	2074	517	54	936
Wire-stretcher	M. Sallberg	454,988	June 30	2828	719	55	1714
Wire-stretcher	A. W. Springer and J. T. Jackson	449,808	Apr. 7	252	64	55	50
Wire-stretcher	J. C. Thompson	454,670	June 23	2270	562	55	1601
Wire-stretcher	A. Van Wie	465,399	Dec. 15	2228	571	57	1577
Wire-stretcher	G. W. Warner	458,720	Sept. 1	264	63	56	1116
Wire-stretcher	C. W. West	457,943	Aug. 18	1677	439	56	865
Wire-stretcher	J. H. Wilson	465,105	Dec. 15	1750	443	57	1487
Wire-stretcher	E. Woodward	457,469	Aug. 11	899	232	56	707
Wire-stretcher	G. W. Wright	464,516	Dec. 8	830	204	57	1302
Wire-stretcher and tension device	J. B. Cleveland	459,392	Sept. 15	1338	335	56	1342
Wire suspension-hook	C. H. Thurston	454,891	June 30	2634	675	55	1677
Wire-swaging machine	W. H. Dayton	460,566	Oct. 6	35	9	57	9
Wire systems. Conductor for three	E. H. Johnson	462,489	Nov. 3	421	103	57	631
Wire-tightener	J. L. Buckingham	453,106	May 26	2696	679	55	1113
Wire-tightener	M. Eckley	465,169	Dec. 15	1854	470	57	1506
Wire-tightener	L. S. Flatau. (Reissue)	11,201	Nov. 3	731	189	57	692
Wire-tightener	E. F. Miller	446,688	Feb. 17	1926	480	54	905
Wire-tightener	J. N. Parker	447,436	Mar. 3	270	68	54	1169
Wire-tightener	R. E. Poindexter	462,411	Nov. 3	313	77, 78	57	610
Wire-tightener and loop-former	W. Tibbals	464,534	Dec. 8	816	201	57	1300
Wire to lengths. Machine for cutting	N. C. Stiles	458,780	Sept. 1	350	85	56	1132
Wire. Trundler for spooled	C. R. Smith	460,894	Oct. 6	558	141	57	109
Wire-twisting tool	E. Beals	444,808	Jan. 20	1298	337	54	271
Wire-twisting tool	E. G. Hoffmann	450,671	Apr. 21	1597	384	55	328
Wire-unwinding device. Barbed	S. H. Macy	461,118	Oct. 13	873	225	57	175
Wire-winding device. Barb	F. C. Meyer	465,281	Dec. 15	2029	518	57	1539
Wire-winding tool	D. Fraser	464,279	Dec. 1	438	105	57	1218
Wire with other metal. Apparatus for coating	J. Coffin	460,112	Sept. 29	2471	618	56	1571
Wire with other metal. Coating	J. Coffin	455,529	July 7	367	94	56	72
Wire-working implement	G. W. Murphy	463,161	Nov. 17	1501	389	57	859
Wire-working tool	J. L. Eaby	455,828	July 14	874	229	56	176
Wires, cables, &c., and for making tubing and cord. Machine for covering	V. and J. Royle, Jr.	457,482	Aug. 11	932	237	56	713
Wires. Device for tightening	A. Newkirk	445,250	Jan. 27	2089	539	54	432
Wires on poles. Device for stretching heavy	H. P. Ball	461,109	Oct. 13	863	222	57	173
Wires through conduits. Mechanism for carrying	F. A. Wessel	450,206	Apr. 14	823	{ 207 208 }	55	166
Withes. Device for twisting and looping	G. C. Stone	465,894	Dec. 29	3032	773	57	1750
Wood and metal working machine. Combination	M. C. Patrick	465,493	Dec. 22	2371	607	57	1615
Wood-bending machine	A. Hirschbeimer and C. M. Mueller	466,017	Dec. 29	3237	825	57	1790
Wood-bundling machine	J. S. Considine	459,812	Sept. 22	2011	505	56	1476
Wood channeling and grooving machine	A. B. Cameron	450,396	Apr. 14	1141	279	55	225
Wood-choppers. Foot-support for	O. Mosier	459,300	Sept. 8	1179	266	56	1302
Wood-fiber digester	W. P. Hawley	445,767	Feb. 3	419	105	54	595
Wood-filler	J. J. Lynch and J. F. Crowley	450,296	Apr. 14	973	.....	55	193
Wood for ornamental and decorative purposes. Cutting or preparing	L. W. Murch	451,834	May 5	589	146	55	692
Wood. Machine for embossing designs on	F. H. Hawkins	461,919	Oct. 27	2250	{ 556 557 }	57	453
Wood. Machine for ornamenting	F. H. Hawkins	461,918	Oct. 27	2245	{ 555 556 }	57	452
Wood. Means for joining	E. J. Fletcher	446,914	Feb. 24	2308	574	54	989
Wood or other compressible material. Machine for ornamenting	C. L. Davis	451,391	Apr. 28	2715	674	55	550
Wool or similar fibers. Machine for washing	F. G. Sargent	452,501	May 19	1718	{ 432 433 }	55	913
Wood-polishing machine	J. E. Carpenter	449,666	Apr. 7	32	7	55	8
Wood-polishing machine	J. L. Perry	447,047	Feb. 24	2528	{ 627 628 }	54	1029

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Wood-polishing machine.....	J. L. Perry.....	449,697	Apr. 7	78	19,20	55	17
Wood-splitting machine.....	W. W. Trevor.....	451,228	Apr. 23	2475	611	55	502
Wood surfaces. Finishing.....	A. Bryce.....	446,962	Feb. 24	2379	592	54	1002
Wood-trimming machine.....	C. Neracher.....	461,162	Oct. 13	939	243	57	187
Wood-turning machine.....	A. Derouin.....	453,965	June 9	1187	310	55	1383
Wood-work. Inlaid.....	A. B. Cameron.....	454,517	June 23	2013	522	55	1556
Wood-worker. Variety.....	H. J. Colburn.....	448,320	Mar. 17	1731	438	54	1466
Wood-working machine.....	J. Braithwaite.....	459,809	Sept. 22	2002	504	56	1474
Wood-working machine.....	E. H. Gibson.....	445,446	Jan. 27	2321	602 603	54	479
Wood-working machine.....	S. F. Tibbetts.....	455,538	July 7	384	98,99	56	75
Wood-working machine.....	G. W. Walton.....	448,388	Mar. 17	1843	463	54	1487
Wood-working machines. Cutter-head for.....	S. J. Shimer.....	451,311	Apr. 23	2606	643	55	530
Wood-working tool.....	W. H. Johnson.....	445,276	Jan. 27	2086	538	54	431
Wooden package.....	L. M. Reed.....	463,777	Nov. 24	2480	647 648	57	1055
Wooden patterns. Wrapping-plate for.....	D. Fraser.....	457,991	Aug. 18	1752	460	56	879
Wooden pipe.....	C. W. Dwell.....	444,339	Jan. 6	558	144	54	111
Wool-combing machines. Dabbing-brush-actuating mechanism for.....	J. Soothill.....	462,598	Nov. 3	596	147	57	665
Wool or other fibrous material. Apparatus for drying.....	F. Wever.....	462,184	Oct. 27	2651	663 664	57	530
Wool-washing apparatus.....	W. Eastwood and A. Ambler.....	460,852	Oct. 6	486	124	57	96
Wool-washing machine.....	S. and F. G. Davis.....	458,315	Aug. 25	2271	555	56	984
Wool-washing machine.....	L. A. Peckham.....	462,582	Nov. 3	572	139 140	57	661
Wool-washing machine.....	F. G. Sargent.....	455,050	June 30	2958	753	55	1739
Wool-holder.....	J. L. Fritz.....	451,925	May 12	747	188	55	727
Working-barrel attachment and combination of valves.....	A. E. Barnhart.....	464,785	Dec. 8	1210	301	57	1374
Worsted and woolen fabrics, &c. Machinery for finishing.....	J. Kirk and B. Lee.....	448,439	Mar. 17	1924	483 484	54	1503
Wort. Preparing.....	C. Rach.....	460,989	Oct. 13	698	57	143	
Wort. Producing clear.....	G. Sobotka.....	458,986	Sept. 1	683	166	56	1199
Woven fabric.....	J. Hilton.....	457,765	Aug. 11	1371	353	56	802
Woven fabric.....	I. McCallum.....	453,288	June 2	116	47	55	1179
Woven fabric.....	I. McCallum.....	453,289	June 2	168	47	55	1179
Woven fabric.....	W. Talbot.....	457,410	Aug. 11	810	208	56	691
Woven pantaloons, overalls, &c.....	R. Fox.....	462,040	Oct. 27	2427	602	57	487
Wrapper-paster.....	C. Y. Knight.....	449,124	Mar. 31	2999	757	54	1725
Wrapping-machine.....	W. A. Brown.....	466,075	Dec. 29	3327	849	57	1809
Wrapping-machine.....	G. F. McCombs.....	466,120	Dec. 29	3392	868 869 870	57	1822
Wreck-indicating device.....	A. F. Ward.....	457,174	Aug. 4	370	95	56	603
Wrench:							
See Adjustable wrench. Pipe and nut wrench.							
Axle-nut wrench. Pipe or nut wrench.							
Bicycle-spoke-nipple wrench. Pivoted-jaw wrench.							
Buggy-wrench. Power-wrench.							
Bung-wrench. Ratchet-wrench.							
Chain-wrench. Rod or pipe wrench.							
Engineer's wrench. Screw-wrench.							
Fence-wrench. Spanner-wrench.							
Flange-wrench. Tap-wrench.							
Machine-wrench. Tire-bolt wrench.							
Monkey-wrench. Vehicle-wrench.							
Nut-wrench. Wagon-wrench.							
Nut and pipe wrench. Wagon or carriage wrench.							
Pipe-wrench. Wheel-wrench.							
Wrench.....	J. A. Abbots.....	451,991	May 12	849	217	55	747
Wrench.....	C. A. Adams.....	454,896	June 30	2640	677	55	1678
Wrench.....	E. J. Barber.....	459,733	Sept. 22	1891	477	56	1453
Wrench.....	B. F. Bennett.....	450,707	Apr. 21	1649	396	55	337
Wrench.....	S. Boothroyd.....	456,265	July 21	1523	404	56	308
Wrench.....	H. T. Briggs.....	448,114	Mar. 10	1363	349	54	1386
Wrench.....	J. H. Brown.....	451,022	Apr. 28	2147	531	55	440
Wrench.....	J. H. Brown.....	451,023	Apr. 28	2148	531	55	440
Wrench.....	C. T. Burr and G. B. Hankins.....	461,603	Oct. 20	1723	422	57	345
Wrench.....	A. B. Chadwick.....	451,024	Apr. 28	2150	531	55	441
Wrench.....	F. S. Chaney.....	451,396	Apr. 28	2724	676	55	552
Wrench.....	C. W. Cheney.....	457,107	Aug. 4	269	70	56	584
Wrench.....	A. Cincade.....	460,427	Sept. 29	2948	737	56	1662
Wrench.....	L. Coes.....	465,346	Dec. 15	2144	519	57	1560
Wrench.....	L. Coes.....	465,347	Dec. 15	2145	549	57	1561
Wrench.....	L. Coes.....	466,271	Dec. 29	3633	929	57	1867
Wrench.....	F. S. Cook.....	447,665	Mar. 3	625	155	54	1236
Wrench.....	F. S. Cook.....	452,518	May 19	1746	439	55	919
Wrench.....	F. S. Cook.....	464,751	Dec. 8	1153	287	57	1363
Wrench.....	J. O. Cottrell.....	461,771	Oct. 20	2001	494	57	397
Wrench.....	M. Cummins.....	454,678	June 23	2281	585	55	1603
Wrench.....	O. L. and G. T. Dodge.....	458,337	Aug. 25	2312	564	56	993
Wrench.....	B. Donabue.....	454,612	June 23	2183	563	55	1585
Wrench.....	C. H. Driver.....	449,793	Apr. 7	237	60	55	48
Wrench.....	J. Du Shane.....	455,183	June 30	3176	805	55	1782
Wrench.....	B. B. Farris.....	448,013	Mar. 10	1230	312	54	1358
Wrench.....	H. J. Gilcher.....	456,143	July 21	1329	352	56	271
Wrench.....	R. Haberthür and J. M. Stowell.....	448,958	Mar. 24	2739	691	54	1665
Wrench.....	G. F. Hall.....	451,183	Apr. 28	2401	593	55	489
Wrench.....	A. Hamelehle.....	448,146	Mar. 10	1412	361	54	1396
Wrench.....	C. T. Hammack.....	463,044	Nov. 10	1301	337	57	812
Wrench.....	H. Hammond.....	449,410	Mar. 31	3491	878	54	1814
Wrench.....	A. Hitt.....	452,410	May 19	1570	389	55	888
Wrench.....	J. J. Hogan.....	450,154	Apr. 14	748	190	55	152

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Wrench	S. Hussey	444,937	Jan. 20	1556	399	54	319
Wrench	J. M. Iverson	465,272	Dec. 15	2016	515	57	1537
Wrench	T. D. Keith	447,952	Mar. 10	1117	281	54	1336
Wrench	D. A. Kershner	457,050	Aug. 4	172	43	56	566
Wrench	E. H. Kinsey	445,020	Jan. 20	1677	431	54	344
Wrench	O. Knapp and C. E. Salisch	460,474	Sept. 29	3020	756	56	1675
Wrench	W. O. Lee	450,516	Apr. 14	1320	324	55	260
Wrench	W. Lehman	465,063	Dec. 15	1666	424	57	1471
Wrench	H. H. Love	454,219	June 16	1557	409	55	1461
Wrench	P. W. Lowmes	446,220	Feb. 10	1171	287	54	743
Wrench	H. Marshal	444,450	Jan. 13	729	191	54	153
Wrench	J. Mattan	446,143	Feb. 10	1039	255	54	720
Wrench	G. L. McCauley	449,257	Mar. 31	3207	809	54	1763
Wrench	C. A. McIntosh	455,238	June 30	3253	825	55	1797
Wrench	E. C. Mead	445,185	Jan. 27	1948	503	54	404
Wrench	W. F. Mercer	455,225	June 30	3237	823	55	1794
Wrench	J. A. Miller	454,222	June 16	1560	410	55	1462
Wrench	M. E. O'Connor	460,155	Sept. 29	2541	634	56	1584
Wrench	E. Obnstrano and O. Gustafson	452,907	May 26	2359	596	55	1046
Wrench	J. B. Perault	445,356	Jan. 27	2199	570	54	455
Wrench	C. E. Pickens	453,820	June 9	1003	262	55	1346
Wrench	D. R. Porter	450,681	Apr. 21	1610	387	55	331
Wrench	W. J. Pugh	446,291	Feb. 10	1303	318	54	770
Wrench	D. S. Robinson	464,084	Dec. 1	118	30	57	1160
Wrench	H. J. Rosenberg	460,062	Sept. 22	2391	597	56	1548
Wrench	L. Schlesinger	460,539	Sept. 29	3143	785	56	1701
Wrench	F. F. Schofield	455,821	July 14	865	226	56	174
Wrench	E. Shaw	458,796	Sept. 1	370	90	56	1136
Wrench	W. J. Shea and C. Birkery	444,111	Jan. 6	211	50	54	43
Wrench	J. E. Sholl	465,542	Dec. 22	2468	629	57	1633
Wrench	T. Sherk	450,241	Sept. 8	1090	266	56	1284
Wrench	J. H. Stiles	447,379	Mar. 3	167	46	54	1149
Wrench	S. Stock	457,232	Aug. 4	470	123	56	621
Wrench	F. S. Thring	455,133	June 30	3082	785	55	1764
Wrench	R. T. Torkelson	459,218	Sept. 8	1059	257	56	1378
Wrench	D. E. Van Horn	450,651	Apr. 21	1566	376	55	322
Wrench	T. F. Vandegrift	444,171	Jan. 6	319	77	54	65
Wrench	T. F. Vandegrift	444,511	Jan. 13	840	218	54	175
Wrench	T. F. Vandegrift	460,694	Oct. 6	268	65	57	53
Wrench	G. L. Webb	451,283	Apr. 28	2570	633	55	523
Wrench	S. J. Weaver	462,421	Nov. 3	328	80	57	613
Wrench	A. C. Whittier	449,722	Apr. 7	118	31	55	25
Wrench	M. J. Wilson	463,263	Nov. 17	1664	435	57	891
Wrench	F. M. and J. Wirtz	451,792	May 5	532	131	55	680
Wrench and gas-pipe tongs. Combined	J. G. Lind	459,377	Sept. 8	1311	326	56	1329
Wrench-tool. Combination	A. C. Haunty	460,438	Sept. 29	2963	741	56	1665
Wrenches. Making	E. Shaw	458,797	Sept. 1	372	90	56	1136
Wrenches. Protector for jaws of	C. C. Conroy	448,124	Mar. 10	1378	353	54	1389
Wringer							
See Clothes-wringer. Mop-wringer.							
Wringer-roller	C. A. Kohl	449,545	Mar. 31	3701	930	54	1854
Wringing-machine hanger	J. Sherlock	457,523	Aug. 11	986	252	56	724
Writing and drawing table	J. G. E. Sauer	459,312	Sept. 8	1196	290 } 291 }	56	1306
Writing and moistening device. Combined	A. H. Stevens	460,602	Oct. 6	86	23	57	19
Yarn-dressing machines. Tension device for	T. H. Connor	454,255	June 16	1694	422	55	1471
Yarn guide and clearer	J. M. Curtice	448,296	Mar. 17	1693	428	54	1459
Yarn-hanking machine	J. Dart	464,430	Dec. 1	646	159 } 160 }	57	1258
Yarn in hanks. Machinery for drying	J. B. and E. Whiteley	465,086	Dec. 15	1710	435 } 436 }	57	1480
Yarn. Machine for scouring and dyeing	W. Blackburn, R. E. Bray, and L. Clayton	455,854	July 14	902	236 } 237 }	56	182
Yarn. Making lumpy	J. B. Emsley	451,115	Apr. 28	2272		55	466
Yarn-nippers	L. Wimmer	463,566	Nov. 17	2140	565	57	982
Yarn-spooler	G. O. Wickers and J. H. Stone	444,562	Jan. 13	921	240	54	191
Yarn-spooling machine	J. W. Foster	459,040	Sept. 8	777	189	56	1324
Yeast-cake	J. W. Cameron	451,706	May 5	400		55	655
Yeast. Making	A. Von Sigmond and R. Genge	461,774	Oct. 20	2007		57	398
Yoke. Animal	J. N. Montgomery	450,758	Apr. 21	1714	414	55	350
Yoke clip. Neck	J. T. Hamilton	455,729	July 14	875	229	56	176
Yoke. Neck	J. G. Burbridge	457,422	Aug. 11	828	214	56	695
Yoke. Neck	L. M. Cleveland	448,295	Mar. 17	1692	428	54	1459
Yoke. Neck	H. De Witt	446,665	Feb. 17	1883	468	51	897
Yoke. Neck	D. H. Gotshall and H. Petit	457,269	Aug. 4	544	142	56	633
Yoke. Neck	J. Kleppinger and W. H. Mead	446,742	Feb. 17	2009	501	54	922
Yoke. Neck	W. H. Sholl	455,582	July 7	464	121	56	90
Yoke. Ox	W. J. Ackerman	448,104	Mar. 10	1351	346	54	1383
Yoke. Scotch	F. H. Laforce and H. J. Barker	453,426	June 2	401	104	55	1223
Zein. Extracting	T. B. Osborne	456,773	July 28	2372		56	477
Zigzags. Machine for forming	W. M. Bold	456,533	July 21	1964	517	56	391
Zinc. Electrolytically obtaining	A. Watt	459,556	Sept. 15	1599		56	1391
Zinc from zinciferous ores. Obtaining sulphate of	C. F. Crosemlire	457,256	Aug. 4	516		56	629
Zinc or other thin sheets to bed-plates. Device for applying	A. H. Cruse	457,305	Aug. 4	604	158	56	645
Zinc ores. Apparatus for treating	E. Grützner and O. Koehler	453,806	June 9	986	257	55	1343
Zinc ores. Treating	W. West	444,997	Jan. 20	1649	422	54	338
Zinc ores. Treating	W. West. (Reissue)	11,188	Sept. 8	1325	332	56	1332
Zinc. Refining	J. W. Richards	448,802	Mar. 24	2505		54	1621
Zither	G. B. Durkee	447,948	Mar. 10	1111	279	54	1335
Zither-piano	W. F. Gutte	463,987	Nov. 24	2820	731	57	1119
Zithers. Tail-piece for	J. Charva	452,361	May 19	1493	369	55	874



ALPHABETICAL LIST OF DESIGNS.

Design.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
Advertising-card	A. Hopcraft	20,524	Feb. 17	54	821
Advertising-card	W. H. Spahr	20,663	Apr. 7	55	3
Album	L. A. Lipman	20,568	Mar. 10	54	1269
Altar. Family.	H. B. Hallock	20,522	Feb. 17	54	821
Altar. Family.	G. Stieckluna	20,492	Jan. 27	54	394
Apron	S. Jacobson	20,697	Apr. 28	55	435
Atomizers. Cap and nozzle for	A. M. Shurtleff	21,148	Nov. 3	57	550
Ax	C. W. Hubbard	20,771	May 26	57	1002
Ax	E. Rogers	21,253	Dec. 23	57	1600
Ax-blade	J. M. Didero	20,814	June 2	55	1146
Badge	D. L. Auld	20,528	Feb. 24	54	963
Badge	G. Bignell	21,251	Dec. 22	57	1600
Badge	W. H. Brooks	20,440	Jan. 6	54	2
Badge	E. D. Fisher	21,242	Dec. 15	57	1432
Badge	G. B. Goode	21,053	Sept. 22	56	1452
Badge	M. Hetzel	21,117	Oct. 13	57	128
Badge	H. B. Houston	21,243	Dec. 15	57	1432
Badge	C. F. Irons	20,645	Mar. 31	54	1716
Badge	E. W. Lawson	20,453	Jan. 6	54	2
Badge	M. K. Light	20,455	Jan. 6	54	2
Badge	C. B. McElroy and T. W. Minshull	20,580	Mar. 10	54	1270
Badge	J. D. Perry	21,095	Oct. 6	57	2
Badge	C. H. Smith	20,969	July 28	56	401
Badge	L. E. Stitz	20,511	Feb. 10	54	666
Badge	F. A. Strough	21,230	Dec. 8	57	1284
Badge	J. H. Turner	21,245	Dec. 15	57	1432
Badge	G. C. Van Roden	20,748	May 19	55	870
Badge	J. H. Whitehouse	20,950	July 21	56	266
Badge. Campaign	E. D. Fisher	21,172	Nov. 17	57	850
Badge or seal	E. H. Haworth	21,267	Dec. 29	57	1725
Ballot-box	J. Pettibone	20,797	June 2	55	1146
Banjo	J. Schumacher	21,057	Sept. 22	56	1452
Barber's chair	T. J. Collins	20,535	Mar. 3	54	1117
Barber's chair	A. J. Rollert	{ 20,925 } to { 20,927 }	July 7	56	2
Basin. Wash.	J. J. Royle	20,908	July 7	56	1
Basket. Fruit	J. A. Doty	20,641	Mar. 31	54	1716
Basket. Work	W. H. Plumb	21,187	Dec. 1	57	1135
Bedstead	L. Zimskind	20,458	Jan. 6	54	2
Bell	J. L. Maher	21,055	Sept. 22	56	1452
Belt. Apparel	J. Bigelow	20,640	Mar. 31	54	1716
Belt-clasp	G. M. Hubbard	{ 21,062 } to { 21,065 }	Sept. 22	56	1452
Belt. Waist	J. Lambert	20,571	Mar. 10	54	1270
Bicycle-crank	E. J. Willis	21,059	Sept. 22	56	1452
Bottle	H. Coleman, Jr.	20,629	Mar. 24	54	1566
Bottle	J. L. Dawes	20,656	Mar. 31	54	1717
Bottle	D. Etienne	20,962	July 28	56	401
Bottle	D. D. Harr	20,588	Mar. 17	54	1422
Bottle	H. J. Heinz	20,830	June 9	55	1280
Bottle	R. K. Helphenstine and J. E. McKahan	21,244	Dec. 15	57	1432
Bottle	E. A. Kramer	20,567	Mar. 10	54	1269
Bottle	W. B. Lillard	20,833	June 16	55	1403
Bottle	A. P. Moore	21,238	Dec. 15	57	1432
Bottle	W. T. Murphy	20,469	Jan. 6	54	2
Bottle	J. W. Nicholson	20,527	Feb. 24	54	963
Bottle	A. Rheinstrom	20,581	Mar. 10	54	1270
Bottle	W. Rodiger	20,792	June 2	55	1146
Bottle	E. J. S. Van Houten	21,192	Dec. 1	57	1135
Bottle. Druggist's show	F. M. Underhill	20,836	June 16	55	1403
Bottle or vase	J. B. Lyon	20,298	June 30	55	1656
Bottle. Perfumery	A. P. Babcock	20,993	Aug. 18	56	807
Box	W. C. Estes	20,519	Feb. 10	54	666
Box	G. Fuchs	20,954	July 21	56	266
Box	H. J. Tenney	21,168	Nov. 10	57	698
Bracket	B. H. Sanders	21,199	Dec. 1	57	1136
Braid or ruching	C. G. Hill	21,170	Nov. 10	57	698
Breast-pump	C. A. Tatam	20,585	Mar. 17	54	1422
Bretzel or cracker	D. F. Stauffer	20,860	June 23	55	1534
Brooch or similar article	E. P. Beach	20,518	Feb. 10	54	666
Broom-holder	H. Cribbins	20,827	June 9	55	1280
Brush	R. W. Hardie	21,179	Nov. 24	57	1006
Brush	C. E. Thompson	20,486	Jan. 20	54	269
Brush	G. W. Wilson	20,578	Mar. 10	54	1270
Brush-back	S. Rowan	20,857	June 23	55	1534
Brush-hook	J. G. Cofman	20,684	Apr. 21	55	291
Brush or mirror back	H. Fuchs and G. B. Beiderhase	21,071	Sept. 29	56	1568
Brush or mirror back, &c	C. Wagenführ	21,018	Aug. 25	56	932

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Design.	Name.	No.	Date.	Official Gazette.	
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Brushes, &c. Back for	A. F. Jackson	20,472	Jan. 6	54	2
Buckle	E. P. Crider	20,861	June 23	55	34
Buckle	J. W. Harriss	21,037	Sept. 15	56	1340
Buckle-plate	G. E. Adams	21,233	Dec. 15	57	1432
Buckle-plate	G. E. Adams	21,241	Dec. 15	57	1432
Buckle. Suspender	C. R. Harris	20,544	Mar. 3	54	1117
Buildings. Siding-plate for	L. L. Sagendorph	20,825	June 9	55	1280
Bulletin-board	W. F. Pattou	20,905	June 30	55	1656
Burial-casket	L. Stein	20,491	Jan. 27	54	394
Button	E. Harrington	20,517	Feb. 10	54	666
Button	J. Pottibone	20,790	June 2	55	1146
Button	J. V. W. Vandenburgh	21,151	Nov. 3	57	550
Button. Jet	L. Prange	21,030	Sept. 8	56	1208
Button or badge	J. Taylor	21,274	Dec. 29	57	1725
Calendar	S. Rowan	20,856	June 23	55	1534
Calendar-mount	F. W. Perry	20,677	Apr. 14	55	144
Calendar-stand	G. L. Crowell, Jr.	20,442	Jan. 6	54	2
Candlestick	S. W. Babbitt	21,138	Oct. 27	57	416
Can	G. W. Walton	20,562	Mar. 3	54	1117
Cane	H. B. Snyder	20,991	Aug. 11	56	666
Cane-handle	A. Krouse	20,854	June 23	55	1534
Cane or umbrella handle	W. H. Jamouneau	21,130	Oct. 27	57	416
Cane or umbrella handle	H. L. Leibe	20,745	May 19	55	870
Cane or umbrella handle	H. E. Osborn	20,769	May 19	55	870
Cane or umbrella handle	H. O. Schmidt	{ 20,549 to 20,561 }	Mar. 3	54	1117
Car body. Railway	J. Hammond	21,042	Sept. 15	56	1340
Cards. Backs for playing	S. L. Coheu	20,717	May 12	55	719
Carpet	W. F. Brown	21,088	Sept. 29	56	1568
Carpet	P. C. Chambellan	21,089	Sept. 29	56	1568
Carpet	R. F. Doherty	20,592	Mar. 24	54	1565
Carpet	R. F. Doherty	{ 20,751 to 20,752 }	May 19	55	870
Carpet	J. Donzel	20,753	May 19	55	870
Carpet	E. Fisher	{ 20,802 to 20,803 }	June 2	55	1146
Carpet	E. Fisher	{ 20,834 to 20,839 }	July 14	56	146
Carpet	E. Fisher	21,029	Sept. 1	56	1064
Carpet	J. L. Folsom	20,593	Mar. 24	54	1565
Carpet	H. A. Griffin	20,829	June 9	55	1280
Carpet	H. Horan	{ 20,940 to 20,941 }	July 14	56	146
Carpet	T. L. Lawton	20,454	Jan. 6	54	2
Carpet	T. L. Lawton	20,462	Jan. 6	54	2
Carpet	J. B. Moffat	20,596	Mar. 24	54	1565
Carpet	H. W. Parton	{ 20,597 to 20,612 }	Mar. 24	54	1565
Carpet	H. W. Parton	{ 20,754 to 20,762 }	May 19	55	870
Carpet	H. W. Parton	20,791	June 2	55	1146
Carpet	P. Pignot	{ 20,613 to 20,618 }	Mar. 24	54	1565
Carpet	P. Pignot	{ 20,763 to 20,767 }	May 19	55	870
Carpet	A. F. Reddie	20,783	May 26	55	1002
Carpet	E. G. Sauer	{ 20,805 to 20,808 }	June 2	55	1146
Carpet	E. G. Sauer	20,820	June 9	55	1280
Carpet	E. G. Sauer	20,975	Aug. 4	56	531
Carpet	H. Schrader	20,470	Jan. 6	54	2
Carpet	G. J. Stengel	{ 20,619 to 20,624 }	Mar. 24	54	1565
Carpet	G. J. Stengel	20,768	May 19	55	870
Carpet	W. Thomas	{ 20,626 to 20,628 }	Mar. 24	54	1566
Carpet	C. W. Swapp	{ 20,944 to 20,945 }	July 14	56	146
Carpet	C. W. Swapp	21,039	Sept. 15	56	1340
Carpet button or fastener. Stair	D. Walker	20,661	Apr. 7	55	3
Carpet button. Stair	D. Walker and F. H. Howard	20,540	Mar. 3	54	1117
Carpet fastener. Stair	D. Walker	{ 20,499 to 20,501 }	Feb. 3	54	510
Carpet-stretcher	C. F. Hackman	20,850	June 23	55	1534
Carpet. Wood	G. F. Fricke	20,996	Aug. 18	56	807
Carriage-canopy	J. M. Ryan	21,083	Sept. 29	56	1568
Casket-handle ear	M. Brener	20,714	May 12	55	719
Ceiling-panel	F. G. Caldwell	20,933	July 14	56	146
Chain. Watch	A. Ladner	{ 21,109 to 21,110 }	Oct. 13	57	128
Chair	J. G. Wilson	20,575	Mar. 10	54	1270
Chair-back	H. J. Harwood	20,818	June 9	55	1280
Champagne-glass	H. T. Wilhelm	21,149	Nov. 3	58	550
Check. Bank	J. L. Copp	20,488	Jan. 20	54	269

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Design.	Name.	No.	Date.	Official Gazette.	
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Chenille fabric	W. G. Oldham	21,271	Dec. 29	57	1725
Chenille fabric	W. T. Smith	21,273	Dec. 29	57	1725
Church-pew	S. Springsteen	20,868	June 30	55	1656
Cigar-band	L. C. Wagner	20,799	June 2	55	1146
Cigar-lighter	W. H. Hoschke	21,235	Dec. 15	57	1432
Cigar-lighter	B. D. Milliken	20,497	Feb. 3	54	510
Clock-case	H. W. Bischoff	21,182	Nov. 24	57	1006
Clock-face	W. N. Brunner	20,817	June 9	55	1280
Coach-body	A. E. Herman	21,116	Oct. 13	57	128
Coffin-plate	W. F. Smith	21,111	Oct. 13	57	128
Collar	T. E. McCann	20,872	June 30	55	1656
Collar or ruffle	J. Wightman	20,569	Mar. 10	54	1270
Collar-pad	A. Scott	20,919	July 7	56	1
Collar-pad fasteners. Roll-spring of	E. F. Pfueger	20,456	Jan. 6	54	2
Console	W. B. Bigelow	{ 21,249 21,250 21,084 to 21,087 }	Dec. 22	57	1599
Cracker or bretzel	G. A. Bayle	{ 21,087 to 21,087 }	Sept. 29	56	1568
Cracker, &c	E. C. Pearson	20,662	Apr. 7	55	3
Crimping-form	J. P. Eaton	21,163	Nov. 10	57	698
Cuff	F. R. Lewis	20,634	Mar. 24	54	1566
Culinary box	J. N. Beall	21,070	Sept. 29	56	1568
Curling-iron ornamentation	R. Nicol, Jr.	21,026	Sept. 1	56	1064
Curling-stone	W. Karl	20,525	Feb. 17	54	821
Curtain, &c	W. L. Bratton	20,912	July 7	56	1
Curtain	R. Hartley	{ 20,963 to 20,966 }	July 28	56	401
Curtain or portière	A. Markgraf	20,637	Mar. 24	54	1566
Cutter	J. L. Boatner	21,007	Aug. 25	56	932
Dental cabinet	T. J. Collins	20,582	Mar. 17	54	1422
Dental cabinet	T. J. Collins	20,643	Mar. 31	54	1716
Dish	E. Gérard	20,521	Feb. 17	54	821
Dish	C. E. Haviland	{ 20,631 to 20,633 }	Mar. 24	54	1566
Dish	J. E. McBride	20,487	Jan. 20	54	269
Dish	E. M. Pearson	21,102	Oct. 6	57	2
Dish. Covered	H. Brunt	21,128	Oct. 27	57	416
Dish. Covered	J. Dean	20,815	June 2	55	1146
Dish. Covered	D. F. Haynes	20,451	Jan. 6	54	2
Dishes. Ornamentation of	H. Laughlin	20,968	July 28	56	401
Door	D. F. Hatch, R. H. Jenks, and J. J. Wemple	21,073	Sept. 29	56	1568
Door-hanger frame	W. J. Lane	21,006	Aug. 18	56	807
Draw-pull	W. J. Swan	20,498	Feb. 3	54	510
Drawer-pull	J. M. Jeilison	21,171	Nov. 10	57	698
Dress-shield	I. B. Kleinert	20,903	June 30	55	1656
Dress-shield	I. B. Kleinert	21,120	Oct. 20	57	278
Dress-trimming	E. Engstfeld	21,033	Sept. 15	56	1339
Dumping-bucket	G. L. Stuebner	20,906	June 30	55	1656
Easel	C. H. Maish	21,144	Nov. 3	57	550
Easel	F. J. X. Miller	21,048	Sept. 15	56	1340
Easel. Flower	C. A. Peters	21,044	Sept. 15	56	1340
Edging or trimming	C. G. Hill	21,129	Oct. 27	57	416
Electric-dynamo frame	J. J. Wood	21,270	Dec. 29	57	1725
Electric-wire pole	J. R. Fletcher	20,449	Jan. 6	54	2
Embroidery	P. Kleeberg	20,577	Mar. 10	54	1270
Embroidery	P. Kleeberg	20,652	Mar. 31	54	1717
Embroidery-pattern	P. Kleeberg	20,473	Jan. 6	54	2
Ewer	C. E. Haviland	20,848	June 23	55	1534
Ewer or jug	D. F. Haynes	20,450	Jan. 6	54	2
Fence-post anchor	T. W. Hutchins	20,681	Apr. 21	55	291
Fence-strand	E. F. Hathaway	{ 20,512 20,513 }	Feb. 10	54	666
File	J. P. Pray	21,000	Aug. 18	56	897
Finger-ring	E. P. Beach	{ 20,735 to 20,742 }	May 19	55	870
Finger-ring	E. P. Beach	20,772	May 26	55	1002
Fire-place frame and front	C. Braun	21,108	Oct. 13	57	128
Fire-place front	W. McDermott	20,917	July 7	56	1
Fire-place front	J. P. Ouerbacker	{ 21,121 21,122 }	Oct. 20	57	278
Flask or bottle	F. H. Thümmler	21,174	Nov. 17	57	850
Flower-frame	N. Steffens	{ 20,533 20,534 }	Feb. 24	54	963
Flower-frame	N. Steffens	20,638	Mar. 24	54	1566
Flower-pot	T. S. Balsley	20,523	Feb. 17	54	821
Fly-paper sheet	C. Dorsey	20,691	Apr. 28	55	435
Furnace	F. Kernan, Jr., and W. H. Landers	20,648	Mar. 31	54	1717
Game-board	E. C. Sherman	20,478	Jan. 13	54	142
Game-counter	H. W. Harris	20,713	May 12	55	719
Game-counter	L. Steinberger	{ 20,709 20,710 }	May 5	55	577
Garment-protector	O. F. Ostergren and A. K. Schaap	20,548	Mar. 3	54	1117
Gate	W. Tweeddale	20,730	May 19	55	870
Gem-setting	J. G. Heppding	20,870	June 30	55	1656
Glass or other ware. Ornamentation of	J. Hoare	20,504	Feb. 3	54	510
Glassware. Ornamentation of	W. C. Anderson	20,921	July 7	56	2
Glassware. Ornamentation of	J. D. Bergen	21,050	Sept. 22	56	1452
Glassware. Ornamentation of	J. Billard	20,570	Mar. 10	54	1270
Glassware. Ornamentation of	J. Proeger	21,113	Oct. 13	57	128
Glassware. Ornamentation of	T. Singleton, Jr.	21,173	Nov. 17	57	850

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Design.	Name.	No.	Date.	Official Gazette.	
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Globe.....	E. Böhm and W. H. Power.....	20,894	June 30	55	1656
Glove-fastener cap.....	J. R. Smith.....	20,463	Jan. 6	54	2
Glove-fastener socket.....	E. J. Kraetzer.....	20,461	Jan. 6	54	2
Grate.....	C. P. Peterson.....	20,573	Mar. 10	54	1270
Grate-front.....	E. T. Harris.....	20,821	June 9	55	1280
Grave-cover.....	L. C. Smith.....	20,992	Aug. 13	56	807
Hammer. Claw.....	W. Kendall.....	20,852	June 23	55	1534
Hammer. Tool.....	J. F. Shannon.....	20,777	May 26	55	1002
Handle for forks, spoons, or similar ware.....	C. E. Galt.....	20,545	Mar. 3	54	1117
Handle for knives, &c.....	K. A. Hathaway.....	20,647	Mar. 31	54	1716
Handle for spoons, &c.....	W. A. Bates.....	20,576	Mar. 10	54	1270
Handle for spoons, &c.....	H. L. Dole.....	20,543	Mar. 3	54	1117
Handle for spoons, &c.....	W. B. Durgin.....	20,542	Mar. 3	54	1117
Handle for spoons, &c.....	W. B. Durgin.....	20,591	Mar. 24	54	1505
Handle for spoons, &c.....	W. B. Durgin.....	{ 20,673 }	Apr. 14	55	144
Handle for spoons, &c.....	G. and B. W. Gooding.....	20,664	Apr. 7	55	3
Handle for spoons, &c.....	R. Harris.....	20,675	Apr. 14	55	144
Handle for spoons, &c.....	L. R. Horton.....	{ 20,594 }	Mar. 24	54	1565
Handle for spoons, &c.....	W. B. Jones.....	20,509	Feb. 10	54	666
Handle for spoons, &c.....	R. Leding.....	20,649	Mar. 31	54	1717
Handle for spoons, &c.....	C. Osborne.....	20,466	Jan. 6	54	2
Handle for spoons, &c.....	F. H. Sloan.....	20,625	Mar. 24	54	1565
Handle for spoons, &c.....	A. N. and F. M. Wood.....	20,672	Apr. 14	55	144
Handle for spoons, forks, &c.....	W. B. Durgin.....	20,644	Mar. 31	54	1716
Handle for spoons, forks, &c.....	J. C. C. Justis.....	20,725	May 19	55	870
Handle for spoons, forks, &c.....	S. F. Roberts.....	20,708	May 5	55	577
Handle socket and plate.....	M. Bremer.....	20,475	Jan. 13	54	142
Hardware. Ornamentation of builder's.....	R. W. E. Christesen.....	20,895	June 30	55	1656
Harness. Box-loop for.....	E. Fox.....	{ 20,718 }	May 12	55	719
Hat or cap.....	J. Adler.....	21,178	Nov. 17	57	850
Head-wear.....	A. Brabadi.....	20,441	Jan. 6	54	2
Heel-mold.....	G. R. Coburn.....	20,786	June 2	55	1146
Horse-blanket.....	C. A. Turner.....	20,539	Mar. 3	54	1117
Horseshoe-pad.....	M. Hallanan.....	20,849	June 23	55	1531
Hose-reel bracket.....	S. J. Meeker.....	20,530	Feb. 24	54	963
Jar.....	C. E. Haviland.....	20,847	June 23	55	1534
Jewel-setting.....	L. Mann.....	20,477	Jan. 13	54	142
Jewel-setting.....	N. L. Ripley.....	20,949	July 21	56	266
Jug.....	W. C. King.....	20,565	Feb. 3	54	510
Jug.....	F. H. Weeks.....	20,988	Aug. 11	56	666
Knob or pull.....	E. G. and W. Hess.....	21,139	Oct. 27	57	416
Knob or pull.....	E. G. and W. Hess.....	{ 21,183 }	Nov. 24	57	1006
Knob or pull.....	E. G. and W. Hess.....	{ 21,184 }			
Knob or pull.....	E. G. and W. Hess.....	{ 21,196 }	Dec. 1	57	{ 1135 }
Knob or pull.....	E. G. and W. Hess.....	{ 21,198 }			{ 1136 }
Knob or pull.....	E. G. and W. Hess.....	21,227	Dec. 8	57	1284
Lace-pin.....	A. Epple.....	20,587	Mar. 17	54	1422
Lace-pin.....	W. C. Finck.....	20,837	June 16	55	1403
Lamp.....	H. F. Stabmer.....	{ 20,670 }	Apr. 14	55	144
Lamp.....	H. F. Stabmer.....	{ 20,671 }			
Lamp-chimney.....	G. W. Blair.....	{ 20,679 }	Apr. 21	55	291
Lamp. Electric-arc.....	J. Beesley and A. B. Benjamin.....	{ 20,680 }	Jan. 20	54	269
Lamp. Electric-arc.....	J. Beesley and A. B. Benjamin.....	20,489	Jan. 20	54	269
Lamp-fount holder.....	A. Patitz.....	{ 20,864 }	June 30	55	1656
Lamp-fount holder.....	A. Patitz.....	{ 20,867 }			
Lamp globe. Incandescent.....	J. von der Kammer.....	20,699	Apr. 28	55	435
Lamp post. Electric.....	E. P. Warner.....	20,688	Apr. 21	55	291
Lamp-shade.....	A. Howard.....	20,651	Mar. 31	54	1717
Lamp-shade.....	M. Kirchberger.....	20,853	June 23	55	1534
Lamp shade. Hanging.....	C. W. Ledig.....	21,035	Sept. 15	56	1340
Lantern. Tubular.....	B. T. Steber.....	21,254	Dec. 22	57	1600
Latch.....	D. D. Nolley.....	20,480	Jan. 13	54	142
Latch case and handle.....	C. H. Leonard.....	21,118	Oct. 20	57	278
Lathe box-leg.....	J. Flather.....	21,126	Oct. 20	57	278
Mantel.....	J. C. Abell.....	21,162	Nov. 10	57	698
Mantel.....	E. Germain.....	{ 21,155 }	Nov. 10	57	698
Match or ash receiver.....	H. L. Liebe.....	20,532	Feb. 24	54	963
Match-safe.....	T. G. Adams.....	20,952	July 21	56	266
Match-safe.....	L. Z. Anderson.....	20,526	Feb. 24	54	963
Match-safe.....	E. A. Bliss.....	20,556	Mar. 17	54	1422
Medal.....	T. C. Oakman.....	21,272	Dec. 29	57	1725
Medal.....	G. A. Schlechter.....	20,970	July 28	56	401
Medal.....	G. A. Schlechter.....	21,146	Nov. 3	57	550
Medal.....	J. Stern.....	21,255	Dec. 22	57	1600
Medallion.....	H. W. Taylor.....	20,699	June 30	55	1656
Medallion or medal.....	T. Dorwin.....	21,185	Dec. 1	57	1135
Metal bar.....	A. W. Spooner.....	20,507	Feb. 3	54	510
Metallic post.....	F. Milliken.....	{ 21,074 }	Sept. 29	56	1568
Metallic post.....	F. Milliken.....	{ 21,076 }			
Money-box.....	A. A. Kleberg and S. Hatt.....	20,703	Apr. 28	55	435
Money-box.....	A. A. Kleberg and S. Hatt.....	20,977	Aug. 11	56	665
Money-cart.....	F. W. Tucker.....	21,246	Dec. 15	57	1432
Money-jug.....	H. Menke.....	21,231	Dec. 8	57	1284
Monument.....	F. S. Ingoldsby.....	21,093	Oct. 6	57	2
Musical instrument.....	J. C. Litzelle.....	20,998	Aug. 18	56	807
Napkin or table-cloth.....	F. S. Pinkus.....	21,080	Sept. 29	56	1568

Alphabetical list of designs—Continued.

Design.	Name.	No.	Date.	Official Gazette.	
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Napkin-ring	W. H. Ludwig	21,186	Dec. 1	57	1135
Neckscarfs. Ornamentation of	S. Finkelstein	20,642	Mar. 31	54	1716
Observatory	E. Eitel	20,529	Feb. 24	54	963
Oil-box	A. Schmid	20,481	Jan. 13	54	142
Oil-can casing	A. J. Duncan	20,639	Mar. 24	54	1566
Oil-cloth	C. T. and V. E. Meyer	{ 20,873 to 20,892 }	June 30	55	1656
Oil-cloth	C. T. and V. E. Meyer	{ 21,066 to 21,069 }	Sept. 22	56	1452
Oil-cloth	C. T. and V. E. Meyer	{ 21,302 to 21,219 }	Dec. 8	57	1284
Oil-cloth	C. T. and V. E. Meyer	21,232	Dec. 8	57	1284
Padlock	J. S. Peacock	20,834	June 16	55	1403
Panel	A. B. Cameron	{ 20,445 to 20,446 }	Jan. 6	54	2
Panel for ceilings, &c.	F. F. Bischoff	20,502	Feb. 3	54	510
Paper-fastener	G. W. McGill	{ 21,098 to 21,099 }	Oct. 6	57	2
Paper-fastener	G. W. McGill	21,112	Oct. 13	57	128
Paper-weight	W. H. Allen	20,716	May 12	55	719
Paper-weight	R. S. Groves	21,201	Dec. 1	57	1136
Paper-weight	J. V. W. Vandenburg	21,150	Nov. 3	57	550
Paper-weight or cigar-holder	E. L. Moodie	20,676	Apr. 14	55	144
Paper, &c. Wrapping	H. W. Burtch	20,654	Mar. 31	54	1717
Paper. Writing	G. A. Raisbeck	20,911	July 7	56	1
Pen-holder	O. Mussinan, Jr.	21,195	Dec. 1	57	1135
Pendant	J. V. W. Vandenburg	21,152	Nov. 3	57	550
Perfumery-vending apparatus. Standard for	O. Giannini	20,721	May 12	55	719
Photograph-mount	G. F. E. Pearsall	20,840	June 16	55	1403
Photographic card	C. A. Wright	21,096	Oct. 6	57	2
Piano leg. Grand	W. B. Bigelow	{ 21,247 to 21,248 }	Dec. 22	57	1599
Picture-frame	H. T. Johnson	21,078	Sept. 29	56	1568
Pin or badge	J. A. Dawley	{ 21,323 to 21,324 }	Dec. 8	57	1284
Plate, &c.	C. E. Haviland	20,630	Mar. 24	54	1566
Pleasure-boat	G. Ohmer	21,041	Sept. 8	56	1208
Pot or jar	C. W. Meinecke	20,490	Jan. 27	54	394
Powder-sprinkler	C. F. Redlich	{ 21,103 to 21,104 }	Oct. 6	57	2
Pressing-board	M. J. Day	20,694	Apr. 28	55	435
Pulley-block	F. O. Worthley	20,693	Apr. 28	55	435
Purse-frame	G. Enger and A. Kress	20,995	Aug. 18	56	807
Purse-frame	A. Goertz	21,164	Nov. 10	57	698
Radiator	W. Burlingame	21,234	Dec. 15	57	1432
Radiator	D. Colestock	{ 20,443 to 20,444 }	Jan. 6	54	2
Radiator	T. C. Joy	20,471	Jan. 6	54	2
Radiator	T. C. Joy	20,583	Mar. 17	54	1422
Radiator	J. B. Pierce	21,028	Sept. 1	56	1064
Radiator	F. H. Pulsifer, Jr.	21,177	Nov. 17	57	850
Radiator	J. R. Reed	20,574	Mar. 10	54	1270
Radiator	T. H. Williams	20,780	May 26	55	1002
Radiator loop-pipe	J. R. Reed	20,565	Mar. 3	54	1117
Range back and shelf	J. E. Brayer and E. J. King	20,482	Jan. 13	54	142
Razor-handle	L. C. Fuller	21,012	Aug. 25	56	932
Razor-handle	M. C. Lefferts	20,997	Aug. 18	56	807
Razor-handle	M. C. Lefferts	{ 21,013 to 21,015 }	Aug. 25	56	932
Reflector or shade	Z. T. Hall	20,724	May 19	55	870
Register face-plate	G. W. Rives	{ 21,123 to 21,124 }	Oct. 20	57	278
Register-front	E. A. Tuttle	20,779	May 26	55	1002
Rein-holder	E. F. Daily	20,447	Jan. 6	54	2
Roof-peak	M. J. Frand	20,695	Apr. 28	55	435
Roofing-plate	L. L. Sagendorph	20,531	Feb. 24	54	963
Roofing-plate	L. L. Sagendorph	20,728	May 19	55	870
Rubber ring	E. Faber	20,696	Apr. 28	55	435
Ruffle or ruching	A. Back	21,049	Sept. 22	56	1452
Ruffling	C. G. Hill	{ 21,259 to 21,262 }	Dec. 22	57	1600
Rug	E. H. Bennett	20,976	Aug. 11	56	665
Rug	E. H. Bennett	{ 21,004 to 21,005 }	Aug. 18	56	807
Rug	E. H. Bennett	21,011	Aug. 25	56	932
Rug	E. H. Bennett	21,019	Sept. 1	56	1064
Rug	J. Pegel	{ 20,983 to 20,984 }	Aug. 11	56	666
Rug	J. Pegel	21,001	Aug. 18	56	807
Rug	J. Pegel	{ 21,021 to 21,022 }	Sept. 1	56	1064
Rug	A. Petzold	20,474	Jan. 6	54	2
Salt-cellar, &c.	C. F. Monroe	20,788	June 2	55	1146
Salt-cup	G. E. Lawton	20,795	June 2	55	1146
Satchel or bag	C. Oswald	20,819	June 9	55	1280
Scarf-pin	E. P. Beach	20,508	Feb. 10	54	666
School-seat	F. P. Jones	20,452	Jan. 6	54	2
Seal-piece	F. von der Kammer	21,161	Nov. 10	57	698
Settee	W. Tweeddale	20,729	May 19	55	870
Shoe-pattern	J. P. Eaton	20,953	July 21	56	266

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Design.	Name.	No.	Date.	Official Gazette.	
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Show-card	J. T. Story	21,047	Sept. 15	56	1340
Sign	Z. Marx	20,839	June 16	55	1403
Sign-letter	H. J. Latham	20,855	June 23	55	1534
Sign-letter	W. H. Putnam	20,918	July 7	56	1
Sign-letter	W. Schumacher	21,147	Nov. 3	57	550
Sign-plate	J. W. Ottele	20,572	Mar. 10	54	1270
Sink-board	H. J. Cohen	20,922	July 7	56	2
Snap-hook	E. L. Howe	21,236	Dec. 15	57	1432
Soap. Cake of	G. M. Finn	20,775	May 26	55	1002
Soap-stand	F. W. Ostrom	21,056	Sept. 22	56	1452
Spinning-ring	C. E. Trowbridge	20,538	Mar. 3	54	1117
Spoon	S. T. Adams	{ 21,106 21,107 }	Oct. 13	57	128
Spoon	C. J. W. Addison	20,689	Apr. 28	55	435
Spoon, &c.	G. H. Balch	{ 20,743 20,744 }	May 19	55	870
Spoon, &c.	W. C. Ball	20,845	June 23	55	1534
Spoon	E. C. Baumgras	20,655	Mar. 31	54	1717
Spoon	E. C. Baumgras	20,665	Apr. 7	55	3
Spoon	H. R. Birely	21,153	Nov. 3	57	550
Spoon, &c.	J. H. and W. H. Bullard	20,841	June 16	55	1403
Spoon	C. Bunker	21,240	Dec. 15	57	1432
Spoon, &c.	C. R. Burch	20,793	June 2	55	1146
Spoon, &c.	A. K. Camp	20,913	July 7	56	1
Spoon	A. K. Camp	20,989	Aug. 11	56	666
Spoon	M. Carranza	{ 21,256 to 21,258 }	Dec. 22	57	1600
Spoon	H. I. Clulee	20,994	Aug. 18	56	807
Spoon	G. L. Crowell, Jr.	20,773	May 26	55	1002
Spoon, &c.	G. L. Crowell, Jr.	20,842	June 16	55	1403
Spoon	G. L. Crowell, Jr.	20,844	June 23	55	1534
Spoon	G. L. Crowell, Jr.	21,265	Dec. 29	57	1725
Spoon	N. G. Davis	20,828	June 9	55	1280
Spoon	A. J. Dempsey	20,666	Apr. 7	55	3
Spoon	A. J. Dempsey	{ 21,221 21,222 }	Dec. 8	57	1284
Spoon, &c.	E. N. Denison	20,915	July 7	56	1
Spoon	G. W. Dimmick	20,701	Apr. 28	55	435
Spoon, &c.	G. W. Dimmick	20,801	June 2	55	1146
Spoon	H. B. Dominick	20,862	June 30	55	1656
Spoon, &c.	W. B. Durgin	20,541	Mar. 3	54	1117
Spoon	W. B. Durgin	{ 20,685 20,686 }	Apr. 21	55	291
Spoon	J. C. Eberhardt	20,907	July 7	56	1
Spoon	E. L. Everett	21,034	Sept. 15	56	1340
Spoon	D. T. Foley	21,266	Dec. 29	57	1725
Spoon	B. B. Freeman	20,774	May 26	55	1002
Spoon, &c.	E. I. Garfield	20,846	June 23	55	1534
Spoon	E. I. Garfield	20,896	June 30	55	1656
Spoon	M. E. Gilbreth	21,225	Dec. 8	57	1284
Spoon	C. F. Goetheim	21,142	Nov. 3	57	550
Spoon	C. A. Goldsmith	21,072	Sept. 29	56	1568
Spoon	C. F. and F. Greenwood	20,916	July 7	56	1
Spoon	G. P. Griswold	21,051	Sept. 22	56	1452
Spoon, &c.	E. V. Hallett	20,687	Apr. 21	55	291
Spoon, &c.	E. Harris	{ 20,657 20,658 }	Mar. 31	54	1717
Spoon, &c.	J. T. Henderson	21,226	Dec. 8	57	1284
Spoon	R. W. Hess	{ 20,682 20,683 }	Apr. 21	55	291
Spoon	A. M. Hill	{ 20,722 20,723 }	May 19	55	870
Spoon, &c.	E. G. E. Jaccard	20,804	June 2	55	1146
Spoon, &c.	A. F. Jackson	20,787	June 2	55	1146
Spoon, &c.	A. F. Jackson	{ 20,811 to 20,813 }	June 2	55	1146
Spoon, &c.	A. F. Jackson	20,835	June 16	55	1403
Spoon, &c.	A. F. Jackson	20,838	June 16	55	1403
Spoon, &c.	A. F. Jackson	20,863	June 30	55	1656
Spoon, &c.	A. F. Jackson	20,974	Aug. 4	56	531
Spoon, &c.	A. F. Jackson	21,038	Sept. 15	56	1340
Spoon	A. F. Jackson	{ 21,131 to 21,137 }	Oct. 27	57	416
Spoon	H. H. Jacobs	20,822	June 9	55	1280
Spoon	W. A. Jameson	21,077	Sept. 29	56	1568
Spoon, &c.	W. H. Jamouneau	20,871	June 30	55	1656
Spoon, &c.	W. H. Jamouneau	{ 20,942 20,943 }	July 14	56	146
Spoon, &c.	W. H. Jamouneau	20,956	July 21	56	266
Spoon, &c.	W. H. Jamouneau	20,967	July 28	56	401
Spoon, &c.	W. H. Jamouneau	21,252	Dec. 22	57	1600
Spoon	H. T. Jarecki and G. A. Disque	20,897	June 30	55	1656
Spoon, &c.	I. H. Johannes	20,902	June 30	55	1656
Spoon	J. H. Johnston	{ 20,493 to 20,496 }	Feb. 3	54	510
Spoon, &c.	J. H. Johnston	20,668	Apr. 7	55	3
Spoon	J. C. C. Justis	20,726	May 19	55	870
Spoon	J. H. Kaiser	21,054	Sept. 22	56	1452
Spoon, &c.	H. C. Karr	20,781	May 26	55	1002
Spoon, &c.	J. Karr	20,823	June 9	55	1280
Spoon, &c.	S. F. Low	20,978	Aug. 11	56	665

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Design.	Name.	No.	Date.	Official Gazette.	
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Spoon, &c.	R. Leding	20,650	Mar. 31	54	1717
Spoon, &c.	E. R. MacGillivray	20,796	June 2	55	1146
Spoon, &c.	J. W. Maillot	20,782	May 26	55	1002
Spoon	B. Marsh	20,948	July 21	56	266
Spoon	B. Marsh and F. W. Hoffman	{ 20,923 20,924 }	July 7	56	2
Spoon, &c.	D. Mayer	20,904	June 30	55	1656
Spoon	B. J. Mayo	21,175	Nov. 17	57	850
Spoon, &c.	C. M. McFarland	21,165	Nov. 10	57	698
Spoon	J. W. Mealy	21,043	Sept. 15	56	1340
Spoon	H. Mercer	21,144	Nov. 3	57	530
Spoon, &c.	J. A. Merrill and A. Keith	21,017	Aug. 25	56	932
Spoon	W. F. Michael	20,990	Aug. 11	56	686
Spoon	W. F. Michael	21,025	Sept. 1	56	1064
Spoon	W. F. Michael	21,040	Sept. 15	56	1340
Spoon	W. F. Michael	21,127	Oct. 23	57	278
Spoon	M. K. Munson	20,979	Aug. 11	56	666
Spoon	J. E. Officer	21,154	Nov. 3	57	550
Spoon, &c.	C. Osborne	20,636	Mar. 24	54	1566
Spoon	C. Osborne	21,027	Sept. 1	56	1064
Spoon, &c.	E. M. Parker	20,914	July 7	56	1
Spoon, &c.	C. Petersen	20,816	June 2	55	1146
Spoon, &c.	B. Pol	20,961	July 21	56	266
Spoon, &c.	F. A. Robbins	20,893	June 30	55	1656
Spoon	S. F. Roberts	20,712	May 5	55	577
Spoon	C. L. Ruth	21,166	Nov. 10	57	698
Spoon	E. Schall	20,704	Apr. 28	55	436
Spoon, &c.	G. A. Schlechter	21,229	Dec. 8	57	1284
Spoon	G. A. Schlechter	21,239	Dec. 15	57	1432
Spoon, &c.	F. Schwatka	20,832	June 16	55	1403
Spoon	C. Selkirk	20,929	July 7	56	2
Spoon, &c.	W. Sonter	21,167	Nov. 10	57	698
Spoon	E. W. Shannon	20,809	June 2	55	1146
Spoon	G. E. Shaw	21,058	Sept. 22	56	1452
Spoon	J. L. Shepherd	20,798	June 2	55	1146
Spoon	J. T. Sherman	20,705	Apr. 28	55	436
Spoon	C. S. Sherwood	20,858	June 23	55	1534
Spoon	G. W. Shiebler	20,859	June 23	55	1534
Spoon, &c.	G. W. Shiebler	20,920	July 7	56	2
Spoon, &c.	F. H. Sloan	20,537	Mar. 3	54	1117
Spoon	H. A. Spaulding	21,041	Sept. 15	56	1340
Spoon, &c.	G. M. Spear and A. T. Sylvester	20,789	June 2	55	1146
Spoon, &c.	A. A. Sperry	20,776	May 26	55	1002
Spoon, &c.	J. R. Stevens	20,727	May 19	55	870
Spoon, &c.	A. J. Stone	{ 21,268 21,269 }	Dec. 29	57	1725
Spoon	J. F. Thomas	20,987	Aug. 11	56	666
Spoon	W. H. Thurber	20,971	July 28	56	401
Spoon	G. P. Tilton	{ 20,731 to 20,734 }	May 19	55	870
Spoon, &c.	G. P. Tilton	20,931	July 14	56	116
Spoon	J. C. Walk	21,079	Sept. 29	56	1568
Spoon	W. H. Watrous	21,052	Sept. 22	56	1452
Spoon	L. M. Webb	21,193	Dec. 1	57	1135
Spoon, &c.	A. West	20,960	July 21	56	266
Spoon	F. M. Whiting	20,826	June 9	55	1280
Spoon, &c.	C. C. Wientge	20,947	July 14	56	146
Spoon	G. Wilkinson	20,901	June 30	55	1656
Spoon	G. Wilkinson	{ 21,045 21,046 }	Sept. 15	56	1340
Spoon	W. L. Wilks	20,510	Feb. 10	54	666
Spoon	E. D. Williams	20,711	May 5	55	577
Spoon	C. G. Willson	20,900	June 30	55	1656
Spoon	C. G. Willson	21,092	Oct. 6	57	2
Spoon	H. M. Wilson	21,105	Oct. 6	57	2
Spoon	W. E. Wood	21,061	Sept. 22	56	1452
Spoon	H. M. Wright	20,959	July 21	56	266
Spoon	H. G. Peirsons	20,843	June 16	55	1403
Spoon, fork, &c.	G. A. Glahn and G. W. Hull	21,169	Nov. 10	57	698
Spoon or fork	E. Schall	20,584	Mar. 17	54	1422
Spoon or fork handle	H. B. Swart	20,653	Mar. 31	54	1717
Spoon or similar article	J. W. King	20,909	July 7	56	1
Spoon or similar article	C. Osborne	20,910	July 7	56	1
Spoons, &c. Handle for	A. F. Jackson	20,692	Apr. 28	55	435
Spoons, &c. Handle for	M. Scooler	20,698	Apr. 28	55	435
Stage-setting	F. P. Dodge	20,930	July 14	56	146
Stamp, Gummed	F. H. Smith	21,140	Oct. 27	57	416
Stamp handle and base. Rubber	W. E. Banning	21,091	Oct. 6	57	2
Stirrup	G. B. Moulton	20,746	May 19	55	870
Stocking-supporter clasp	G. W. Hoyt	21,090	Sept. 29	56	1568
Stocking-supporter clasp	G. W. Hoyt	21,114	Oct. 13	57	128
Stove	L. Kahn	21,024	Sept. 1	56	1064
Stove	J. S. Van Buren	21,100	Oct. 6	57	2
Stove. Cooking	H. C. Bascom	20,464	Jan. 6	54	2
Stove. Cooking	G. H. Phillips	20,468	Jan. 6	54	2
Stove. Cooking	G. E. Wilbur	20,800	June 2	55	1146
Stove. Heating	H. C. Bascom	20,465	Jan. 6	54	2
Stove. Heating	G. H. Phillips	20,467	Jan. 6	54	2
Stove. Heating	F. Ritchie	{ 20,972 20,973 }	July 28	56	401
Stove. Heating	J. S. Van Buren	20,784	May 26	55	1002
Stove. Heating	G. E. Wilbur	20,785	May 26	55	1002
Stove. Heating	W. H. Wilkinson	20,946	July 14	56	146
Stove. Oil or gas	J. Goldstein and I. Block	20,503	Feb. 3	54	510

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Design.	Name.	No.	Date.	Official Gazette.	
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Stove. Open-front	I. Kahn	20,831	June 16	55	1403
Stove. Open-front	P. Ritchie	21,228	Dec. 8	57	1284
Stove or range. Cooking	B. Bark	21,220	Dec. 8	57	1284
Stove-shelf and support	J. F. Brayer and E. J. King	20,459	Jan. 6	54	2
Stove. Vapor	T. Johnson	20,957	July 21	56	266
Sugar-bowl, &c	G. L. Crowell, Jr	20,667	Apr. 7	55	3
Suspender-clasp	A. Bernstein	20,439	Jan. 6	54	2
Table-cover, &c	T. Mein	21,008	Aug. 25	56	932
Table-cover, &c	T. Mein	21,010	Aug. 25	56	932
Table-cover	J. Pegel	20,981	Aug. 11	56	666
Table-cover, &c	J. Pegel	20,982	Aug. 11	56	666
Table-cover, &c	J. Pegel	20,985	Aug. 11	56	666
Table-cover	J. Pegel	20,986	Aug. 11	56	666
Table-cover	J. Pegel	21,020	Sept. 1	56	1064
Table-cover	J. Pegel	21,023	Sept. 1	56	1064
Table-cover, &c	A. Petzold	20,980	Aug. 11	56	666
Table-cover, &c	A. Petzold	21,009	Aug. 25	56	932
Table-cover, &c	A. Petzold	21,016	Aug. 25	56	932
Table-cover	E. Poole	{ 21,081 }	Sept. 29	56	1568
Table-cover or curtain	J. Pegel	21,002			
Table-cover or curtain	A. Petzold	21,003	Aug. 18	56	807
Table-knife	W. W. Lee	21,180	Nov. 24	57	1006
Table-ware. Ornamentation of	A. J. Stone	21,115	Oct. 13	57	128
Tape	C. Sissen	20,958	July 21	56	266
Tassel	W. E. Oehrle	21,094	Oct. 6	57	2
Tea-canister	W. H. Thorne	20,951	July 21	56	266
Terret. Hip	G. L. Buck	20,479	Jan. 13	54	142
Thinble	H. A. Weibman	20,590	Mar. 17	54	1422
Tile. Roofing	G. H. Babcock	20,635	Mar. 24	54	1566
Tire for wheels. Rubber	W. Phillips	20,824	June 9	55	1280
Tire. India-rubber	C. Coops	20,678	Apr. 14	55	144
Tobacco-plug	D. Harris	21,097	Oct. 6	57	2
Toilet-case	A. F. and A. Brabant	21,200	Dec. 1	57	1136
Toilet-powder box and perfumery-holder	J. F. Lockwood	20,715	May 12	55	719
Toy	T. Whitney	20,706	Apr. 28	55	436
Toy ball. Fancy	S. Amselem	21,060	Sept. 22	56	1452
Toy bank	R. Frisbie	20,579	Mar. 10	54	1270
Toy bank	R. Frisbie	20,646	Mar. 31	54	1716
Toy. Child's	M. M. Herrick	20,484	Jan. 20	54	269
Toy money-bank	D. Cooke	20,794	June 2	55	1146
Toy savings-bank	C. G. Shepard and P. Adams	21,036	Sept. 15	56	1340
Tray	T. Van Kannel	20,928	July 7	56	2
Trimming. Dress	B. Lipper	21,237	Dec. 15	57	1432
Trimming. Dress	B. Lipper	{ 21,263 }	Dec. 22	57	1600
Type. Font of printing	C. H. Beeler, Jr	20,563			
Type. Font of printing	C. H. Beeler, Jr	20,700	Mar. 3	54	1117
Type. Font of printing	C. H. Beeler, Jr	20,700	Apr. 28	55	435
Type. Font of printing	C. H. Beeler	21,141	Nov. 3	57	550
Type. Font of printing	H. Brehmer	20,690	Apr. 28	55	435
Type. Font of printing	C. S. Hazlett and J. West	20,514	Feb. 10	54	666
Type. Font of printing	C. E. Heyer	20,506	Feb. 3	54	510
Type. Font of printing	C. E. Heyer	20,749	May 19	55	870
Type. Font of printing	H. Ihlenburg	{ 20,546 }	Mar. 3	54	1117
Type. Font of printing	H. Ihlenburg	20,547			
Type. Font of printing	H. Ihlenburg	21,101	Oct. 6	57	2
Type. Font of printing	W. W. Jackson	20,589	Mar. 17	54	1422
Type. Font of printing	W. W. Jackson	20,702	Apr. 28	55	436
Type. Font of printing	W. W. Jackson	20,707	Apr. 28	55	436
Type. Font of printing	E. Pechey	21,145	Nov. 3	57	550
Type. Font of printing	J. Schmohl and E. Lauschke	{ 20,515 }	Feb. 10	54	666
Type. Font of printing	J. Schmohl and E. Lauschke	20,516			
Type. Font of printing	J. Schmohl and E. Lauschke	20,778	May 26	55	1002
Type. Font of printing	J. Schmohl and E. Lauschke	21,125	Oct. 20	57	278
Type. Font of printing	G. Schroeder	21,119	Oct. 20	57	278
Type. Font of printing	J. West	20,750	May 19	55	870
Type ornaments. Font of	C. E. Heyer	20,851	June 23	55	1534
Type ornaments. Font of	E. Pechey	21,176	Nov. 17	57	850
Umbrella or parasol handle	L. G. Turner	20,747	May 19	55	870
Vehicle-step	W. A. Schleicher	{ 21,188 }	Dec. 1	57	1135
Vessel	J. Proeger	21,191			
Vessel with perforated cover. Closed	N. Kopp	21,181	Nov. 24	57	1006
Vagon-body	J. Alles and W. N. Fisher	20,566	Mar. 10	54	1269
Wall-paper	C. Booze	20,999	Aug. 18	56	807
Wall-paper	C. P. Roos	21,032	Sept. 15	56	1339
Wash-board	S. R. Sargent	20,457	Jan. 6	54	2
Washer	C. W. Chisholm	20,770	May 19	55	870
Washing-machine box	H. H. Dennis	21,194	Dec. 1	57	1135
Watch-bridge	A. Philippe	20,536	Mar. 3	54	1117
Watch-case	J. C. Duher	20,483	Jan. 13	54	142
Watch-charm	T. Tugby	20,476	Jan. 13	54	142
Watch maker's sign	L. S. Greut	20,485	Jan. 20	54	269
Water-closet bowl	J. C. Beckman	20,460	Jan. 6	54	2
Water-closet bowl	W. S. Cooper	20,869	June 30	55	1656
Water-closet bowl	C. A. Jaynes	20,520	Feb. 17	54	821
Weighing-machine case	H. E. Patterson	20,659	Apr. 7	55	3
Window-catch	H. W. Watson	20,660	Apr. 7	55	3
Window-lock	A. D. Goodwin	20,810	June 2	55	1146
Wooden box	C. E. Estes	20,955	July 21	56	266
Wrench-handle	J. J. Tower	20,669	Apr. 14	55	144
Wrenches. Bar or stock of	R. C. Ellrich	20,932	July 14	56	146
		20,448	Jan. 6	54	2

ALPHABETICAL LIST OF TRADE-MARKS.

Title.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
Accordions	E. Kalbe	19,041	Feb. 17	54	822
Aerated spring-water and ginger ale	L. T. Foss	19,731	June 16	55	1404
Alcohol. Species of wood	Hansen & Smith	18,977	Feb. 10	54	666
Alcohol. Wood	J. A. & W. Bird & Co.	19,278	Apr. 7	55	3
Ale	C. H. Graves & Sons	19,119	Mar. 3	54	1118
Ale	W. Rutledge	18,956	Feb. 10	54	666
Ale and beer	P. Zang Brewing Company	19,888	July 14	56	146
Ale and porter	Ind. Coope & Co	19,718	June 16	55	1404
Ale and stout. Mixed	W. Wirtz	19,351	Apr. 14	55	145
Ale. Ginger	H. L. Millis	19,634	June 2	55	1147
Ale, stout, and porter	J. Labatt	20,449	Dec. 8	57	1284
Ale, stout, and porter	J. Labatt	20,509	Dec. 29	57	1726
Alterative compounds	J. W. Rankin	20,316	Nov. 3	57	551
Alum	Orient Manufacturing Company	18,810	Jan. 6	54	3
Ammonia	New York Coal Tar Chemical Co	19,548	May 19	55	871
Ammonia derivatives	Chemische Fabrik auf Actien, (vormals E. Schering.)	19,855	July 7	56	2
Ammonia preparations for medical purposes	Chemische Fabrik auf Aktien, (vorm. E. Schering.)	19,064	Feb. 24	54	964
Anæsthetic	M. W. Cobb	20,310	Nov. 3	57	551
Anæsthetics or hypnotics	J. Kahlbaum	20,460	Dec. 15	57	1432
Anodyne	Battle & Company Chemists' Corporation.	19,813	June 30	55	1657
Anodyne for infants	J. D. Groves	19,343	Apr. 14	55	145
Anodyne powders	L. P. Walter	20,047	Aug. 18	56	808
Anti-apoplectic water	N. Schwarz	19,559	May 19	55	72
Antidotes for intoxicants	J. D. Groves	19,337	Apr. 14	55	144
Antipyretics	Firm of J. D. Riedel	19,043	Feb. 17	54	822
Antiseptic	Pasteur Chemical Co	19,897	July 21	56	266
Antiseptic	D. F. Shull & Co	19,908	July 21	56	266
Antiseptic and detergent compound	Reed & Carnrick	20,193	Oct. 6	57	2
Antiseptic for internal and external use	New Orleans Medicine Co	20,315	Nov. 3	57	551
Antiseptic powder	M. Challaundes	19,814	June 30	55	1657
Antiseptic solution for internal and external use	L. Barth and D. J. Leathers	19,739	June 23	55	1534
Armpit-shields and hat-linings	P. P. Guillaume	19,396	Apr. 21	55	292
Asbestine pulp	Natural Dam Pulp Company	20,417	Dec. 1	57	1136
Axle-grease	B. Derhake	19,139	Mar. 3	54	1118
Axle-lubricants	S. Hopkins, Jr.	20,000	Aug. 11	56	666
Bacon	F. Whittaker & Sons	18,963	Feb. 10	54	666
Baking-powder	American Pure Food Company	20,105	Sept. 8	56	1208
Baking-powder	G. D. Arbuckle	18,829	Jan. 13	54	142
Baking-powder	Climax Baking Powder Co.	19,819	June 30	55	1658
Baking-powder	G. De Camp	20,127	Sept. 15	56	1340
Baking-powder	J. T. Gilbert	19,857	July 7	56	2
Baking-powder	F. F. Jaques	18,978	Feb. 10	54	666
Baking-powder	E. F. Jones Chemical Company	19,072	Feb. 24	54	964
Baking-powder	L. W. Lincoln	20,163	Sept. 22	56	1452
Baking-powder	Ottoman Calvey Company	20,154	Sept. 22	56	1452
Baking-powder	Star Manufacturing Company	19,735	June 16	55	1404
Baking-powder	Yankee Baking Powder Company	19,685	June 9	55	1280
Bandages and like appliances. Curative or antiseptic	W. Whitaker and R. S. Donisthorpe	20,410	Nov. 24	57	1006
Banjos and banjo-strings	S. S. Stewart	20,378	Nov. 17	57	850
Basins and pitchers. Wash	J. J. Royle	19,492	May 12	55	720
Bath-robos	H. N. Palmer	19,798	June 30	55	1657
Batteries. Galvanic	Manhattan Electrical Supply Company.	20,082	Aug. 25	56	932
Beef and hog products, including lard and tallow	N. Morris & Co	19,515	May 19	55	870
Beef, hog, and sheep products, including lard. Fresh and cured	F. Whittaker & Sons	19,102	Feb. 24	54	964
Beer. Liquid extract of	C. W. and R. B. Robison	18,957	Feb. 10	54	666
Beer	American Brewing Company	20,306	Nov. 3	57	551
Beer	Bavarian Brewing Co.	19,306	Apr. 7	55	4
Beer	C. A. King	20,001	Aug. 11	56	666
Beer	C. Moerlin Brewing Company	19,956	Aug. 4	56	532
Beer	National Brewing Company	18,997	Feb. 10	54	667
Beer	National Brewing Company	18,998	Feb. 10	54	667
Beer	National Brewery Company	20,430	Dec. 1	52	1136
Beer	National Brewery Company	20,431	Dec. 1	57	1136
Beer	O. S. Neale	19,310	Apr. 7	55	4
Beer	Otto Huber Brewery	19,816	June 30	55	1658
Beer, ale, and porter	American Brewing Company	19,738	June 23	55	1534
Beer. Bottled lager	E. Benswanger	18,933	Feb. 3	54	511
Beer. Bottled lager	New Orleans Brewing Association	19,826	June 30	55	1658
Beer. Lager	Albany Steam Bottling Works	20,305	Nov. 3	57	551
Beer. Lager	J. Conrad	19,464	May 12	55	719
Beer. Lager	G. Gluck & Sons	19,307	Apr. 7	55	4
Beer. Lager	George Keller Brewing Company	20,042	Aug. 18	56	808
Beer. Lager	Knoxville Brewing Company	19,010	Feb. 10	54	667
Beer. Lager	Louis Bergdoll Brewing Company	20,045	Aug. 18	56	808
Beer. Lager	Singer & Wheeler	19,990	Aug. 4	56	532
Beer. Manufactured non-intoxicating	O. S. Neale	19,860	July 7	56	2

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Title.	Name.	No.	Date.	Official Gazette.	
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Belting	Boston Woven Hose Company	19,695	June 16	55	1404
Belting. Leather	Fayerweather & Ladew	20,441	Dec. 8	57	1284
Belting. Leather	Main Belting Company	18,807	Jan. 6	54	3
Belting. Leather	G. W. Snider	20,446	Dec. 8	57	1284
Belting of leather and other flexible material	Jewell Belting Company	20,269	Oct. 27	57	416
Belting. Rubber	New York Belting and Packing Company	19,844	July 7	56	2
Belts. Driving	Rosendale Belting Company	19,470	May 12	55	720
Beverage containing ginger	W. C. Hickox	18,953	Feb. 10	54	666
Beverages. Aerated and non-alcoholic	Hadkins Bottling Co.	19,411	Apr. 28	55	436
Beverages. Aerated non-spirituons	F. M. Dunbar	20,486	Dec. 22	57	1600
Bibles, testaments, and devotional books	Eyre & Spottiewood	19,512	May 19	55	870
Bicycles	Gormully & Jeffery Manufacturing Company	19,553	May 19	55	871
Bicycles	Keefe & Becannon	19,296	Apr. 7	55	3
Bicycles and tricycles	Gormully & Jeffery Manufacturing Company	19,552	May 19	55	871
Bicycles and tricycles	A. G. Spalding & Bros.	19,172	Mar. 10	54	1270
Bicycles and tricycles	A. G. Spalding & Bros.	19,173	Mar. 10	54	1270
Bicycles. Safety	G. R. Bidwell Cycle Company	19,886	July 14	56	146
Bicycles, tricycles, and other cycles	G. L. Morris and W. T. Wilson	19,157	Mar. 10	54	1270
Bicycles, tricycles, and parts thereof	Eagle Bicycle Manufacturing Company	19,220	Mar. 24	54	1566
Bicycles, tricycles, and velocipedes	Warman & Hazlewood	19,953	July 28	56	402
Billiard-cloth	Peltzer & Son	19,733	June 16	55	1404
Bird-cages	O. Lindemann & Co.	20,128	Sept. 15	56	1240
Biscuits	C. D. Boss & Son	18,561	May 26	55	1002
Biscuits, crackers, wafers, cakes, and kindred articles	New York Biscuit Company	18,894	Jan. 20	54	270
Bismuth. Basic gallate of	Farbwerke, vormals Meister, Lucius & Brüning	20,156	Sept. 22	56	1452
Bitters	G. S. Fleming	18,915	Feb. 3	54	510
Bittere	J. Grossman	20,324	Nov. 3	57	551
Bitters	F. W. Hartmann & Co.	20,531	Dec. 29	57	1726
Bitters	J. Talford	19,893	July 21	56	266
Bitters	Von Glahn Bros.	20,252	Oct. 20	57	278
Bitters. Kidney and liver	J. J. Spieker	19,348	Apr. 14	55	145
Bitters, liniment, cough-balsam, sarsaparilla, chilblains and corn remedy, and hair-tonic	D. F. Coles Drug and Manufacturing Company	20,311	Nov. 3	57	551
Bitters. Pale orange	J. H. Membrey	19,092	Feb. 24	54	964
Bitters. Stomach	P. C. Lutz and W. W. Cantwell	20,461	Dec. 15	57	1432
Blackboards. Plastic material for coating	K. W. Whittemore	19,583	May 26	55	1003
Blacking. Liquid shoe and harness	A. Castaing	18,780	Jan. 6	54	2
Blacksmiths' and machinists' small tools, including taps, dies, and the like	J. M. Carpenter Tap and Die Company	19,951	July 28	56	402
Bleaching-fluid. Laundry	Bess Machine Company	20,359	Nov. 10	57	699
Blood-purifier	P. Fahrney	19,316	Apr. 14	55	144
Blood-purifier	P. Fahrney	19,317	Apr. 14	55	144
Blue. Washing	Webb Manufacturing Company	18,820	Jan. 6	54	3
Boards made of compressed wood and straw pulp	American Straw Board Company	18,734	June 16	55	1404
Boiler-scales. Compound for removing	Diamond Compound Co.	19,105	Mar. 3	54	1117
Books and indexes. Letter	R. R. Vernon	19,136	Mar. 3	54	1118
Boots and shoes	Brennan & White	19,694	June 16	55	1404
Boots and shoes	M. C. Dizer & Co.	20,037	Aug. 13	56	808
Boots and shoes	W. L. Douglas Shoe Company	20,040	Aug. 18	56	808
Boots and shoes	J. B. Lewis	19,756	June 23	55	1334
Boots and shoes	Little, Maxwell & Co.	20,436	Dec. 1	57	1136
Boots and shoes	J. Means	19,575	May 26	55	1002
Boots and shoes	J. Means	19,576	May 26	55	1002
Boots and shoes	Norman & Bennett	18,934	Feb. 3	54	511
Boots and shoes	Rice & Hutchins	18,971	Feb. 10	54	666
Boots and shoes	Rockford Shoe Company	19,516	May 19	55	870
Boots and shoes. Leather-dressing for	S. A. White	19,640	June 2	55	1147
Boots and shoes. Machine-sewed	Goodyear Shoe Machinery Company	19,350	Apr. 14	55	145
Boots and shoes. Polishing material for	S. A. White	19,639	June 2	55	1147
Boots and shoes. Rubber	E. B. Preston	20,012	Aug. 11	56	666
Boots and shoes. Rubber	E. B. Preston	20,013	Aug. 11	56	666
Boots, shoes, and lasts	H. E. Smith & Co.	18,935	Feb. 3	54	511
Boots, shoes, and shoe-laces	J. K. Krieg & Co.	18,868	Jan. 20	54	270
Boots, shoes, and slippers	M. Woodbury	18,974	Feb. 10	54	666
Bottles for mucilage and ink	W. F. Litch	19,414	Apr. 23	55	436
Braids	H. Newman	19,216	Mar. 24	54	1566
Braids and bindings	M. M. Beeman	19,872	July 14	56	146
Braids and buttons	E. Crager & Co.	20,057	Aug. 18	56	808
Braids and tailors' trimmings	Butler, Richards & Balas Frères	20,372	Nov. 17	57	850
Brandy	E. R. Martin & Co.	18,920	Feb. 3	54	510
Brandy	E. R. Martin & Co.	18,921	Feb. 3	54	510
Brandy	E. R. Martin & Co.	18,922	Feb. 3	54	510
Brandy	E. R. Martin & Co.	18,923	Feb. 3	54	510
Brandy	E. R. Martin & Co.	18,982	Feb. 10	54	667
Brandy	J. Robin & Co.	19,409	Apr. 28	55	436
Brandy	J. Robin & Co.	20,184	Oct. 6	57	2
Brandy, whisky, rum, gin, wine, cordials, and bitters	Libhrs & Hars	20,275	Oct. 27	57	416
Brass and copper sheets, tubing, and wire	Bridgeport Brass Company	18,843	Jan. 13	54	142
Bread	L. Fleischmann	19,354	Apr. 11	55	145
Bristles used in making brushes	F. A. Maury-Deschamps	19,407	Apr. 28	55	436
Bristles used in making brushes	F. A. Maury-Deschamps	19,408	Apr. 28	55	436
Broadcloth	Lord & Taylor	20,338	Nov. 10	57	698
Bronze. Manganese	B. H. Cramp & Co.	18,824	Jan. 13	54	142
Bronze-powder	Piper, Doremus & Co.	20,444	Dec. 8	57	1284
Brushes and combs	F. A. Maury-Deschamps	19,704	June 16	55	1404
Brushes. Tooth	Florence Manufacturing Company	20,086	Aug. 25	56	932
Buckskin underwear. Perforated	D. C. Hall	19,055	Feb. 17	54	822
Butter	Reist, Nissly & Co.	18,812	Jan. 6	54	3
Butter and butterine	Armour Packing Co.	19,174	Mar. 17	54	1422

Alphabetical list of trade-marks—Continued.

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Button-fasteners.....	Anchor Button Fastener Company..	19,061	Feb. 24	54	963
Button-fasteners.....	J. K. Krieg & Co.....	19,737	June 16	55	1404
Buttons and braids.....	E. Crager & Co.....	20,056	Aug. 18	56	808
Buttons, braids, buckles, galloons, and bindings.....	E. Crager & Co.....	20,059	Sept. 1	56	1064
Buttons. Glass and jet.....	L. Prange.....	18,776	Jan. 6	54	2
Buttons. Jet.....	L. Prange.....	18,874	Jan. 20	54	270
Buttons. Jet.....	L. Prange.....	18,875	Jan. 20	54	270
Buttons. Jet.....	L. Prange.....	18,876	Jan. 20	54	270
Buttons. Jet.....	L. Prange.....	20,303	Nov. 3	57	550
Buttons. Pearl.....	Standard Pearl Button Company.....	20,472	Dec. 22	57	1600
Cakes. Fancy.....	J. W. Ettel.....	18,800	Jan. 6	54	3
Candies.....	Costello & Co.....	18,836	Jan. 13	54	142
Candies.....	Doniphan & Co.....	20,373	Nov. 17	57	850
Candy.....	Roberts & Whitcomb.....	20,358	Nov. 10	57	699
Candy. Peculiar species of.....	G. F. Ordway.....	20,074	Aug. 25	56	932
Candy. Pipe.....	Chase & Company Corporation.....	20,034	Aug. 18	56	808
Candy. Pipe.....	Chase & Company Corporation.....	20,144	Sept. 15	56	1340
Candy tablets.....	T. Candy.....	19,293	Apr. 7	55	3
Candy. Small sugared sticks of.....	Chase & Company Corporation.....	20,033	Aug. 18	56	808
Candy. Small sugared sticks of.....	Chase & Company Corporation.....	20,178	Sept. 29	56	1568
Candles.....	A. Mandel.....	18,870	Jan. 20	54	270
Canned and preserved foods and table delicacies.....	A. Eyaquem.....	18,781	Jan. 6	54	2
Canned and preserved meats.....	Miller, Hendricks & Co.....	19,801	June 30	55	1657
Canned fish, fruits, and vegetables.....	Oyster Cultivation and Canning Company.....	18,789	Jan. 6	54	3
Canned fruits and vegetables.....	A. Booth Packing Company.....	20,142	Sept. 15	56	1340
Canned fruits and vegetables.....	A. Booth Packing Company.....	20,143	Sept. 15	56	1340
Canned fruits and vegetables.....	A. Booth Packing Company.....	20,158	Sept. 22	56	1452
Canned fruits and vegetables.....	D. W. Archer.....	19,999	Aug. 11	56	666
Canned fruits and vegetables.....	D. W. Archer.....	20,031	Aug. 18	56	808
Canned fruits and vegetables.....	D. W. Archer.....	20,432	Dec. 1	57	1136
Canned fruits and vegetables, catsups, preserves, jellies, and baking-powder.....	Wilson Grocery Company.....	19,669	June 9	55	1280
Canned fruits, vegetables, meat, and fish.....	Portland Packing Co.....	19,620	June 2	55	1146
Canned fruits, vegetables, meat, and fish.....	Portland Packing Co.....	19,621	June 2	55	1146
Canned fruits, vegetables, meat, and fish.....	Portland Packing Co.....	19,622	June 2	55	1146
Canned fruits, vegetables, meat, and fish.....	Portland Packing Co.....	19,623	June 2	55	1146
Canned fruits, vegetables, meat, and fish.....	Portland Packing Co.....	19,624	June 2	55	1147
Canned fruits, vegetables, meat, and fish.....	Portland Packing Co.....	19,625	June 2	55	1147
Canned fruits, vegetables, meat, and fish.....	Portland Packing Co.....	20,469	Dec. 15	57	1432
Canned goods.....	Maconochie Bros.....	20,276	Oct. 27	57	416
Canned goods.....	Maconochie Bros.....	20,277	Oct. 27	57	416
Canned meats, fish, fruits, vegetables, and mince-meat.....	Morrell & Soule.....	19,929	July 28	56	402
Canned salmon.....	J. O. Hanthorn & Co.....	20,098	Sept. 1	56	1064
Canned salmon.....	J. W. Hume.....	20,106	Sept. 8	56	1208
Canned salmon.....	R. D. Hume.....	18,783	Jan. 6	54	2
Canned salmon.....	R. D. Hume.....	18,930	Feb. 3	54	511
Canned tomatoes and other edibles.....	North Manchester Fruit Preserving and Canning Company.....	20,157	Sept. 22	56	1432
Car-couplings.....	Standard Car Coupling Company.....	19,433	May 5	55	578
Car-couplings.....	Thurmond Car Coupling Company.....	19,889	July 14	56	146
Caramels.....	Venneker-Morris Candy Company.....	20,426	Dec. 1	57	1136
Caramels and candies.....	Lancaster Caramel Co.....	18,942	Feb. 3	54	511
Carbolic acid.....	Rogers & Pyatt.....	20,340	Nov. 10	57	698
Carbolic smoke ball for the cure of influenza, colds, catarrh, headache, and hay-fever.....	F. A. Roe.....	20,249	Oct. 20	57	278
Card-board, paper, and envelopes.....	Union Company.....	19,380	Apr. 21	55	292
Card-clothing.....	Mechanical Fabric Company.....	18,887	Jan. 20	54	270
Carlsbad powder. Effervescent.....	S. Kutnow and Co.....	19,422	May 5	55	578
Carpet-chain.....	J. W. Diferderfer.....	20,228	Oct. 13	57	128
Carpet-cleansing and renovating solutions.....	J. Laurie and E. Thompson.....	20,101	Sept. 1	56	1064
Carpet-lining. Paper.....	E. H. Bailey.....	19,993	Aug. 11	56	666
Carpet-warps.....	J. W. Diferderfer.....	20,229	Oct. 13	57	128
Carpets composed chiefly of cork and oil.....	Krauss & Meehan.....	19,513	May 19	55	870
Carriages, cutters, sleighs, and vehicle parts.....	T. Neville.....	20,443	Dec. 8	57	1284
Cartridge shells and wads.....	Creedmoor Cartridge Company.....	19,058	Feb. 17	54	822
Cartridges for fire-arms.....	Creedmoor Cartridge Company.....	18,777	Jan. 6	54	2
Cartridges. Shell.....	Von Lengerke & Detmold.....	20,368	Nov. 10	57	699
Carts and carriages.....	S. D. Palmer.....	20,213	Oct. 13	57	128
Castor-oil.....	A. B. Richards Medicine Co.....	18,925	Feb. 3	54	510
Catsups, table-sauce, pickles, and relishes.....	Mullen-Blackledge Company.....	18,996	Feb. 10	54	667
Canstic soda, chlorates, bleaching-powder, soda ash, soda crystals, and bicarbonates.....	United Alkali Company.....	20,027	Aug. 11	56	666
Cement.....	Braunschweiger Cementwerke.....	19,874	July 14	56	146
Cement.....	Dickinson Bros. & King.....	19,020	Feb. 17	54	821
Cement.....	E. Lloyd.....	19,228	Mar. 24	54	1566
Cement and plaster.....	Silicon Wall Plaster and Manufacturing Company.....	19,086	Feb. 24	54	964
Cement for leather and similar material.....	Boston Blacking Co.....	20,402	Nov. 24	57	1006
Cement. Hydraulic.....	New Albany Cement Company.....	19,582	May 26	55	1002
Cements.....	McLean & Company.....	20,148	Sept. 15	56	1340
Cements. Builders'.....	McLean & Company.....	20,073	Aug. 25	56	932
Chains, bracelets, charms, and lockets.....	W. & S. Blackinton.....	19,593	May 26	55	1003
Chains, bracelets, charms, lockets, and similar articles.....	W. & S. Blackinton.....	19,537	May 19	55	871
Chains, bracelets, charms, lockets, and similar jewelry.....	W. & S. Blackinton.....	19,594	May 26	55	1003
Chains, bracelets, lockets, charms, and like articles. Solid and plated.....	W. & S. Blackinton.....	19,539	May 19	55	871
Chains, bracelets, lockets, charms, and similar articles. Plated and solid.....	W. & S. Blackinton.....	19,538	May 19	55	871
Chains. Vest.....	D. C. Percival & Co.....	19,011	Feb. 10	54	667
Chains. Vest.....	D. C. Percival & Co.....	19,012	Feb. 10	54	667
Chains. Vest.....	D. C. Percival & Co.....	19,283	Apr. 7	55	3
Champagne.....	Bostwick, Rieck & Co.....	20,411	Dec. 1	57	1136
Champagne.....	E. Perré & Co.....	18,790	Jan. 6	54	3

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Champagne	Veuve Pommery, Fils & Co	19,900	July 21	56	266
Champagne	Veuve Pommery, Fils & Co	19,901	July 21	56	266
Champagne-wine	C. Arnaud & Co	20,470	Dec. 22	57	1600
Champagne-wines	G. Goulet & Co	20,335	Nov. 10	57	698
Champagnes	E. Irroy & Co	19,183	Mar. 17	54	1422
Cheese	Chandler & Rudd Company	20,511	Dec. 29	57	1726
Cheese	A. Ethridge & Co	20,183	Oct. 6	57	2
Cheese	J. S. Martin & Co	19,732	June 16	55	1404
Chemicals. Certain named	Chemische Fabrik auf Actien, vormals E. Schering	18,825	Jan. 13	54	142
Chemicals for increasing the combustion of fuel	Standard Coal and Fuel Company	19,051	Feb. 24	54	964
Chemicals for increasing the combustion of fuel	Standard Coal and Fuel Company	19,580	May 26	55	1002
Cheroots	H. Rosenberg	19,435	May 5	55	578
Chicken-cholera powder	J. H. Brown & Co	19,812	June 30	55	1657
Chicken-cholera powder	J. H. Brown & Co	20,114	Sept. 8	56	1208
Chocolate candies	N. L. Griswold & Co	19,822	June 30	55	1658
Chocolate. Sweet	H. L. Pierce	19,802	June 30	55	1657
Chucks	Westcott Chuck Company	19,326	Apr. 14	55	144
Cider	L. C. Younger	20,467	Dec. 15	57	1432
Cigarette-paper	W. Demuth & Co	18,900	Jan. 27	54	394
Cigarettes	Compagnie La Ferme	19,939	July 28	56	402
Cigarettes and cut tobacco	P. Rabell	20,203	Oct. 6	57	2
Cigarettes and cut tobacco	P. Rabell	20,204	Oct. 6	57	2
Cigarettes. Fine	Ledger, Smith & Co	20,246	Oct. 20	57	278
Cigars	C. Alvarez	18,856	Jan. 20	54	270
Cigars	C. Alvarez	18,857	Jan. 20	54	270
Cigars	I. Alvarez	19,536	July 28	56	402
Cigars	I. Alvarez	19,947	July 28	56	402
Cigars	J. Alvarez & Co	19,262	Mar. 31	54	1718
Cigars	J. Alvarez & Co	19,274	Apr. 7	55	3
Cigars	M. Alvarez	19,495	May 12	55	720
Cigars	M. Alvarez	19,496	May 12	55	720
Cigars	S. Alvarez & Co	19,362	Apr. 21	55	291
Cigars	S. Alvarez & Co	19,591	May 26	55	1003
Cigars	Y. Alvarez	19,585	May 26	55	1003
Cigars	L. Arenal & Co	18,848	Jan. 20	54	269
Cigar	L. Arenal & Co	18,849	Jan. 20	54	269
Cigars	L. Arenal & Co	18,850	Jan. 20	54	270
Cigars	L. Arenal & Co	18,851	Jan. 20	54	270
Cigars	J. B. Axt	19,894	July 21	56	266
Cigars	S. Azcano	18,964	Feb. 10	54	666
Cigars	S. Azcano	18,965	Feb. 10	54	666
Cigars	S. Azcano y Meana	19,263	Mar. 31	54	1718
Cigars	S. Azcano y Meana	19,273	Apr. 7	55	3
Cigars	J. B. Brugger	20,309	Nov. 3	57	551
Cigars	V. Bustillo & Brother	19,264	Mar. 31	54	1718
Cigars	V. Bustillo & Brother	19,267	Mar. 31	54	1718
Cigars	V. Bustillo & Brother	19,268	Mar. 31	54	1718
Cigars	V. Bustillo & Brother	19,269	Mar. 31	54	1718
Cigars	V. Bustillo & Brother	19,270	Mar. 31	54	1718
Cigars	V. Bustillo & Brother	19,271	Mar. 31	54	1718
Cigars	V. Bustillo & Brother	19,272	Mar. 31	54	1718
Cigars	V. Bustillo & Brother	19,275	Apr. 7	55	3
Cigars	V. Bustillo & Brother	19,276	Apr. 7	55	3
Cigars	V. Bustillo & Brother	19,277	Apr. 7	55	3
Cigars	B. Celorio & Co	18,858	Jan. 20	54	270
Cigars	B. Celorio & Co	18,859	Jan. 20	54	270
Cigars	B. Celorio & Co	20,173	Sept. 29	56	1568
Cigars	Chao, Alvarez & Co	19,497	May 12	55	720
Cigars	Chao, Alvarez & Co	19,498	May 12	55	720
Cigars	Cortina & Gomez	18,853	Jan. 20	54	270
Cigars	Cortina & Gomez	18,854	Jan. 20	54	270
Cigars	Cortina & Gomez	18,855	Jan. 20	54	270
Cigars	L. W. Davis	19,499	May 12	55	720
Cigars	J. Dzalyuski	18,860	Jan. 20	54	270
Cigars	Fernandez, Corral & Co	19,675	June 9	55	1280
Cigars	Fernandez, Corral & Co	19,676	June 9	55	1280
Cigars	Fernandez, Corral & Co	19,697	June 16	55	1404
Cigars	Fernandez, Corral & Co	19,698	June 16	55	1404
Cigars	Gabrio & Spitz	19,146	Mar. 3	54	1118
Cigars	F. Garcia	19,568	May 26	55	1002
Cigars	Garcia & Co	19,365	Apr. 21	55	291
Cigars	Garcia & Co	19,366	Apr. 21	55	291
Cigars	Garcia & Co	19,367	Apr. 21	55	291
Cigars	Garcia & Co	19,368	Apr. 21	55	291
Cigars	Y. P. Garcia	19,382	Apr. 21	55	292
Cigars	J. Gener	19,887	July 14	56	146
Cigars	W. Graf & Co	19,677	June 9	55	1280
Cigars	Grommes & Ullrich	19,279	Apr. 7	55	3
Cigars	E. G. Haight	20,349	Nov. 10	57	699
Cigars	E. L. Horn	20,382	Nov. 17	57	850
Cigars	W. J. Houston & Co	20,396	Nov. 24	57	1006
Cigars	G. A. Kent & Co	20,118	Sept. 8	56	1208
Cigars	H. H. Knollenberg	19,598	May 26	55	1003
Cigars	A. Lopez y Gonzalez	19,597	May 26	55	1003
Cigars	A. Lopez y Gonzalez	20,174	Sept. 29	56	1568
Cigars	R. Lopez	19,506	May 12	55	720
Cigars	R. Lopez	19,599	May 26	55	1003
Cigars	Lopez & Co	19,397	Apr. 21	55	292
Cigars	Lozano, Pendas & Co	19,372	Apr. 21	55	291
Cigars	R. G. Marques Co	19,373	Apr. 21	55	291
Cigars	R. G. Marques Co	19,374	Apr. 21	55	291
Cigars	D. Mendiz & Co	20,202	Oct. 6	57	2
Cigars	F. Menendez	19,588	May 26	55	1003

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Cigars.....	F. Menendez.....	19,589	May 26	55	1003
Cigars.....	F. Menendez y Martinez.....	18,871	Jan. 20	54	270
Cigars.....	F. Menendez y Martinez.....	18,872	Jan. 20	54	270
Cigars.....	F. Menendez y Martinez.....	18,873	Jan. 20	54	270
Cigars.....	J. Menendez.....	19,504	May 12	55	729
Cigars.....	J. Menendez.....	19,587	May 26	55	1003
Cigars.....	J. D. Meyer.....	19,100	Feb. 24	54	9 4
Cigars.....	Miniehino & Lafauci.....	19,371	Apr. 21	55	291
Cigars.....	J. S. Murias & Co.....	19,265	Mar. 31	54	1718
Cigars.....	J. S. Murias & Co.....	19,478	May 12	55	720
Cigars.....	A. Ramirez.....	19,376	Apr. 21	55	291
Cigars.....	Rhodo & Hoffmann.....	19,931	July 28	56	402
Cigars.....	Riehman & Peterson.....	18,970	Feb. 16	54	666
Cigars.....	J. Saavedra.....	18,877	Jan. 20	54	270
Cigars.....	J. Saavedra.....	18,878	Jan. 20	51	270
Cigars.....	J. Saavedra.....	18,879	Jan. 20	54	270
Cigars.....	J. Saavedra.....	18,880	Jan. 20	54	270
Cigars.....	J. Saavedra.....	18,881	Jan. 20	54	270
Cigars.....	M. Schendel.....	20,420	Dec. 1	57	1136
Cigars.....	B. Suarez y Gonzalez.....	18,861	Jan. 20	54	270
Cigars.....	B. Suarez y Gonzalez.....	18,862	Jan. 20	51	270
Cigars.....	B. Suarez y Gonzales.....	19,507	May 12	55	720
Cigars.....	B. Suarez y Gonzales.....	19,596	May 26	55	1003
Cigars.....	B. Suarez y Gonzalez.....	20,435	Dec. 1	57	1136
Cigars.....	C. Suarez.....	19,377	Apr. 21	55	291
Cigars.....	C. Suarez.....	19,378	Apr. 21	55	291
Cigars.....	C. Saurez.....	19,379	Apr. 21	55	291
Cigars.....	J. Suarez y Gonzalez.....	19,285	Apr. 7	55	3
Cigars.....	J. Suarez y Gonzalez.....	19,286	Apr. 7	55	3
Cigars.....	The Firm of Delmonico's.....	20,403	Nov. 24	57	1006
Cigars.....	M. Valle & Co.....	19,381	Apr. 21	55	292
Cigars.....	M. C. Vega.....	20,177	Sept. 29	56	1568
Cigars.....	J. Villamil & Co.....	19,266	Mar. 31	54	1718
Cigars.....	J. Ybaseta.....	19,287	Apr. 7	55	3
Cigars.....	J. Ybaseta.....	19,288	Apr. 7	55	3
Cigars.....	J. Ybaseta.....	19,289	Apr. 7	55	3
Cigars and cigarettes.....	Columbia Dome Cigar Manufacturing Company.....	20,236	Oct. 20	57	278
Cigars and tobacco.....	G. F. Davenport.....	19,067	Feb. 24	54	964
Cigars, cigarettes, and manufactured tobacco.....	J. Gener.....	19,117	Mar. 3	54	1118
Cigars, cigarettes, and manufactured tobacco.....	J. Gener.....	19,118	Mar. 3	54	1118
Cigars, cigarettes, and manufactured tobacco.....	J. Gener.....	19,280	Apr. 7	55	3
Cigars, cigarettes, and smoking and chewing tobacco.....	D. Buchner & Co.....	19,836	July 7	56	2
Clay. China and similar.....	Lower Lansalson China Clay (Kaolin) Company.....	20,265	Oct. 27	57	416
Cleaning and polishing preparations.....	Leatherol Co.....	19,974	Aug. 4	56	532
Clocks.....	Ansonia Clock Company.....	19,551	May 26	55	1002
Clothing. Children's.....	W. W. Morgan & Co.....	18,808	Jan. 6	54	3
Clothing for men and boys.....	O. Wilesky.....	18,962	Feb. 10	54	666
Coal. Cannel.....	Macfarlane & Mordue.....	19,239	Mar. 31	54	1717
Coats. Men's and boys'.....	J. A. Tucker.....	19,918	July 21	56	266
Coca-wine.....	J. Morningstar.....	20,133	Sept. 15	56	1340
Cocoa.....	C. J. Van Houten & Zoon.....	18,908	Jan. 27	54	394
Cocoa. Breakfast.....	H. L. Pierce.....	20,319	Nov. 3	57	551
Cod-liver oil.....	F. Paulsen & Co.....	20,406	Nov. 24	57	1006
Cod-liver oil.....	O. Wasboe.....	19,048	Feb. 17	54	822
Coffee.....	A. Montamat.....	20,222	Oct. 13	57	128
Coffee.....	A. Montamat.....	20,256	Oct. 27	57	416
Coffee.....	New Orleans Coffee Company.....	18,907	Jan. 27	54	394
Coffee.....	J. G. Nottter Coffee Company.....	19,442	May 5	55	578
Coffee. Artificial.....	Clark & Alden.....	19,329	Apr. 14	55	144
Coffee. Composition.....	J. E. Burns.....	19,104	Mar. 3	54	1117
Coffee-essence.....	Pfeiffer & Diller.....	20,130	Sept. 15	56	1340
Coffee extract.....	A. Venino.....	19,416	May 5	55	577
Coffee-extract. Prepared.....	Condensed Coffee Company.....	19,755	June 23	55	1534
Coffee. Mocha, Java, and Rio.....	Woolson Spice Company.....	19,177	Mar. 17	54	1122
Coffee, tea, and spices.....	G. F. Gilman.....	18,863	Jan. 20	54	270
Cognac.....	J. Robin & Co.....	19,606	May 26	55	1003
Collars and cuffs.....	C. H. McClellan.....	19,601	May 26	55	1003
Collars and cuffs. Men's.....	Moseley & Moody.....	19,467	May 12	55	720
Collars, cuffs and shirt-fronts.....	J. M. Clinton.....	20,004	Aug. 11	56	666
Colors. Coal-tar.....	H. Kohnstamm & Co.....	19,825	June 30	55	1658
Cooking vessels. Sheet-metal.....	Bronson Supply Company.....	19,706	June 16	55	1404
Combs.....	F. A. Maurey-Deschamps.....	19,180	Mar. 17	54	1432
Combs. Toilet.....	F. A. Maurey-Deschamps.....	19,181	Mar. 17	54	1432
Condition-powder.....	D. H. Hawks.....	20,072	Aug. 25	56	932
Confection-lozenges.....	Chase and Company Corporation.....	19,030	Feb. 17	54	822
Confectionery.....	S. F. Whitman & Son.....	20,103	Sept. 1	56	1064
Confectionery.....	P. Wunderte.....	19,135	Mar. 3	51	1118
Constipation. Cure for.....	Sutliff & Co.....	20,119	Sept. 8	56	1208
Copper polish.....	J. Grether.....	18,802	Jan. 6	54	3
Copper. Refined.....	Lewisohn Brothers.....	20,230	Oct. 20	57	278
Cordial. Anisette.....	Les Heritiers de Marie Brizard & Roger, M. B. Giotin, Achard & Giotin.....	19,556	May 19	55	872
Cordials.....	Hulstkamp, Zoon & Molyn.....	19,071	Feb. 24	54	964
Cordials and tonics.....	O. G. Sercombe.....	19,339	Apr. 14	55	144
Cornmeal.....	Glover & Allen.....	20,071	Aug. 25	56	932
Corsets.....	Armstrong, Cator & Co.....	19,103	Mar. 3	54	1117
Corsets.....	Bortree Manufacturing Company.....	19,401	Apr. 28	55	436
Corsets.....	A. F. Jammes.....	18,917	Feb. 3	54	510
Corsets.....	E. Schweinburg.....	20,304	Nov. 3	57	550
Corsets.....	J. Siegel & Co.....	20,503	Dec. 29	57	1726
Corsets.....	Worcester Corset Company.....	19,707	June 16	55	1404

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Corsets and trimmings therefor	I. Newman & Sons	19,713	June 16	55	1404
Corsets, waists, and shoulder-braces	E. J. Swartwout	19,093	Feb. 24	54	964
Cosmetic	J. W. Angell	19,400	Apr. 28	55	436
Cosmetic	A. H. Bullock	19,536	May 19	55	871
Cosmetic	South Bend Medicine Company	19,945	July 28	56	402
Cosmetic	B. Westervelt	20,294	Nov. 3	57	550
Cosmetic. Liquid	E. Price	20,257	Oct. 27	57	416
Cosmetics, powders, and rouge	M. L. Allen	19,641	June 2	55	1147
Cotton and silk goods and hosiery. Woven	Sylvester, Bell & Co	19,592	May 26	55	1003
Cotton and woolen fabrics	China and Japan Trading Company	19,643	June 2	55	1147
Cotton cloth. Twilled	Sharpless Bros	19,360	Apr. 14	55	145
Cotton. Crochet	Clark Thread Company	20,049	Aug. 18	56	808
Cotton. Crochet	Clark Thread Company	20,050	Aug. 18	56	808
Cotton. Crochet	Clark Thread Company	20,051	Aug. 18	56	808
Cotton. Darning	Clark Thread Company	20,051	Aug. 18	56	808
Cotton. Darning	Clark Thread Company	20,052	Aug. 18	56	808
Cotton. Darning	Clark Thread Company	20,055	Aug. 18	56	808
Cotton draperies, table-cloths, and similar goods	R. W. Kendall & Co	20,337	Nov. 10	57	698
Cotton fabrics	Eddystone Manufacturing Company	19,211	Mar. 24	54	1566
Cotton fabrics	J. W. Woods	18,996	Jan. 20	54	270
Cotton fabrics for dress goods, draperies, and decorations. Single-colored	J. A. Hearn & Son	19,749	June 23	55	1534
Cotton goods	Neuss, Hesslein & Co.	19,691	June 9	55	1220
Cotton goods. Bleached	Berkshire Cotton Manufacturing Company	20,384	Nov. 17	57	850
Cotton goods. Printed	Denny, Poor & Co	19,395	Apr. 21	55	292
Cotton goods, such as lawns, cambrics, &c	King Philip Mills	20,196	Oct. 6	57	2
Cotton, linen, hemp, and silk piece goods, woolen cloths, and worsted stuffs	J. Maddocks	19,763	June 23	55	1534
Cotton, linen, hemp, and silk piece goods, woolen cloths, and worsted stuffs	J. Maddocks	19,764	June 23	55	1534
Cotton or cotton thread. Spool	J. & P. Coats	20,527	Dec. 29	57	1726
Cotton pile fabrics, velveteens, and plushes	J. Dongan & Co	20,145	Sept. 15	56	1340
Cotton. Spool	Clark Thread Company	20,053	Aug. 18	56	808
Cotton thread	Clark Thread Company	20,528	Dec. 29	57	1726
Cotton thread	Clark Thread Company	20,529	Dec. 29	57	1726
Cotton thread	Clark Thread Company	20,530	Dec. 29	57	1726
Cotton thread or spool-cotton	J. & P. Coats	20,526	Dec. 29	57	1726
Cottons. Colored and prepared raw	D. Mackintosh & Sons Company	19,600	May 26	55	1003
Cough-drops	C. E. Davis and A. Schindele	20,440	Dec. 8	57	1284
Cough-drops	A. M. Greule	18,940	Feb. 3	54	511
Cough drops or tablets	H. F. Prien and W. M. Gray	20,320	Nov. 3	57	551
Cough mixture	W. G. Telfair	20,063	Aug. 18	56	808
Cough-sirup and cough-drops	F. A. Robbins	19,142	Mar. 3	54	1118
Cough-sirup and liver-pills	Ryan Chemical Company	19,648	June 2	55	1147
Cough-sirups and blood-purifiers	E. Speidel	20,062	Aug. 18	56	808
Cough-sirups, liniments, and blood-purifiers	Home Remedy Company	20,176	Sept. 29	56	1568
Crackers	W. L. Johnson	20,506	Dec. 29	57	1726
Crackers and biscuit	United States Baking Company	20,122	Sept. 8	56	1208
Creamers. Centrifugal	G. Young	19,059	Feb. 17	54	822
Crayons	P. M. Sharples	19,757	June 23	55	1534
Curry-combs	B. F. Callender	20,346	Nov. 10	57	699
Cutlery	Spring Curry Comb Company	19,668	June 9	55	1280
Cutlery and edge and other tools	Graef & Schmidt	20,273	Oct. 27	57	416
Cutlery and edge and other tools	J. Allen	20,392	Nov. 24	57	1006
Cutlery and razors. Pocket	J. Allen	20,393	Nov. 24	57	1006
Cutlery for household use	Canton Cutlery Company	19,480	May 12	55	720
Cutlery, including shears, scissors, and razors	Landers, Frary & Clark	19,091	Feb. 24	54	964
Cutlery. Silver and silver-plated table	Northfield Knife Company	19,215	Mar. 24	54	1566
Cutlery. Table	Rand & Crane	19,659	June 2	55	1148
Deodorant. Toilet	American Cutlery Company	18,795	Jan. 6	54	3
Desks. School	B. F. Carver	18,778	Jan. 6	54	2
Desks. School	Manitowoc Manufacturing Company	18,893	Jan. 20	54	270
Detergent composition resembling soap	Hydo Carpet Cleaner and Moth Exterminating Co.	19,259	Mar. 31	54	1718
Detergent compound. Liquid	L. Dirksen	20,271	Oct. 27	57	416
Dextrine	P. Bauer & Co	20,200	Oct. 6	57	2
Diamond gems. Artificial	Allen & Jonassohn	20,473	Dec. 22	57	1600
Diamonds. Artificial	G. H. Cahoon & Co	19,924	July 28	56	402
Diamonds. Imitation	D. C. Percival & Co	19,284	Apr. 7	55	3
Dietetic products. Certain named	Gesellschaft für Fabrikation Diätetischer Produkte, Ed. Loefflund & Co.	19,160	Mar. 10	54	1270
Disinfectant	Alvarez Disinfectants Company	19,227	Mar. 24	54	1566
Disinfectant and insect-destroyer	R. K. Smith	19,013	Feb. 10	54	667
Disinfectants and deodorizers	Hattie & Mylius	20,146	Sept. 15	56	1340
Distilled liquors	Grierson, Oldham & Co	20,038	Aug. 18	56	808
Domestics. Bleached, gray, printed, and fancy	Neuss, Hesslein & Co	20,364	Nov. 10	57	699
Drawer-equalizers	Furniture Drawer Equalizer Company	20,159	Sept. 22	56	1452
Dress goods	J. H. Pitblan	18,886	Jan. 20	54	270
Dress goods and umbrella-coverings	W. F. Read	18,888	Jan. 20	54	270
Dress goods in piece	W. Macfarlane & Co	20,478	Dec. 22	57	1600
Dress goods known as cotton zephyrs	Lord & Taylor	20,462	Dec. 15	57	1432
Dress goods or fancy suitings	Lord & Taylor	20,463	Dec. 15	57	1432
Dumb-bells	Narragansett Machine Company	19,628	June 9	55	1280
Dye for leather and articles made thereof. Black oil	J. K. Krieg & Co	20,532	Dec. 29	57	1726
Dye. Hair	C. Damschinsky	20,343	Nov. 10	57	699
Dye. Hat	Eberhardt & Puhl	19,343	May 19	55	871
Dye-stuffs	Farbenfabriken, vormals Fr. Bayer & Co.	20,487	Dec. 22	57	1600
Dye-stuffs	Farbenfabriken, vormals Fr. Bayer & Co.	20,488	Dec. 22	57	1600

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Dye-stuffs	Farbenfabriken, vormals Fr. Bayer & Co.	20,489	Dec. 22	57	1600
Dye-stuffs	Farbenfabriken, vormals Fr. Bayer & Co.	20,490	Dec. 22	57	1600
Dye-stuffs	Farbenfabriken, vormals Fr. Bayer & Co.	20,491	Dec. 22	57	1600
Dye-stuffs	Farbenfabriken, vormals Fr. Bayer & Co.	20,492	Dec. 22	57	1600
Dye-stuffs	Farbenfabriken, vormals Fr. Bayer & Co.	20,493	Dec. 22	57	1600
Dye-stuffs. Aniline and other tar	K. Oehler	19,375	Apr. 21	55	291
Dyes	J. W. Brant Co.	20,513	Dec. 29	57	1726
Ear-rings, ear-knobs, and ear-wires	J. Bulova	19,870	July 14	56	146
Ear-rings, finger-rings, and bracelets	J. Bulova	19,871	July 14	56	146
Eggs. Compound for preserving	J. M. Rivard and G. W. Godfroy	19,626	June 2	55	1147
Elastic-woven fabrics known as goring. Narrow	J. W. Green, Jr., and G. C. Moore	19,650	June 2	55	1147
Electrical appliances	New York Insulated Wire Company	20,344	Nov. 10	57	699
Electrical instruments and appliances, excepting wire	Alexander, Barney & Chapin	19,519	May 19	55	870
Electrical work. Metallic brackets for use in	Electrical Supply Company	20,484	Dec. 22	57	1600
Electricity. Devices and apparatuses for generating, controlling, measuring, or applying	Electrical Supply Company	20,066	Aug. 25	56	932
Electricity. Devices and apparatuses for generating, transmitting, controlling, measuring, or applying	Electrical Supply Company	20,017	Aug. 11	56	666
Electricity. Devices and apparatuses for generating, transmitting, controlling, measuring, or applying	Electrical Supply Company	20,018	Aug. 11	56	666
Elixir	F. S. McIntyre	20,046	Aug. 18	56	808
Embalming-fluid	Bay State Fluid Co.	19,313	Apr. 14	55	144
Embalming-fluid	R. H. Elliott & Son	18,927	Feb. 3	54	510
Emblems. Masonic and other society	Sinnock & Sherrill	20,250	Oct. 20	57	278
Emulocration	J. Wilson	18,904	Jan. 27	54	394
Eubrocation for rheumatism, neuralgia, and similar ailments	E. Wunsch	19,199	Mar. 17	54	1422
Embroidery materials, plush and chenille ornaments, and trimmings for upholstery	Kampmann & Meyer	18,920	Feb. 10	54	667
Emulsions	Gulick & Co.	19,116	Mar. 3	54	1118
Emulsions and like preparations	Scott & Bowne	19,225	Mar. 24	54	1566
Enamel for coating the interior of barrels, tanks, and vessels	Hamrick Tank and Barrel Hard Shell Enameling Company	19,525	May 19	55	871
Enameled ware	St. Louis Stamping Company	19,578	May 26	55	1002
Engines. Automatic cut-off	Ball Engine Company	19,019	Feb. 17	54	821
Evaporated cream	St. Charles Evaporated Cream Company	20,328	Nov. 3	57	551
Expectorants. Liquid	W. D. Rea	19,424	May 5	55	578
Extract or sirup for beverages	E. May	19,949	July 23	56	402
Extracts. Flavoring	J. H. Smith Company	19,817	June 30	55	1658
Extracts for foods. Flavoring	J. T. Gilbert	19,214	Mar. 24	54	1566
Eye-water	A. L. Taylor and S. A. Way	19,415	May 5	55	577
Fabric for wearing-apparel. Open or net work	L. Haslam	20,152	Sept. 22	56	1452
Fabric for wearing-apparel. Open or net work	L. Haslam	20,153	Sept. 22	56	1452
Fabrics of cotton, wool, or mixed cotton and wool	Smith, Hogg & Gardner	19,080	Feb. 24	54	964
Fabrics. Preparation for cleaning and restoring	J. E. Black	20,456	Dec. 8	57	1284
Face-powder	Firm of R. M. Hunter	20,182	Sept. 29	56	1568
Face-powder and balm for chapped hands	Firm of R. M. Hunter	20,097	Sept. 1	56	1064
Face-powder and prepared chalk	A. S. Stiegerwald	19,087	Feb. 24	54	964
Feather dusters	C. Fisher	19,090	Feb. 24	54	964
Felting made from cattle-hair	Chalmers-Spence Company	19,629	June 2	55	1147
Fertilizers	Alabama Fertilizer Co.	19,743	June 23	55	1534
Fertilizers	Carib Gnano Company	20,263	Oct. 27	57	416
Filter-presses	Niles Tool Works	19,468	May 12	55	720
Finger-rings	Palmer & Capron	19,459	May 12	55	719
Finger-rings. Plated	Palmer & Capron	19,460	May 12	55	719
Fish. Boneless	B. F. Allen & Co.	19,311	Apr. 14	55	144
Fish. Boneless	B. F. Allen & Co.	19,312	Apr. 14	55	144
Fish. Cut and boneless	S. Gorton & Co.	19,720	June 16	55	1404
Fish. Whole, cut, and boneless	B. F. Allen & Co.	20,242	Oct. 20	57	278
Fish. Whole, cut, and boneless	J. G. Tarr & Bro.	19,835	June 30	55	1658
Flat and table ware	W. F. Newhall	19,751	June 23	55	1534
Flat ware, including spoons, knives, forks, and ladles	H. G. Hudson	19,959	Aug. 4	56	532
Flavoring extracts	Crescent Manufacturing Company	20,237	Oct. 20	57	278
Flavoring or sirups used with soda-fountains	H. B. Gustine	20,245	Oct. 20	57	278
Flour	Eckhart & Swan	19,748	June 23	55	1534
Flour	A. C. Klindtworth	20,212	Oct. 13	57	128
Flour	J. L. Rodgers & Co.	19,879	July 14	56	146
Flour	J. L. Rodgers & Co.	20,075	Aug. 25	56	932
Flour	M. B. Sheffield	20,480	Dec. 22	57	1600
Flour	Thompson Milling Company	18,890	Jan. 20	54	270
Flour	C. C. Washburn's Flouring Mills Company	20,421	Dec. 1	57	1136
Flour	C. C. Washburn's Flouring Mills Company	20,422	Dec. 1	57	1136
Flour	C. C. Washburn's Flouring Mills Company	20,423	Dec. 1	57	1136
Flour	C. C. Washburn's Flouring Mills Company	20,424	Dec. 1	57	1136
Flour and meal	H. W. Fry	19,212	Mar. 24	54	1566
Flour. Corn	National Starch Manufacturing Company	19,678	June 9	55	1280
Flour. Corn	National Starch Manufacturing Company	19,679	June 9	55	1280
Flour. Corn	National Starch Manufacturing Company	19,680	June 9	55	1280
Flour. Corn	National Starch Manufacturing Company	19,689	June 9	55	1280
Flour. Corn	National Starch Manufacturing Company	20,251	Oct. 20	57	278

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Flour. Wheat.....	J. P. Baden.....	20,140	Sept. 15	56	1340
Flour. Wheat.....	W. H. Brower.....	20,370	Nov. 17	57	850
Flour. Wheat.....	R. T. Davis Mill Company.....	19,794	June 30	55	1657
Flour. Wheat.....	R. T. Davis Mill Company.....	19,877	July 14	56	146
Flour. Wheat.....	R. T. Davis Mill Company.....	19,878	July 14	56	146
Flour. Wheat.....	R. T. Davis Mill Company.....	19,890	July 21	56	206
Flour. Wheat.....	Deadwood Flouring Mill Company.....	19,940	July 28	56	402
Flour. Wheat.....	L. M. Godley & Co.....	19,477	May 12	55	720
Flour. Wheat.....	E. Grupp & Son.....	19,795	June 30	55	1657
Flour. Wheat.....	M. McCaffrey & Co.....	19,797	June 30	55	1657
Flour. Wheat.....	Mecke & Co.....	20,247	Oct. 20	57	278
Flour. Wheat.....	Mecke & Co.....	20,477	Dec. 22	57	1600
Flour. Wheat.....	Northwestern Consolidated Milling Company.....	20,278	Oct. 27	57	416
Flour. Wheat.....	Northwestern Consolidated Milling Company.....	20,299	Nov. 3	57	550
Flour. Wheat.....	Northwestern Consolidated Milling Company.....	20,300	Nov. 3	57	550
Flour. Wheat.....	Northwestern Consolidated Milling Company.....	20,301	Nov. 3	57	550
Flour. Wheat.....	Northwestern Consolidated Milling Company.....	20,302	Nov. 3	57	550
Flour. Wheat.....	C. A. Pillsbury.....	19,772	June 30	55	1656
Flour. Wheat.....	S. Samper & Co.....	19,627	June 2	55	1147
Flour. Wheat.....	Thompson Milling Company.....	19,952	July 28	56	402
Flour. Wheat.....	Wichita Valley Mill and Elevator Company.....	20,439	Dec. 1	57	1136
Flour. Wheat.....	W. E. Woodyear.....	19,323	Apr. 21	55	292
Flowers and feathers for millinery.....	S. Mandel.....	18,945	Feb. 3	54	511
Flowers, seeds, bulbs, and analogous products. Cut and pot- ted.....	Florists International Telegraph De- livery Association.....	20,425	Dec. 1	57	1136
Food for live stock.....	C. Kertell.....	19,432	May 5	55	578
Forks, hoes, rakes, and hooks.....	Iowa Farming Tool Company.....	19,356	Apr. 14	55	145
Freezing fluids. Structures or processes for.....	F. B. Cochran.....	18,884	Jan. 20	54	270
Fringes.....	Kampmann & Meyer.....	18,969	Feb. 10	54	666
Frozen confections.....	Hertz & Kiesling.....	20,019	Aug. 11	56	666
Fruits and nuts.....	W. Osttag.....	20,400	Nov. 24	57	1006
Fruits. Citrus and deciduous.....	Earl Fruit Company.....	20,006	Aug. 11	56	666
Fruits or vegetables. Green, dried, canned, or preserved.....	Soros Fruit Company.....	19,962	Aug. 4	56	532
Furnaces and parts thereof. Hot water, steam, and hot-air.....	Baker Heater Company.....	19,829	June 30	55	1658
Game-boards. Parlor.....	B. V. Mein.....	20,211	Oct. 20	57	278
Game-counters.....	G. Knehl.....	19,156	Mar. 10	54	1270
Game of jack-straws.....	E. I. Horsman.....	19,465	May 12	55	720
Game of ten-pins.....	W. Sowdon.....	20,225	Oct. 13	57	128
Game. Parlor.....	G. B. Leiter.....	20,416	Dec. 1	57	1136
Game. Portable.....	J. S. Foster.....	18,801	Jan. 6	54	3
Games.....	F. A. Kinney.....	19,282	Apr. 7	55	3
Games, puzzles, and toys.....	W. R. Graham.....	19,205	Mar. 24	54	1566
Garment called an ulster. Outside.....	Standard Clothing Company.....	18,959	Feb. 10	54	666
Garments. Men's and boy's.....	Solidarity Co-Operative Manufactur- ing Company.....	19,880	July 14	56	146
Garments. Men's and boys'.....	Whitehill & Cleveland.....	20,078	Aug. 25	56	932
Garments. Men's and boys' outer.....	Famous Shoe and Clothing Company.....	20,096	Sept. 1	56	1064
Garments of silk plush resembling seal-skin. Women's outer.....	A. E. Burkhardt.....	18,909	Jan. 27	54	394
Garment-stays.....	Amber Bone Manufacturing Com- pany.....	19,441	May 5	55	578
Garters. Men's and women's.....	F. A. Freeman.....	19,968	Aug. 4	56	532
Gasoline. Stove.....	National Refining Company.....	19,324	Apr. 14	55	144
Gelatine.....	C. B. Knox.....	20,191	Oct. 6	57	2
Gems. Artificial.....	G. H. Cahoone & Co.....	19,876	July 14	56	146
Gin.....	W. Bergenthal Company.....	20,167	Sept. 22	56	1152
Gin.....	O. A. Krauss.....	18,504	Jan. 6	54	3
Gin.....	A. C. A. Nolet.....	18,839	Jan. 13	54	142
Ginghams. Scotch.....	W. Anderson & Co.....	19,554	May 26	55	1003
Glass signs and labels for druggists' use.....	Daves Manufacturing Company.....	19,777	June 30	55	1656
Gloves.....	Firm of Reynier.....	20,248	Oct. 20	57	278
Gloves.....	A. L. V. Wood.....	18,846	Jan. 13	54	142
Gloves. Kid.....	Wertheimer & Co.....	19,708	June 16	55	1404
Glue. Liquid fish.....	Improved Process Glue Company.....	20,091	Sept. 1	56	1064
Glycecol derivatives.....	Chemische Fabrik auf Actien, (vor- mals E. Schering.).....	18,856	July 7	56	2
Gold, silver, and plated articles, flat ware and jewelry.....	Montgomery Bros.....	20,270	Oct. 27	57	416
Gold, silver, and plated flat and table ware.....	Harris & Shafer.....	19,995	Aug. 11	56	666
Gold, silver, and plated flat and table ware.....	W. H. Saxton, Jr.....	20,327	Nov. 3	57	551
Gold, silver, and plated flat ware.....	E. A. Whitney & Co.....	19,780	June 30	55	1656
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,778	June 30	55	1656
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,779	June 30	55	1656
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,782	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,783	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,784	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,785	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,786	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,787	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,788	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,789	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,790	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,791	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,792	June 30	55	1657
Gold, silver, and plated table and flat ware.....	E. A. Whitney & Co.....	19,800	June 30	55	1657
Gold, silver, and plated table-ware.....	E. A. Whitney & Co.....	19,781	June 30	55	1657
Gold, silver, and plated table-ware, jewelry, and similar arti- cles.....	W. B. Durgin.....	20,218	Oct. 13	57	128
Goods of wool, worsted, or hair.....	W. & H. Foster.....	19,069	Feb. 21	54	964
Gossamers. Ladies'.....	P. C. Getz.....	20,240	Oct. 20	57	278

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Grain.....	Pittman & Harrison.....	18,937	Feb. 3	54	511
Grain, &c. Pneumatic distributor for sowing.....	G. F. Strawson.....	20,481	Dec. 22	57	1600
Granite for ornamental and building purposes. Artificial.....	P. de Krystoffovitch.....	18,803	Jan. 6	54	3
Grape-juice. Unfermented.....	M. B. Gleason.....	20,347	Nov. 10	57	699
Grape-vines.....	Diamond White Grape Company.....	18,948	Feb. 3	54	511
Grapes and other fruits. Unfermented and undistilled products of.....	Brook Lawu Farm Company.....	18,815	Jan. 6	54	3
Guitars, mandolins, zithers, banjos, and like stringed instruments.....	M. Meyer & Brother Company.....	18,943	Feb. 3	54	511
Gum. Chewing.....	Adams & Sons.....	19,088	Feb. 24	54	964
Gum. Chewing.....	F. J. Bauta.....	19,363	Apr. 21	55	291
Gum. Chewing.....	Bell & Yore.....	19,429	May 5	55	578
Gum. Chewing.....	J. B. Bodle.....	19,341	Apr. 14	55	144
Gum. Chewing.....	F. H. Flier & Co.....	20,285	Nov. 3	57	550
Gum. Chewing.....	S. Grove & Son.....	19,330	Apr. 14	55	144
Gum. Chewing.....	J. K. McIlhenny.....	19,943	July 28	56	402
Gum. Chewing.....	Royal Remedy and Extract Company.....	19,021	Feb. 17	54	821
Gum. Chewing.....	A. R. White.....	20,267	Oct. 27	57	416
Gum. Chewing.....	W. J. White.....	20,517	Dec. 29	57	1726
Gunpowder.....	Hazard Powder Company.....	19,505	May 12	55	720
Gypsum for paper-making. Pure.....	H. C. Hulbert.....	18,885	Jan. 20	54	270
Hair and scalp. Preparation for the.....	J. M. Brewuell.....	20,524	Dec. 29	57	1726
Hair-curlers.....	G. L. Thompson Manufacturing Company.....	19,852	July 7	56	2
Hair curling and crimping implements.....	A. Bridgman.....	19,403	Apr. 28	55	436
Hair-curling lotion.....	B. Westervelt.....	19,902	July 21	56	266
Hair-dye.....	J. M. Scheffler.....	19,349	Apr. 14	55	145
Hair. Preparation for curling the.....	P. B. Keys.....	20,286	Nov. 3	57	550
Hair-removers, shampoos, soaps, creams, powders, and lotions for the skin.....	Imperial Chemical Manufacturing Company.....	19,830	June 30	55	1658
Hair-restorative.....	C. Damschinsky.....	20,356	Nov. 10	57	699
Hair-restorative.....	J. T. Fay.....	19,242	Mar. 31	54	1717
Hair-restorative.....	S. T. Thill.....	20,215	Oct. 13	57	128
Hair-restoratives.....	C. H. Pape.....	19,169	Mar. 10	54	1270
Hair-tonic.....	Arthur Chemical Co.....	19,758	June 23	55	1534
Hair-tonic.....	W. E. Coffin.....	19,854	July 7	56	2
Hair-tonic.....	M. W. Denike.....	19,419	May 5	55	578
Hair-tonic.....	W. C. Halleck.....	20,274	Oct. 27	57	416
Hair-tonic.....	E. J. Hickey.....	19,195	Mar. 17	54	1422
Hair-tonic.....	W. P. T. Ragio.....	19,197	Mar. 17	54	1422
Hair-tonic.....	B. J. Requaardt.....	19,546	May 19	55	871
Hair-tonic and curling-fluid.....	K. M. Da Mond.....	20,431	Dec. 1	57	1136
Hames.....	A. A. Boyd.....	19,793	June 30	55	1657
Hams and bacon.....	Imperial Packing Company.....	19,838	July 7	56	2
Hams and bacon. Smoked.....	H. E. Bailey.....	19,744	June 23	55	1534
Hams, shoulders, bacon, canned meats, sausage, soups and extracts, lard, oils and tallow, and other hog and beef products.....	N. Morris & Co.....	20,180	Sept. 29	56	1568
Hams, shoulders, sides, and bacon.....	Silberhorn Company.....	19,985	Feb. 10	54	667
Hand-case and saddle-bags. Combined.....	W. S. Marshall.....	19,973	Aug. 4	56	532
Hardware, excluding locks and latches. Builders' miscellaneous.....	Reading Hardware Company.....	19,658	June 2	55	1147
Harmonicas.....	Weiller & Sons.....	19,508	May 12	55	720
Harmonicas. Mouth.....	M. Hohner.....	20,264	Oct. 27	57	416
Harrows and pulverizers.....	D. S. Morgan & Company.....	19,074	Feb. 24	54	964
Hats.....	W. T. Bowers.....	19,012	Feb. 17	54	821
Hats and caps.....	Gate City Hat Company.....	19,054	Feb. 17	54	822
Hats and caps.....	B. Kahn.....	19,155	Mar. 10	54	1270
Hats and caps.....	J. Vimenet.....	19,064	Feb. 24	54	964
Hats and caps. Men's and children's.....	D. E. Loewe & Co.....	20,069	Aug. 25	56	932
Hats, caps, and other head-coverings.....	B. Herzberg & Co.....	19,885	July 14	56	146
Hats. Soft and stiff felt and cloth.....	Ballard, Webb & Burnette Hat Company.....	19,903	July 21	56	266
Hay-knives.....	H. Holt Company.....	19,390	Apr. 21	55	292
Head-wear.....	Collins & Fairbanks.....	20,496	Dec. 22	57	1600
Headache and neuralgia cure.....	P. W. Vaughan.....	20,138	Sept. 15	56	1340
Headache-powders.....	W. S. Taylor.....	19,426	May 5	55	578
Headache-powders, corn-cure, cough-drops, tooth-cordials, pills, and inhalers.....	A. L. Beck.....	20,450	Dec. 8	57	1284
Heaters. Portable.....	D. H. Erdman.....	19,115	Mar. 3	54	1118
Heating-furnaces.....	H. G. Hart & Co.....	20,363	Nov. 10	57	699
Herbs for curing diseases arising from disordered liver and kidneys. Dry mixture of.....	S. R. Fell & Co.....	20,008	Aug. 11	56	666
Hog and beef products, including hams, shoulders, bacon, lard, and tallow.....	N. Morris & Co.....	20,175	Sept. 29	56	1568
Hog and beef products, including lard.....	N. Morris & Co.....	19,514	May 19	55	870
Hog and beef products, including lard and tallow.....	N. Morris & Co.....	20,064	Aug. 18	56	808
Hog and beef products, including lard and tallow.....	N. Morris & Co.....	20,377	Nov. 17	57	850
Hog and chicken cholera. Powder for.....	R. E. Freleigh.....	19,895	July 21	56	266
Hollow ware and household utensils made of fiber.....	Standard Fiber-Ware Company.....	20,214	Oct. 13	57	128
Homeopathic remedies for family use.....	C. W. Karsner.....	19,711	June 16	55	1404
Hooks and eyes.....	J. C. Newey.....	20,129	Sept. 15	56	1340
Hooks for machine-beltng.....	W. O. Talcott.....	18,973	Feb. 10	54	666
Horse-blankets.....	W. B. Riley & Co.....	19,944	July 28	56	402
Hose, belting, and packing for machinery.....	Revere Rubber Company.....	19,078	Feb. 24	54	964
Hose, belting, and packing for machinery.....	Revere Rubber Company.....	19,558	May 19	55	872
Hose. Hydraulic.....	Waterbury Rubber Company.....	19,560	May 19	55	872
Hose made of woven and knitted fabric. Fire.....	Eureka Fire Hose Company.....	19,167	Mar. 10	54	1270
Hose-supporters.....	G. Frost & Co.....	19,235	Mar. 31	54	1717
Hose. Textile fire.....	C. Callahan Company.....	19,292	Apr. 7	55	3
Hosiery.....	Columbia Hosiery Company.....	20,021	Aug. 11	56	666
Hosiery.....	G. Hecker & Söhne.....	19,412	Apr. 28	55	436
Hosiery.....	J. H. Parker.....	18,924	Feb. 3	54	510
Hosiery.....	Pilling & Madeley.....	19,129	Mar. 3	54	1118

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Hosiery	Powell & Bro.	20,494	Dec. 22	57	1600
Hosiery	Verdier & Schultz	19,946	July 28	56	402
Hosiery	F. Vietor & Achelis	20,330	Nov. 3	57	551
Hosiery	Waukenhose Company	18,814	Jan. 6	54	3
Hosiery and gloves. Men's, women's, and children's.	E. S. Jaffray & Co.	20,160	Sept. 22	56	1452
Hot-water heaters	Gurney Hot Water Heater Company	19,070	Feb. 24	54	964
Inks and bluing	Diamond & Onyx	20,334	Nov. 10	57	698
Inks. Printers' and lithographers'	Ault & Wiborg Company	19,933	July 28	56	402
Inks. Printing and lithographing	Fuchs & Laug	19,345	Apr. 14	55	145
Inks. Printing and lithographing	Kast & Ehinger	18,827	Jan. 13	54	142
Insect-destroyer	Green Chemical Co.	20,390	Nov. 17	57	850
Insect-destroyers	G. L. Baldant & Co.	19,884	July 14	56	146
Insect-powder	C. M. Schmidt	19,056	Feb. 17	54	822
Insects. Poison for	W. A. Schmidt	19,853	July 7	56	2
Insecticide	Kismet Chemical Company	20,508	Dec. 29	57	1726
Insecticide	J. C. Michael and C. A. Osmun	19,370	Apr. 21	55	291
Insecticide	G. J. Schmitt	20,419	Dec. 1	57	1136
Insecticide	Stott Garden Implement Company	20,510	Dec. 29	57	1726
Insoles, Electric	E. Wingren & Co.	19,111	Mar. 3	54	1117
Insulated conducting-wires	Phillips Insulated Wire Co.	20,339	Nov. 10	57	698
Insulating against electricity. Material for	Alexander, Barney & Chapin	19,518	May 19	55	870
Insulating materials for covering pipes, boilers, and like articles.	R. M. Gilmour	20,058	Aug. 18	56	808
Insulating purposes. Splicing-tape for	E. S. Greeley & Company	20,438	Dec. 1	57	1136
Iron and steel. Machinery and manufactures of	Brookes & Cooper	19,862	July 7	56	2
Iron and steel. Manufactures of	Diamond State Iron Company	20,284	Nov. 3	57	550
Iron, steel, and manufactures thereof.	Carpenter Steel Company	19,049	Feb. 17	54	822
Jams, jellies, marmalades, and preserves.	R. Gordon	19,484	May 12	55	720
Jellies and confections.	R. B. Beaumont Company	19,664	June 9	55	1280
Jelly. Guava	C. V. Barton and E. N. Dimick	19,314	Apr. 14	55	144
Jewelry, and flat and table ware. Gold, silver, and plated.	Curtis & Wilkinson	20,312	Nov. 3	57	551
Jewelry. Imitation diamond.	B. E. Arons	19,200	Mar. 24	54	1566
Journal compounds and lubricating oils and grease	C. H. Moore & Co.	19,184	Mar. 17	54	1422
Kid and morocco leather.	Quaker City Morocco Company	20,418	Dec. 1	57	1136
Kid, goat, and similar light-weight leathers	R. H. Foerderer	20,219	Oct. 13	57	128
Knit goods, such as hosiery, underwear, and athletic goods	S. P. Curtis	19,719	June 16	55	1404
Knit shirts and drawers	Union Special Sewing Machine Company	19,176	Mar. 17	54	1422
Knit underwear	S. Wright	19,494	May 12	55	720
Knit underwear. Fancy	Ymms, Kyne & Kennedy	19,328	Apr. 14	55	144
Knives, forks, spoons, and other gold, silver, and plated articles	M. W. Galt Bro. & Co.	19,421	May 5	55	578
Knives, forks, spoons, and other gold, silver, and plated articles	M. W. Galt Bro. & Co.	19,769	June 30	55	1056
Knives, forks, spoons, and other gold, silver, and plated articles	M. W. Galt Bro. & Co.	20,448	Dec. 8	57	1284
Knives, scissors, razors, and strops	E. A. Clauberg	19,655	June 2	55	1147
Kümmel	B. Hochstadter	18,929	Feb. 3	54	511
Ladies' and gentlemen's furnishings.	H. Wolf	19,153	Mar. 10	54	1270
Lamp-black	G. L. Cabot	18,999	Jan. 27	54	394
Lamp-chimneys	L. Heuman & Sons	19,644	June 2	55	1147
Lamp shades. Incandescent	J. E. Treat	20,366	Nov. 10	57	699
Lamps and gas-fixtures. Shades for	W. Foerster & Co.	20,190	Oct. 6	57	2
Lamps. Burners for central-draft	Rochester Lamp Company	19,479	May 12	55	720
Lamps. Glass	Dithridge & Co.	20,497	Dec. 22	57	1600
Lamps. Incandescent electric	Sunbeam Incandescent Lamp Company	18,931	Feb. 3	54	511
Lard	Anglo American Provision Company	20,519	Dec. 29	57	1726
Lard	Silberhorn Company	18,984	Feb. 10	54	667
Laundry purposes. Powder for	Magic Washing Powder Company	19,347	Apr. 14	55	145
Leads and chalk for use in pencils and crayons	J. F. Mitchell Company	19,723	June 16	55	1404
Leather	White Bros. & Co.	19,327	Apr. 14	55	144
Leather-dressing	J. J. and W. W. Georges	20,295	Nov. 3	57	550
Leather-dressing	S. A. White	19,628	June 2	55	1147
Leather-dressing and metal-polish	Ames & Son	19,449	May 12	55	719
Leather. Dressing for patent and enameled	W. N. King, Jr.	20,499	Dec. 22	57	1600
Leather-dressing. Preparation for	M. T. Maguire	19,660	June 2	55	1148
Liniment	A. Boudrou	20,522	Dec. 29	57	1726
Liniment	J. P. Cox	20,115	Sept. 8	56	1208
Liniment	E. C. De Witt	19,541	May 19	55	871
Liniment	W. H. Eldred	19,815	June 30	55	1658
Liniment	P. M. Murray	19,233	Mar. 31	54	1717
Liniment	National Drug Company	20,397	Nov. 24	57	1006
Liniment	L. Scott	20,358	Nov. 17	57	850
Liniment	S. W. Stanley	20,181	Sept. 29	56	1568
Liniment for animals.	A. Burrows	20,125	Sept. 15	56	1340
Liniment for sprains, lumbago, lameness, &c.	Weinberg & Mann	20,198	Oct. 6	57	2
Liniments for the cure of rheumatism, neuralgia, gout, and similar ailments.	J. H. Blume & Co.	19,097	Feb. 24	54	964
Liniments, ointments, salves, and condition-powders for horses.	Superior Horse Foot Oil Company	19,473	May 12	55	720
Linoleum	Lyon, Hall & Co.	19,907	July 21	56	266
Liquor. Spirituous	Schaltin, Pierry & Co.	19,991	Aug. 4	56	532
Liquors and cordials	Les Héritiers de Marie Brizard & Roger, M. B. Glotin, Achard & Glotin.	19,554	May 19	55	871
Liquors and cordials	Les Héritiers de Marie Brizard & Roger, M. B. Glotin, Achard & Glotin.	19,555	May 19	55	871
Liquors. Compound for refining, purifying, and mellowing spirituous	W. & P. Thompson	19,024	Feb. 17	54	821
Litho-carbon. Articles treated or coated with	I. Taylor	19,083	Feb. 24	54	964
Lotion for the complexion	M. N. Roberts	20,317	Nov. 3	57	551
Lotion for the face and hands	J. A. Smith	19,899	July 21	56	266
Lotions for the skin	C. P. Kinsilla	20,025	Aug. 11	56	666
Lotions, soaps, salve, and dentifrices.	H. E. Henwood	20,024	Aug. 11	56	666
Magnesia	F. Henry	19,867	July 14	56	146

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Title.	Name.	No.	Date.	Official Gazette.	
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Malt extract.....	Robert Smith India Pale Ale Brew- ing Company.....	20,466	Dec. 15	57	1432
Malt extracts.....	J. Kohnle.....	19,413	Apr. 28	55	436
Malt liquors.....	A. M. Rickerby.....	19,207	Mar. 24	54	1566
Malt liquors.....	A. M. Rickerby.....	19,208	Mar. 24	54	1566
Maple sugar and sirup.....	W. B. Glynn.....	19,690	June 9	55	1280
Matches. Parlor.....	L. Gustain.....	19,318	Apr. 14	55	144
Matches. Safety.....	Bryant & May.....	19,178	Mar. 17	54	1422
Matches. Wax.....	Bryant & May.....	19,108	Mar. 3	54	1117
Matches. Wax.....	Bryant & May.....	19,137	Mar. 3	54	1118
Matches. Wax.....	Bryant & May.....	19,145	Mar. 3	54	1118
Matches. Wax.....	Bryant & May.....	19,179	Mar. 17	54	1422
Meal.....	C. Oskamp.....	19,234	Mar. 31	54	1717
Meal for live stock.....	Bowker Fertilizer Company.....	18,823	Jan. 13	54	142
Meal for live stock.....	Bowker Fertilizer Company.....	19,017	Feb. 17	54	821
Meat. Extracts of.....	Compagnie Des Produits Kemmerich.....	20,022	Aug. 11	56	666
Meat. Extracts of.....	Compagnie Des Produits Kemmerich.....	20,023	Aug. 11	56	666
Meat. Fluid or paste extract of.....	L. Crocker.....	20,427	Dec. 1	57	1136
Meat. Sliced cured.....	C. A. Beckford.....	18,831	Jan. 13	54	142
Meats. Antiseptic coloring compound for use upon cured.....	J. Horner.....	19,730	June 16	55	1404
Meats. Sugar-cured.....	Clark & Stuyvesant Grocery Com- pany.....	20,323	Nov. 3	57	551
Medical appliances. Hygienic.....	R. B. Duty.....	20,189	Oct. 6	57	2
Medical compound for external and internal use.....	P. Davis & Son.....	19,988	Aug. 4	56	532
Medical preparation of sandal-wood and copaiba.....	Evaus, Lescher & Webb.....	18,914	Feb. 3	54	510
Medicated candy.....	Gold & Schrader.....	19,338	Apr. 14	55	144
Medicated cough-drops, lozenges, or confections.....	C. B. Welch.....	19,911	July 21	56	266
Medicated wines.....	W. H. Gilmore.....	20,079	Aug. 25	56	932
Medicated wines.....	W. H. Reinhold.....	20,479	Dec. 22	57	1600
Medicinal beverage.....	H. E. Dowd.....	19,966	Aug. 4	56	532
Medicinal plaster, unguent, or compound.....	H. N. Keith.....	20,291	Nov. 3	57	550
Medicinal preparations. Certain.....	A. C. Meyer.....	19,703	June 16	55	1404
Medicinal purposes. Liquid preparation for.....	H. M. Johnson.....	19,009	Feb. 10	54	667
Medicine. Cough.....	G. A. Moore.....	19,035	Feb. 17	54	822
Medicine for external application.....	Sun I See Oil Company.....	18,947	Feb. 3	54	511
Medicine for inhalation.....	G. W. Mowry.....	18,912	Jan. 27	54	394
Medicine for nervous affections, fevers, coughs, colds, neu- ralgia, and for the blood.....	G. W. Smelser.....	20,120	Sept. 8	56	1208
Medicine for the cure of erysipelas. Liquid.....	L. Robinson.....	20,535	Dec. 29	57	1726
Medicine for the prevention of seasickness.....	Possidon Co.....	20,134	Sept. 15	56	1340
Medicine. Liquid throat.....	Norwich Pharmacal Company.....	20,083	Aug. 25	56	932
Medicines and a remedy for rheumatism. Lino of proprie- tary.....	Fisher Mason Chemical Co.....	20,342	Nov. 10	57	698
Medicines and surgical instruments. Pocket-cases for.....	S. G. Warner.....	19,590	May 26	55	1003
Medicines and tonics. External.....	Silvera & Lopez.....	18,889	Jan. 20	54	270
Medicines containing pepsin, pancreatine, caffeine, and celery. Fluid.....	Sharp & Dohme.....	19,425	May 5	55	578
Medicines for nervous diseases.....	S. A. Richmond.....	19,774	June 30	55	1656
Medicines for nervous diseases and for diseases of the blood and skin, suppositories, ointments, and medical compounds in the form of soap.....	G. C. Kilgore and E. F. Hanson.....	20,162	Sept. 22	56	1452
Medicines for the cure of blood diseases, blood-poison, scrofula, eczema, &c.....	J. A. Cobb.....	19,981	Aug. 4	56	532
Medicines. Line of proprietary.....	L. J. Huntley & Co.....	20,357	Nov. 10	57	699
Medicines. Line of proprietary.....	J. C. Litzelle.....	19,892	July 21	56	266
Medicines. Line of proprietary.....	T. Paine.....	19,037	Feb. 17	54	822
Medicines. Line of proprietary.....	V. S. Roden & Co.....	19,391	Apr. 21	55	292
Medicines. Line of proprietary.....	R. Van Bns Kirk.....	19,110	Mar. 3	54	1117
Men's outfittings.....	Yeatts & Troth.....	18,950	Feb. 3	54	511
Metal. Anti-friction.....	E. L. Hand.....	19,570	May 26	55	1002
Metal. Babbitt.....	E. L. Post.....	19,773	June 30	55	1656
Metal in bars and harness-trimmings.....	Pope's Island Manufacturing Cor- poration.....	19,636	June 2	55	1147
Metal in ingots and bars and articles manufactured therefrom. New.....	P. B. Andreae.....	20,151	Sept. 22	56	1452
Metal-polish.....	Johnson Brothers.....	19,710	June 16	55	1404
Metal-polish.....	Matchless Metal Polish Company.....	19,549	May 19	55	871
Metal. Powder for polishing.....	Caledonia Mining and Manufactur- ing Company.....	19,148	Mar. 10	54	1270
Metals. Compounds for cleaning and polishing.....	W. J. Ladd.....	18,905	Jan. 27	54	394
Metals, including aluminum, bronze, and magnesium. Valu- able.....	Thowless Aluminum Syndicate.....	20,329	Nov. 3	57	551
Metallic receptacles for table and hand use, including bonbon- nières.....	Pairpoint Manufacturing Company.....	19,662	June 2	55	1148
Milk-coagulating products.....	Nutrimet Company.....	19,493	May 12	55	720
Milk. Condensed.....	Anglo Swiss Condensed Milk Com- pany.....	19,509	May 19	55	870
Milk. Condensed.....	Wisconsin Milk Condensing Com- pany.....	20,136	Sept. 15	56	1340
Milk wine.....	J. H. Hooker.....	20,336	Nov. 10	57	698
Mince-meat.....	Woerner Preserving Company.....	18,793	Jan. 6	54	3
Mineral water.....	Bear Lithia Water Company.....	19,672	June 9	55	1280
Mineral water.....	Excelsior Springs Company.....	20,060	Aug. 18	56	808
Mineral water.....	Lystra Mineral Water Company.....	19,869	July 14	56	146
Mineral water.....	J. Morgan.....	18,901	Jan. 27	54	394
Mineral water.....	Panacea Springs and Hotel Company.....	18,960	Feb. 10	54	666
Mineral water.....	Wheeler & Company.....	19,765	June 23	55	1534
Mineral waters.....	C. M. Boyce & Co.....	19,948	July 28	56	402
Mineral waters and soft drinks.....	E. S. Hughes.....	19,526	May 19	55	871
Mowers. Lawn.....	W. E. Lape.....	20,043	Aug. 18	56	808
Music-boxes.....	M. J. Paillard & Co.....	18,775	Jan. 6	54	2
Musical instruments.....	C. G. Conn.....	18,939	Feb. 3	54	511
Musical instruments.....	L. Löwenthal.....	19,466	May 12	55	720
Musical instruments and trimmings. Reed, string, and brass.....	C. Meisl.....	19,635	June 2	55	1147

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Title.	Name.	No.	Date.	Official Gazette.	
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Musical instruments known as xylophones and bells	L. D. Mitchell	19,149	Mar. 10	54	1270
Musical instruments. Wind	F. Besson & Co	20,132	Sept. 15	56	1340
Mustard	E. J. Burch	20,504	Dec. 29	57	1726
Mustard	Tode Bros.	19,229	Mar. 24	54	1566
Needles and fish-books	W. E. Compton	19,062	Feb. 24	54	963
Needles. Sewing	G. Printz & Co	19,196	Mar. 17	54	1422
Nerve-elixir	E. Dort	20,498	Dec. 22	57	1600
Newspapers	W. B. Dana & Co	19,649	June 2	55	1147
Nose-bags for animals	G. D. Leonard	19,712	June 16	55	1404
Nursery products, including trees, plants, scions, and fruits	H. A. Jones	18,911	Jan. 27	54	394
Oats and cracked wheat. Rolled	Steward & Merriam	20,429	Dec. 1	57	1136
Oil-cans	H. Dutton	19,818	June 30	55	1658
Oil. Cooking	American Cotton Oil Company	19,807	June 30	55	1657
Oil. Cotton-seed	M. Liebman	19,073	Feb. 24	54	964
Oil. Cotton-seed	M. Liebman	19,331	Apr. 14	55	144
Oil finish. Hard	E. M. Ezekiel	19,941	July 28	56	402
Oil. Illuminating	J. Ellis & Co	19,068	Feb. 24	54	964
Oil. Illuminating	J. Ellis & Co	19,942	July 28	56	402
Oil. Illuminating	National Refining Company	19,321	Apr. 14	55	144
Oil. Illuminating	National Refining Company	19,322	Apr. 14	55	144
Oil. Illuminating	Tide Water Oil Company of Georgia	19,297	Apr. 7	55	3
Oil. Lubricating	Acme Grease and Oil Manufacturing Co.	20,226	Oct. 13	57	128
Oil. Lubricating	National Refining Company	19,323	Apr. 14	55	144
Oil. Miners'	American Cotton Oil Company	19,753	June 23	55	1534
Oil or grease. Lubricating	S. H. and C. B. Shannon	20,155	Sept. 22	56	1452
Oil or liniment for bruises, chilblains, and similar troubles	Sabine Curative Oil Co	19,992	Aug. 4	56	532
Oil. Salad	American Cotton Oil Company	19,803	June 30	55	1657
Oils used in compounding beverages and liquors	H. Cohen	19,747	June 23	55	1534
Ointment	T. F. Christman	19,114	Mar. 3	54	1118
Ointment	C. H. Harder	18,784	Jan. 6	54	3
Ointment	Petroleum Compound Co	19,741	June 23	55	1534
Ointment	W. I. Vescelius	19,978	Aug. 4	56	532
Ointment	E. W. Walton	19,325	Apr. 14	55	144
Ointments	B. D. Blackstone	18,936	Feb. 3	54	511
Oleaginous preparation for washing clothes	Lily White Washing Compound Company	18,869	Jan. 20	54	270
Opera, marine, and field glasses and lenses	D. C. Percival & Co	19,023	Feb. 17	54	821
Oranges	Carney Co	20,525	Dec. 29	57	1726
Organs	Hamilton Organ Company	19,281	Apr. 7	55	3
Organs	J. W. Williams & Sons	19,604	May 26	55	1003
Outer garments	J. S. Mossler & Bro	20,290	Nov. 3	57	550
Outer clothing and overcoats	Bierman, Heidelberg & Co	19,040	Feb. 17	54	822
Packing. Composition	Revere Rubber Company	20,135	Sept. 15	56	1340
Packing for machinery	J. H. Billington	18,852	Jan. 20	54	270
Packing for machinery	Topping & Fox	20,404	Nov. 24	57	1006
Packing. Metallic	J. H. Harris	19,823	June 30	55	1658
Paint	E. Maynz	20,398	Nov. 24	57	1006
Paint	C. T. Reynolds & Co	19,491	May 12	55	720
Paint. Asphalt	Warren Chemical and Manufacturing Company	19,912	July 21	56	266
Paint. Black	H. S. Fassett & Co	19,243	Mar. 31	54	1717
Paint. Carriage	Cary-Ogden Company	19,159	Mar. 10	54	1270
Paint-distributors for use in copying from nature or art	Air Brush Manufacturing Company	19,986	Aug. 4	56	532
Paint. Mineral	Coates & Purbeck	19,904	July 21	56	266
Paint. Mixed	A. Wilhelm Company	18,895	Jan. 20	54	270
Paint. Roofing	A. F. Hawthorn	20,255	Oct. 27	57	416
Paint, wood, and metal. Preservative for	Linoide Manufacturing Company	18,805	Jan. 6	54	3
Paints	F. C. Knowles & Company	19,485	May 12	55	720
Paints and colors	C. T. Reynolds & Co	19,490	May 12	55	720
Paints. Bituminous	Reh & Co	20,113	Sept. 8	56	1308
Paints. Oil	T. L. Blood & Co	19,586	May 26	55	1003
Paints. Prepared liquid	Longman & Martinez	20,044	Aug. 18	56	808
Paints. Ready-mixed enamel	J. J. Heins	19,633	June 2	55	1147
Paper and the like. Bank and note	W. M. Perkins	20,391	Nov. 17	57	850
Paper bags	Arkell & Smiths	19,754	June 23	55	1534
Paper bags	W. A. Chipman	19,295	Apr. 7	55	3
Paper bags	Hercules Paper Bag Co	19,344	Apr. 14	55	145
Paper bags	H. McInnes	19,841	July 7	56	2
Paper bags	Union Bag and Paper Company	19,192	Mar. 17	54	1422
Paper. Carbon	A. P. Little	20,010	Aug. 11	56	666
Paper, cards, and envelopes	J. Dickinson Company	19,613	June 2	55	1146
Paper. Fine writing	Southworth Company	19,461	May 12	55	719
Paper-making materials	Liverpool Marine Store Co	19,308	Apr. 7	55	4
Paper-making materials	Liverpool Marine Store Co	19,309	Apr. 7	55	4
Paper-making. Pure gypsum for	H. C. Hulbert	19,453	May 12	55	719
Paper. Medicated toilet	Gayetty Paper Co	20,268	Oct. 27	57	416
Paper. Printing and writing	Clarke & Courts	18,779	Jan. 6	54	2
Paper. Sensitized, preservative, and adhesive monogram	K. & W. Automatic Rapid-Photo Printing Machine Co.	19,965	Aug. 4	56	532
Paper. Tissue	R. Fletcher & Son	20,232	Oct. 20	57	278
Paper. Water-proof	F. W. Bird & Son	20,093	Sept. 1	56	1064
Paper. Wrapping	G. W. Thompson	19,963	Aug. 4	56	532
Paper. Writing	Bradner, Smith & Company	19,955	Aug. 4	56	532
Paper. Writing	Bradner, Smith & Company	19,964	Aug. 4	56	532
Paper. Writing	Chester Paper Company	20,041	Aug. 18	56	808
Paper. Writing	Ph. Hake Manufacturing Company	19,670	June 9	55	1280
Paper. Writing	Nonotuck Paper Company	19,865	July 7	56	2
Paper. Writing	Nonotuck Paper Company	19,922	July 28	56	402
Paper. Writing	Nonotuck Paper Company	19,923	July 28	56	402
Paper. Writing	Whiting Paper Company	19,681	June 9	55	1280
Paper. Writing	Whiting Paper Company	20,259	Oct. 27	57	416
Paper. Writing	Whiting Paper Company	20,260	Oct. 27	57	416
Paper. Writing	Whiting Paper Company	20,516	Dec. 29	57	1726

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Paper. Writing and type-writer.....	Wyckoff, Seamans & Benedict.....	18,844	Jan. 13	54	142
Paper. Writing and type-writer.....	Wyckoff, Seamans & Benedict.....	18,845	Jan. 13	54	142
Patterns for cutting garments.....	P. C. Perkins.....	19,042	Feb. 17	51	822
Pellets for headache, heartburn, flatulence, and indigestion..	L. T. Greenfield.....	19,957	Aug. 4	56	532
Pencils. Lead.....	Eagle Pencil Company.....	19,410	Apr. 28	55	436
Pencils. Lead.....	Eagle Pencil Company.....	19,427	May 5	55	578
Pencils, pen-holders, and cases, erasers, leads, slates, chalks, and similar stationery.	J. Faber.....	19,098	Feb. 24	54	964
Pens. Fountain.....	E. V. Green & Co.....	20,233	Oct. 20	57	278
Pens. Metallic.....	L. Isaacs & Co.....	20,415	Dec. 1	57	1136
Perfumery.....	Meyer Brothers Drug Company.....	19,842	July 7	56	2
Perfumery and perfumed articles for the toilet.....	C. Blanc.....	20,111	Sept. 8	56	1208
Perfumery and soap.....	S. Palmer.....	19,721	June 16	55	1404
Perfumery and toilet soap.....	Majestic Perfume Co.....	19,190	Mar. 17	54	1422
Perfumery, cosmetics, and like toilet preparations.....	Smith, Kline & French Company.....	19,651	June 2	55	1147
Perfumery, dentifrice, restoratives for the hair, and soap.....	Scottish Drug Depot.....	19,714	June 16	55	1404
Perfumery, soap, powders, cream-paste, and lotions for the toilet.	Lady Grey Perfumery Company.....	19,369	Apr. 21	55	291
Perfumery, soaps, washes, and lotions.....	W. S. Thomson.....	19,004	Feb. 24	54	964
Perfumes.....	Leith & Danforth.....	19,960	Aug. 4	56	532
Perfumes and perfumed soaps and toilet preparations.....	Colgate & Co.....	20,095	Sept. 1	56	1064
Petroleum products.....	C. F. Thumm.....	19,602	May 26	55	1003
Petroleum. Refined.....	Arkell & Douglas.....	19,060	Feb. 24	54	963
Petroleum. Refined.....	Arkell & Douglas.....	19,392	Apr. 21	55	292
Petroleum. Refined.....	Arkell & Douglas.....	19,821	June 30	55	1658
Petroleum. Refined.....	Arkell & Douglas.....	20,308	Nov. 3	57	551
Petroleum. Refined.....	H. W. Peabody & Co.....	19,460	May 12	55	720
Petroleum unguent, jelly, or oil for chapped face and hands..	Doussan French Perfumery Company.....	19,342	Apr. 14	55	145
Photographic cards.....	Scottell & Adams Company.....	18,892	Jan. 20	54	270
Photographic dry-plates.....	J. Carbutt.....	19,476	May 12	55	720
Photographic dry-plates.....	J. Carbutt.....	19,610	June 2	55	1146
Photographic plates and films.....	G. Cramer.....	20,254	Oct. 27	57	416
Photographic plates or films.....	G. Cramer.....	20,185	Oct. 6	57	2
Photographic plates or films.....	G. Cramer.....	20,186	Oct. 6	57	2
Photography. Chemical preparations for use in.....	Action-Gesellschaft für Anilin Fabrikation.....	20,518	Dec. 29	57	1726
Pianos.....	Sohmer & Co.....	20,150	Sept. 15	56	1340
Pianos and repair parts therefor.....	Lawrence & Son Piano Co.....	19,389	Apr. 21	55	292
Pickled fruits and vegetables.....	Gedney Pickle Company.....	19,053	Feb. 17	54	822
Pickles and relishes.....	Lutz Bros.....	19,486	May 12	55	720
Pills.....	Carter Medicine Company.....	19,608	June 2	55	1146
Pills.....	Carter Medicine Company.....	19,609	June 2	55	1146
Pills.....	Carter Medicine Company.....	19,729	June 16	55	1404
Pills.....	Carter Medicine Company.....	19,938	July 28	56	402
Pills.....	Carter Medicine Company.....	20,343	Nov. 17	57	850
Pills.....	Dullam's German Medicine Co.....	20,238	Oct. 20	57	278
Pills.....	M. M. Hardeberg.....	20,116	Sept. 8	56	1208
Pills.....	R. Hindmüt.....	19,431	May 5	55	578
Pills.....	E. Krauth.....	19,232	Mar. 31	54	1717
Pills and a remedy for diseased scalps.....	G. W. Harris.....	20,210	Oct. 13	57	128
Pills, capsules, tablets, and pastils.....	M. S. Greene.....	19,355	Apr. 14	55	145
Pills, troches, diphtheria-cure, and hair-vigor.....	Martin Chemical Co.....	20,468	Dec. 15	57	1432
Pipes, tobacco and snuff boxes, match-safes, cigar and cigarette holders, cigar-cases, and tobacco-pouches.	W. Deunth & Co.....	19,066	Feb. 24	54	964
Plant-tonics and insect-destroyers.....	N. B. Null.....	20,350	Nov. 10	57	699
Plaster. Calcined.....	Western Plaster Works.....	20,280	Oct. 27	57	416
Plasters.....	Carter Medicine Company.....	19,875	July 14	56	146
Plasters and salves.....	C. A. Staab.....	19,147	Mar. 3	54	1118
Plasters, pills, and salve.....	Cura Regia Medicine Co.....	19,511	May 19	55	870
Plows. One-horse steel.....	B. F. Avery & Sons.....	20,243	Oct. 20	57	278
Plows and cultivators.....	Mansur & Tebbetts Implement Company.....	18,787	Jan. 6	54	3
Plushes.....	Contrexeville Manufacturing Company.....	19,065	Feb. 24	54	964
Plushes.....	Contrexeville Manufacturing Company.....	19,820	June 30	55	1658
Poison for vermin.....	Haskin & Todd.....	18,910	Jan. 27	54	394
Poison. Rat.....	F. Schoureck.....	19,472	May 12	55	720
Polishing metals, glass, wood, and leather. Compound for.....	G. W. Hoffman.....	19,970	Aug. 4	56	532
Pomade for the complexion.....	M. N. Roberts.....	18,944	Feb. 3	54	511
Pop-corn.....	H. R. Wright.....	20,003	Aug. 11	56	666
Porcelain, crockery, earthenware, glass, and faience.....	E. Gérard, Dufraissex & Morel.....	18,993	Feb. 10	54	667
Porcelain ornaments and toilet and table ware.....	Haviland & Co.....	19,257	Mar. 31	54	1717
Porcelain ornaments and toilet and table ware.....	Haviland & Co.....	19,258	Mar. 31	54	1718
Porcelain ware and ornaments.....	Haviland & Co.....	19,569	May 26	55	1002
Porcelain water-closets, basins, and bath-wastes.....	McCambridge & Co.....	20,070	Aug. 25	56	932
Porter.....	J. H. McKay and E. Laurance.....	20,223	Oct. 13	57	128
Powder for the prevention of odors from perspiring feet.....	L. A. Kimberly.....	20,192	Oct. 6	57	2
Powder for the toilet, nursery, and similar purposes.....	Comfort Powder Company.....	19,977	Aug. 4	56	532
Powder, fuses, caps, and other articles for blasting purposes.....	New York Powder Company.....	18,913	Jan. 27	54	394
Powders, pills, or liquid preparations for the cure of intemperance.	W. R. Brown.....	20,346	Nov. 17	57	850
Preparation for use in gonorrhea and gleet.....	F. W. Baker and H. Levy.....	20,094	Sept. 1	56	1064
Preserved, bottled, and canned fruits and vegetables.....	R. Gordon.....	19,958	Aug. 4	56	532
Preserved vegetables, meats, fish, and fruit.....	H. Lins & Sons.....	19,488	May 12	55	720
Printed and dyed fabrics.....	Arnold Print Works.....	19,954	Aug. 4	56	532
Publications. Monthly.....	Noble & Haanel.....	18,809	Jan. 6	54	3
Publications. Serial.....	W. C. Gates.....	20,471	Dec. 22	57	1600
Pulleys. Belt.....	Dodge Manufacturing Company.....	19,665	June 9	55	1280
Phil-grinders.....	Scott & Roberts Company.....	19,516	July 21	56	286
Purgative compounds. Liquid.....	A. B. Meurer.....	19,346	Apr. 14	55	145
Puzzles.....	P. H. Wheeler.....	19,384	Apr. 21	55	292
Radiators. Steam or hot-water.....	A. A. Griffling Iron Company.....	20,296	Nov. 3	57	550
Radiators. Steam or hot-water.....	A. A. Griffling Iron Company.....	20,297	Nov. 3	57	550

Alphabetical list of trade-marks—Continued.

Title.	Name.	No.	Date.	Official Gazette.	
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Railway equipment. Certain articles of	Q. and C. Company	20,084	Aug. 25	56	932
Railway-rails, fish-plates, bolts and spikes, rail-chairs, and ties.	P. H. Dudley	19,520	May 19	55	870
Ranges. Cooking-	J. Tettelbach	18,891	Jan. 20	54	270
Razor-strops.	W. A. Shull	20,399	Nov. 24	57	1006
Razors.	A. Kastor & Bros.	20,507	Dec. 29	57	1726
Razors.	J. Sellers & Sons.	19,143	Mar. 3	54	1118
Razors, pocket-knives, and scissors.	Graef & Schmidt	20,482	Dec. 22	57	1600
Razors, strops, and shears	P. A. Clanberg	19,654	June 2	55	1147
Refrigerators.	Alaska Refrigerator Company	20,109	Sept. 8	56	1208
Refrigerators.	Alaska Refrigerator Company	20,110	Sept. 8	56	1208
Refrigerators.	C. H. Leonard	20,326	Nov. 3	57	551
Remedies. Certain named.	J. C. Batdorf	19,810	June 30	55	1657
Remedies. Certain named.	H. P. Ernst	19,656	June 2	55	1147
Remedies. Certain named.	A. Leonhardt & Co.	19,839	July 7	56	2
Remedies. Certain named.	R. N. Pool	20,534	Dec. 29	57	1726
Remedies. Certain named.	Protection Paper Co.	19,170	Mar. 10	54	1270
Remedies. Certain named.	Protection Paper Co.	19,647	June 2	55	1147
Remedies. Certain named.	C. A. Furtle	19,077	Feb. 24	54	964
Remedies. Certain named.	Warren-Brown Company	19,218	Mar. 24	54	1566
Remedies. Certain named.	Warren-Brown Company	19,219	Mar. 24	54	1566
Remedies for catarrhal affections	J. H. Sumser	19,861	July 7	56	2
Remedies for certain named diseases	Smith Brothers	19,868	July 14	56	146
Remedies for coughs, colds, and consumption	Prue & Mooers	19,545	May 19	55	871
Remedies for diseases of horses	G. K. Bailey	19,873	July 14	56	146
Remedies for diseases of horses, swine, and poultry	J. Dreis	20,005	Aug. 11	56	666
Remedies for diseases of the blood, liver, kidneys, and bowels, and for dyspepsia, headache, biliousness, and neuralgia.	McClure Drug Company	20,092	Sept. 1	56	1064
Remedies for diseases of the blood, liver, kidneys, and bowels, dyspepsia, headache, biliousness, and neuralgia.	McClure Drug Company	20,039	Aug. 18	56	808
Remedies for diseases of the blood, liver, stomach, kidneys, &c	J. E. Healy and C. Bigelow	20,068	Aug. 25	56	932
Remedies for diseases of the blood, throat, and lungs	L. Wilbur	19,603	May 26	55	1003
Remedies for diseases of the kidneys and kindred organs.	J. C. Batdorf	19,811	June 30	55	1657
Remedies for diseases of the stomach and bowels	Quaker Medical Association	19,930	July 28	56	402
Remedies for diseases of the stomach and bowels, including teething troubles.	W. Woodward	19,979	Aug. 4	56	532
Remedies for diseases of the throat and lungs	G. E. Hurd	19,926	July 28	56	402
Remedies for diseases of the throat and lungs	A. O. Kring	19,121	Mar. 3	54	1118
Remedies for diseases of women	J. B. Colombin & Co.	19,746	June 23	55	1534
Remedies for external and internal uses in diseases of the throat, lungs, and stomach.	C. P. McCaffrey	20,020	Aug. 11	56	666
Remedies for external and internal use. Vegetable.	American Herbal Medicine Company.	18,822	Jan. 13	54	142
Remedies for gout and rheumatism	W. Whann	19,717	June 16	55	1404
Remedies for insomnia	A. Leonhardt & Co.	19,840	July 7	56	2
Remedies for rheumatism and kindred diseases. Internal.	G. F. Myers	20,409	Nov. 24	57	1006
Remedies for rheumatism, neuralgia, disorders of the stomach, and the like.	H. J. Meyer	20,464	Dec. 15	57	1432
Remedies for skin diseases	B. Jaffé & Darmstaedter	20,505	Dec. 29	57	1726
Remedies for throat and lung diseases	J. C. Batdorf	19,808	June 30	55	1657
Remedies for various diseases. Family	Dr. Russell Medicine Company	20,121	Sept. 8	56	1208
Remedy. Female.	W. H. McClure	20,081	Aug. 25	56	932
Remedy for blood and liver diseases	D. G. Potts	19,260	Mar. 31	54	1718
Remedy for catarrh and hay fever	Dalrymple, Warner & Co.	18,976	Feb. 10	54	666
Remedy for catarrhal affections and other mucous diseases.	J. H. Sumser	20,195	Oct. 6	57	2
Remedy for certain named diseases	A. Bridgman	18,798	Jan. 6	54	3
Remedy for chapped face and hands	W. H. Robert, Jr.	19,399	Apr. 21	55	292
Remedy for chapped face and hands. Liquid	H. Lambeck, Jr.	19,463	May 12	55	719
Remedy for chills	Lemon Chemical Company	19,891	July 21	56	266
Remedy for cholera and other stomach complaints	Hayward & Bro.	19,031	Feb. 17	54	822
Remedy for cholera, cramps, diarrhea, and flux. Liquid	H. C. Lemke	20,428	Dec. 1	57	1136
Remedy for constipation	E. A. Derby	19,204	Mar. 24	54	1566
Remedy for coughs	C. E. Davis & Co.	19,335	Apr. 14	55	144
Remedy for coughs and colds	A. G. Bassett	19,532	May 19	55	871
Remedy for coughs, colds, and like diseases	E. S. Beshore	19,112	Mar. 3	54	1118
Remedy for coughs, colds, constipation, and diseases of the blood.	Prunine Medicine Company	18,791	Jan. 6	54	3
Remedy for diarrhea	Hickman & Lindsly	19,796	June 30	55	1657
Remedy for diseases of horses and cattle	W. J. Abbeey	19,418	May 5	55	577
Remedy for diseases of poultry	W. J. Abbeey	19,417	May 5	55	577
Remedy for diseases of the blood	Union Medicine Company	20,485	Dec. 22	57	1600
Remedy for diseases of the blood and liver	J. W. Jones	18,866	Jan. 20	54	270
Remedy for diseases of the blood, liver, and kidneys	T. Kemink	19,033	Feb. 17	54	822
Remedy for diseases of the liver	J. E. Hetherington	18,916	Feb. 3	54	510
Remedy for diseases of the liver	G. S. Pitcher	20,445	Dec. 8	57	1284
Remedy for diseases of the stomach	Vignes & Pepin	20,405	Nov. 24	57	1006
Remedy for diseases of the stomach and children's diseases.	Webb Manufacturing Company	18,821	Jan. 6	54	4
Remedy for diseases of the stomach, bowels, liver, and kidneys	M. E. Welch	19,294	Apr. 7	55	3
Remedy for diseases of the stomach, &c. Internal and external	W. B. Enas	20,313	Nov. 3	57	551
Remedy for diseases of the throat and lungs	C. Leslie & Co.	19,122	Mar. 3	54	1118
Remedy for diseases of the throat, chest, and lungs	M. H. Scureman	20,321	Nov. 3	57	551
Remedy for diseases peculiar to women	Silver Fern Remedy Co.	20,379	Nov. 17	57	850
Remedy for dropsy	J. Edwards	18,826	Jan. 13	54	142
Remedy for dyspepsia	G. C. Frye	19,336	Apr. 14	55	144
Remedy for dyspepsia	G. B. Layton	18,918	Feb. 3	54	510
Remedy for dyspepsia and anæmia	C. F. Hausmann	19,657	June 2	55	1147
Remedy for epilepsy and other nervous diseases	S. A. Richmond	19,152	Mar. 10	54	1270
Remedy for epilepsy and other nervous diseases	S. A. Richmond	19,722	June 16	55	1404
Remedy for fevers, tuberculosis, abscesses, and rheumatism	Farberwerke, vormals Meister, Lucius & Brüning	20,452	Dec. 8	57	1284
Remedy for fits	J. H. Dunn	20,403	Nov. 24	57	1006
Remedy for gonorrhœa	R. T. Kelleam	19,702	June 16	55	1404
Remedy for hay-fever and catarrhal diseases	N. Tucker	18,938	Feb. 3	54	511

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Title.	Name.	No.	Date.	Official Gazette.	
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Remedy for headache and neuralgia	Kohler Manufacturing Company	18,785	Jan. 6	54	3
Remedy for headache, nervousness, and insomnia	E. T. Laidley	18,786	Jan. 6	54	3
Remedy for headache, neuralgia, la grippe, nervousness, sleeplessness, and to reduce temperature	A. J. Ruhl	20,502	Dec. 29	57	1726
Remedy for headache, rheumatism, neuralgia, and pains in the chest and stomach	Sutliff & Co	20,500	Dec. 22	57	1600
Remedy for headache, throat and lung troubles, and for pills	Begrow Brothers	19,535	May 19	55	871
Remedy for healing purposes in man or beast	E. Hazen & Co	19,972	Aug. 4	56	532
Remedy for hog-cholera	Huber Specific Co	19,851	July 7	56	2
Remedy for hog-cholera	E. H. S. Woods	20,216	Oct. 13	57	128
Remedy for indigestion	Assimilene Manufacturing Co	19,039	Feb. 17	54	822
Remedy for kidney and liver diseases	J. W. Bowles	20,261	Oct. 27	57	416
Remedy for liver and kidney diseases	Harter Medical Co	18,903	Jan. 27	54	394
Remedy for lung troubles and nervous diseases	Bell Medicine Co	19,016	Feb. 17	54	821
Remedy for malarial diseases	I. L. Johnson	20,374	Nov. 17	57	850
Remedy for nervous diseases	Dr. Miles Medical Company	19,975	Aug. 4	56	532
Remedy for nervous diseases	Nerve Seed Co	20,465	Dec. 15	57	1432
Remedy for nervous diseases	J. Robertson	18,958	Feb. 10	54	666
Remedy for nervous diseases	J. Robertson	20,318	Nov. 3	57	551
Remedy for nervous disorders	E. H. Foster and W. E. Baker	20,272	Oct. 27	57	416
Remedy for piles	A. S. Bacon	19,562	May 26	55	1002
Remedy for rheumatism	M. J. Cosman	19,937	July 28	56	402
Remedy for rheumatism	Crescent Rheumatic Medicine Co	20,258	Oct. 27	57	416
Remedy for rheumatism	H. Vosburgh	18,949	Feb. 3	54	511
Remedy for rheumatism and gouty diathesis	Reed & Cairnrick	20,194	Oct. 6	57	2
Remedy for rheumatism and kindred ailments	M. Rosenberg	19,130	Mar. 3	54	1118
Remedy for rheumatism and similar diseases	J. C. Batdorf	19,809	June 30	55	1657
Remedy for rheumatism, gout, and neuralgia	A. Lilly	19,454	May 12	55	719
Remedy for rheumatism, neuralgia, and headache	J. J. Spieker	19,517	May 19	55	870
Remedy for rheumatism, neuralgia, and like diseases	J. D. Groves	19,231	Mar. 31	54	1717
Remedy for rheumatism, neuralgia, and similar ailments	R. H. Andrews	19,201	Mar. 24	54	1566
Remedy for scrofula and kindred diseases	J. C. Barnes & Co	19,333	Apr. 14	55	144
Remedy for scrofula and kindred diseases of the blood	J. M. Neathery	19,843	July 7	56	2
Remedy for skin diseases	F. J. G. Zethraeus	19,531	May 19	55	871
Remedy for skin diseases. Internal and external	P. A. Mandabach	19,123	Mar. 3	54	1118
Remedy for stomach and bowel complaints, and for salve	W. T. Barnard	19,551	May 19	55	871
Remedy for stomach, liver, kidney, and other troubles	S. W. Rogers	20,292	Nov. 3	57	550
Remedy for syphilis and rheumatism	C. F. McElrath	19,998	Aug. 11	56	666
Remedy for the blood	J. Potter & Co	19,217	Mar. 24	54	1566
Remedy for the blood. Botanical	A. B. Scutt	20,137	Sept. 15	56	1340
Remedy for the cure of anæmia, chlorosis, and similar troubles	A. Gude & Co	20,209	Oct. 13	57	128
Remedy for the cure of catarrh	P. M. Hunt	19,154	Mar. 10	54	1270
Remedy for the cure of catarrhal diseases	D. Evans	19,967	Aug. 4	56	532
Remedy for the cure of rheumatism	J. E. Plouf	20,224	Oct. 13	57	128
Remedy for the cure of rheumatism, neuralgia, and similar complaints	S. D. Selby & Co	19,547	May 19	55	871
Remedy for the cure of stomach, blood, liver, and kidney troubles	R. H. Andrews	19,202	Mar. 24	54	1566
Remedy for the piles	M. L. Jewesson	20,442	Dec. 8	57	1284
Remedy for the respiratory organs and the blood	J. L. Bastford	19,534	May 19	55	871
Remedy for throat and lung diseases	Nonantum Worsted Company	19,036	Feb. 17	54	822
Remedy for throat and lung diseases	W. H. Brewster	20,523	Dec. 29	57	1726
Remedy for throat and lung troubles	J. F. Goldaine	19,759	June 23	55	1534
Remedy for throat and lung troubles and general debility	R. E. Blount	19,530	May 19	55	871
Remedy for toothache, neuralgia, and other nervous diseases	W. Tack	19,165	Mar. 10	54	1270
Remedy. Headache	W. H. Galbraith	19,740	June 23	55	1534
Remedy. Headache	W. H. and S. C. Sweeting	19,038	Feb. 17	54	822
Remedy. Headache	A. C. Vosseler	19,934	July 28	56	402
Remedy. Headache	C. Wright Medicine Company	19,340	Apr. 14	55	144
Remedy. Kidney, liver, and bladder	Kilmer & Co	19,161	Mar. 10	54	1270
Resolvent and tonic	Curia Regia Medicine Co	19,510	May 19	55	870
Ribbons	Gartner & Friedenheit	19,699	June 16	55	1404
Ribbons	Giron Frères	19,213	Mar. 24	54	1566
Rice. Prepared	Crystal Rice Milling Company	19,241	Mar. 31	54	1717
Rings. Plated finger	Palmer & Capron	19,827	June 30	55	1658
Rings. Plated finger	Palmer & Capron	19,828	June 30	55	1658
Rock-candy flavored for use in cordials	J. U. O'Meara	19,126	Mar. 3	54	1118
Rubber boots and shoes	Lambertville Rubber Company	19,557	May 19	55	872
Rubber for use in dentistry. Vulcanizable	James, Walker & Co	19,226	Mar. 24	54	1566
Rubber goods	C. Macintosh & Company	18,788	Jan. 6	54	3
Rubber goods. Mechanical	Revere Rubber Company	19,752	June 23	55	1534
Rubber tubing for electrical purposes	Revere Rubber Company	19,607	May 26	55	1003
Rum	Bacardi & Co	20,172	Sept. 29	56	1568
Safety-pins	Consolidated Safety Pin Co	18,832	Jan. 13	54	142
Salt	Bradley Salt Company	20,048	Aug. 18	56	808
Salt. Dairy and table	Retsof Mining Company	19,141	Mar. 3	54	1118
Salt. Dairy and table and coarse and fine	Bradley Salt Company	19,980	Aug. 4	56	532
Salt for curing meats. Preserving	Bradley Salt Company	20,067	Aug. 25	56	932
Salt. Table	J. Horner	19,632	June 2	55	1147
Salt. Table	A. Kerr, Bro. & Co	19,320	Apr. 14	55	144
Salt. Table	A. Kerr, Bro. & Co	19,562	May 12	55	720
Salt. Table	A. Kerr, Bro. & Co	19,574	May 26	55	1002
Salt. Table and dairy	Hartlepoons' Salt and Brine Company	20,087	Aug. 25	56	932
Salt. Table, curing, and dairy	Hartlepoons' Salt and Brine Company	20,088	Aug. 25	56	932
Salts derived from the water of the Marienbad spring. Remedial	Müller, Philipp & Co	20,123	Sept. 8	56	1208
Salts derived from the Marienbad spring-water. Tablets or lozenges containing	Müller, Philipp & Co	20,124	Sept. 8	56	1208
Salve	G. E. Hoffman	19,032	Feb. 17	54	822
Salve	C. B. Hall and A. B. Mathers	19,950	July 28	56	402
Salve	C. A. Thies	19,529	May 19	55	871
Salve and cough-syrup. Corn	Kohler Manufacturing Company	18,867	Jan. 20	54	270
Salve. Corn	N. W. Stiles	19,210	Mar. 24	54	1566

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Title.	Name.	No.	Date.	Official Gazette.	
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Salve, cough cure, remedy for diarrhea, and preparation for the hands and face. Eye.	Baker & Keen	20,171	Sept. 29	56	1568
Salve. Pile.	P. W. Cheatham	20,217	Oct. 13	57	128
Salves	S. F. Page	20,011	Aug. 11	56	666
Salves and ointments	L. Miles	20,164	Sept. 22	56	1452
Salves, cough-sirups, and remedies for diseases of the blood.	J. Marx & Co	19,771	June 30	55	1656
Salves, pills, and remedies for skin diseases	Wheatley Brothers	19,428	May 5	55	578
Sandstone. Brown or red	Peachblow Standstone Company	20,166	Sept. 22	56	1452
Sardines, chocolate, preserves, and mushrooms	T. W. Stemmler	19,438	May 5	55	578
Sarsaparilla beverage	J. Schweppe & Co	19,132	Mar. 3	54	1118
Scales. Weighing	Jones of Binghamton	19,572	May 26	55	1002
School-seats	Manitowoc Manufacturing Company	20,459	Dec. 15	57	1432
Screws, bolts, nails, nuts, washers, rivets, and kindred articles. Metallic	American Screw Company	20,253	Oct. 27	57	416
Scythe-stones	C. E. Strong	20,131	Sept. 15	56	1340
Seed. Bird	French, Richards & Co	19,256	Mar. 31	54	1717
Seed meal. Cotton	S. Steinhardt	19,932	July 28	56	402
Seed. Timothy	Albert Dickinson Company	20,028	Aug. 18	56	807
Seed. Timothy	Albert Dickinson Company	20,029	Aug. 18	56	808
Seed. Timothy	Albert Dickinson Company	20,030	Aug. 18	56	808
Seeds, bulbs, plants, trees, and shrubbery	J. L. Childs	19,255	Mar. 31	54	1717
Seeders and grain-drills	Dowagiac Manufacturing Company	20,447	Dec. 8	57	1234
Seeders and grain-drills	Dowagiac Manufacturing Company	20,474	Dec. 22	57	1600
Sewing-machines	Demorest Fashion and Sewing Machine Company	19,776	June 30	55	1656
Sewing-machines	E. Ridley & Sons	20,536	Dec. 29	57	1726
Sewing-machines and attachments	New Home Sewing Machine Company	20,512	Dec. 29	57	1726
Sewing-machines and attachments	J. P. Page	19,128	Mar. 3	54	1118
Sewing-machines and attachments and parts thereof	Singer Manufacturing Company	20,065	Aug. 18	56	808
Sewing-machines and parts thereof	Union Special Sewing Machine Company	20,014	Aug. 11	56	666
Sewing-machines and parts thereof	Union Special Sewing Machine Company	20,015	Aug. 11	56	666
Sewing-machines and parts thereof	Union Special Sewing Machine Company	20,016	Aug. 11	56	666
Shampoo-cream	E. Baich	20,199	Oct. 6	57	2
Shaving compound. Liquid	J. P. Cannon	19,540	May 19	55	871
Shaving-cream	W. H. Hall	19,168	Mar. 10	54	1270
Shawls. Woolen	F. T. Bauch	19,254	Mar. 31	54	1717
Shears and scissors, and table, pocket, and shaving cutlery	A. J. Jordan	19,236	Mar. 31	54	1717
Shears and scissors, and table, pocket, and shaving cutlery	A. J. Jordan	19,237	Mar. 31	54	1717
Shears, scissors, and table, pocket, and shaving cutlery	A. J. Jordan	19,701	June 16	55	1404
Sheet-iron and steel, and lead-coated and tin plates,terne plates, and taggers	E. P. & W. Baldwin	19,096	Feb. 24	54	964
Sheet-iron, tin and terne plates, and lead coated sheets	E. P. & W. Baldwin	18,967	Feb. 10	54	666
Sheet-iron, tin plates, and terne plates	Meltingrillith Company	18,794	Jan. 6	54	3
Sheet-iron, tin plates, and terne plates	Meltingrillith Company	18,816	Jan. 6	54	3
Sheet-iron, tin plates, and terne plates	Meltingrillith Company	18,817	Jan. 6	54	3
Sheet-iron, tin plates, and terne plates	Meltingrillith Company	18,818	Jan. 6	54	3
Sheet-iron, tin plates, and terne plates	Meltingrillith Company	18,819	Jan. 6	54	3
Sheet-iron, tin, terne, and black plates	J. S. Tregoning & Son	19,845	July 7	56	2
Sheet-iron, tin, terne, and black plates	J. S. Tregoning & Son	19,846	July 7	56	2
Sheet-iron, tin, terne, and black plates	J. S. Tregoning & Son	19,847	July 7	56	2
Sheet-iron, tin, terne, and black plates	J. S. Tregoning & Son	19,848	July 7	56	2
Sheet-iron, tin, terne, and black plates	J. S. Tregoning & Son	19,849	July 7	56	2
Sheet-iron, tin, terne, and black plates	J. S. Tregoning & Son	19,850	July 7	56	2
Sheet-metal ware. Enamelled	J. Baumann's Wittwe	19,005	Feb. 24	54	964
Sheeting, shirting, and drilling	Enoree Manufacturing Company	19,505	May 26	55	1003
Sheetings and shirtings. Cotton	Jackson Company	19,760	June 23	55	1534
Sheetings and shirtings. Cotton	Jackson Company	19,761	June 23	55	1534
Sheetings and shirtings. Cotton	Jackson Company	19,762	June 23	55	1534
Sheetings, shirtings, and drills. Cotton	Hennetta Mills	20,147	Sept. 15	56	1340
Shirtings and fine cambrics	P. Whitin Manufacturing Company	19,882	July 14	56	146
Shirtings and fine cambrics	P. Whitin Manufacturing Company	19,910	July 21	56	266
Shirts	S. Deutsch	19,521	May 19	55	870
Shirts	W. M. Steppacher	19,471	May 12	55	720
Shirts and waists for women and children	Corliss Bros. & Co	19,612	June 2	55	1146
Shirts, collars, and cuffs	Firm of J. Wanamaker	19,475	May 12	55	720
Shirts, collars, and cuffs. Men's	G. D. Bighmie	19,182	Mar. 17	54	1422
Shirts, drawers, and overalls	Middlesex Manufacturing Company	18,926	Feb. 3	54	510
Shirts, drawers, pantaloons, overalls, jerseys, suspenders, and neckties	L. B. Smith	19,209	Mar. 24	54	1566
Shirts. Men's	S. Deutsch	19,052	Feb. 17	54	822
Shirts. Men's	Dunville & Co	19,522	May 19	55	871
Shoe-tacks	Dunbar, Hobart & Co	19,315	Apr. 14	55	144
Shoes. Calf	A. W. Shaw & Co	20,365	Nov. 10	57	699
Shoes. Children's	Lamkin & Foster	19,687	June 9	55	1280
Shoes. Children's dress	J. Mandell & Co	19,524	May 19	55	871
Shoes. Ladies' and misses'	Bentley & Olmsted	20,227	Oct. 13	57	128
Shoes. Men's	E. T. Harvell & Co	19,709	June 16	55	1404
Shoes. Men's, women's, and children's	J. S. Allen	19,866	July 14	56	146
Shovels, axes, hatchets, and hoes	Struller, Meyer & Schumacher	19,439	May 5	55	578
Silesia	A. G. Hyde & Sons	19,050	Feb. 17	54	822
Silk and wool fabrics	Sharpless Bros	19,361	Apr. 14	55	145
Silk dress goods	American Silk Dyeing and Finishing Co.	19,394	Apr. 21	55	292
Silk dress goods and broad silks	Rettiger Allen Company	20,458	Dec. 8	57	1284
Silk piece-goods	Lion Silk Association	18,806	Jan. 6	54	3
Silver. Articles made wholly or in part of	D. Low	18,838	Jan. 13	54	142
Silver. Articles made wholly or partly of	D. Low	19,099	Feb. 24	54	964
Silver, flat, and table ware	T. V. Dickinson	19,905	July 21	56	266
Sirups for beverages. Flavoring	Embrey & Talbott	19,925	July 28	56	402
Sirup. Soda-water	W. E. Bosshard	19,728	June 16	55	1404

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Skin diseases. Preparation for	D. D. Harr.	18,782	Jan. 6	51	2
Sun	A. Beck & Company	18,796	Jan. 6	54	3
Soap	Cura Regia Medicine Co.	19,919	July 21	56	266
Soap	Excelsior Springs Company	19,567	May 26	55	1002
Soap	Procter & Gamble Company	19,724	June 16	55	1401
Soap	Procter & Gamble Company	19,725	June 16	55	1401
Soap. Family	N. K. Fairbank & Company	19,674	June 9	55	1200
Soap. Family	N. K. Fairbank & Company	19,696	June 16	55	1404
Soap. Family	N. K. Fairbank & Company	19,909	Aug. 4	56	532
Soap. Family	N. K. Fairbank & Company	20,112	Sept. 8	56	1208
Soap for the feet	Terra Firma Soap Co.	19,663	June 2	55	1148
Soap for the toilet and laundry	H. C. Davis, Jr., & Co.	20,207	Oct. 13	57	128
Soap for the toilet and laundry	H. C. Davis, Jr., & Co.	20,208	Oct. 13	57	128
Soap. Hard	J. H. Keller's Soap Works	19,927	July 28	56	402
Soap. Kitchen and laundry	C. S. Higgins	19,813	July 7	56	2
Soap. Laundry	J. Armstrong & Co.	19,671	June 9	55	1280
Soap. Laundry	Detroit Electric Soap Company	20,188	Oct. 6	57	2
Soap. Laundry	Kansas City Soap Company	19,140	Mar. 3	54	1118
Soap. Laundry	Procter & Gamble	19,188	Mar. 17	54	1422
Soap. Laundry	Procter & Gamble	19,189	Mar. 17	54	1422
Soap. Laundry	G. Reichhard	20,149	Sept. 15	56	1340
Soap. Laundry and toilet	Water King Soap Company	19,144	Mar. 3	54	1118
Soap. Laundry and toilet	Butler & Hannum Brothers	19,745	June 23	55	1534
Soap. Laundry and toilet	B. A. Lynde & Son Company	18,954	Feb. 10	54	666
Soap, perfumery, cosmetics, and like toilet preparations	W. S. Thomson	19,151	Mar. 10	54	1270
Soap, perfumery, cosmetics, and similar articles. Toilet	F. S. Cleaver & Sons	19,642	June 2	55	1147
Soap, perfumery, powder, and hair-restoratives. Toilet	L. F. Marshall	19,187	Mar. 17	54	1422
Soap-powder	O. G. Keller	20,161	Sept. 22	56	1452
Soap-powder. Toilet	C. Davis & Co.	19,500	May 12	55	720
Soap. Skin and scalp	S. D., C. W., and R. B. Robison	20,165	Sept. 22	56	1452
Soap. Toilet	W. H. Hall	20,009	Aug. 11	56	666
Soap. Toilet	N. B. Lichty	19,503	May 12	55	720
Soap. Toilet	Milhens & Kropff	19,605	May 26	55	1003
Soap. Toilet	Ostrom & Lincoln	19,240	Mar. 31	54	1717
Soap. Toilet	D. W. Stallings	20,270	Oct. 27	57	416
Soap. Toilet and laundry	Colgate & Co.	18,951	Feb. 10	54	666
Soap. Toilet and laundry	Enterprise Soap Works	20,433	Dec. 1	57	1136
Soap. Toilet, bath, and laundry	E. P. Dresser Soap Company	20,407	Nov. 24	57	1006
Soaps and lotions. Toilet	E. Kimmer	19,244	Mar. 31	54	1717
Soaps, detergents, starch, and bluing	Lever Brothers	19,423	May 5	55	578
Soaps, detergents, starch, blue, and washing and bleaching powders	Liverpool Patent Soap Company	20,483	Dec. 22	57	1600
Soaps, oils, powder, and similar perfumed toilet preparations. Toilet	C. Blanc	19,563	May 26	55	1002
Soaps, oils, powders, and like articles. Toilet	C. Blanc	19,566	May 26	55	1002
Soaps, oils, powders, and similar perfumed toilet preparations	C. Blanc	19,564	May 26	55	1002
Soaps, oils, tooth-powders, and similar perfumed toilet preparations. Toilet	C. Blanc	19,565	May 26	55	1002
Soaps, powders, pomades, and like perfumed toilet preparations	Smith, Kline & French Company	19,579	May 26	55	1002
Soaps. Washing and toilet	H. Finn & Sons	19,768	June 30	55	1656
Soda. Cooking	Southern Soda Works	18,828	Jan. 13	54	142
Soda-water	W. P. Sheldon	19,131	Mar. 3	54	1118
Soda-water, ginger-ale, and beverages containing honey	St. Louis Honey-Wine Co.	18,882	Ja. 20	54	270
Soda-waters and medicated drinks	Chicago Consolidated Bottling Company	19,673	June 9	55	1280
Soldering-flux	Baltimore Chemical Company	19,693	June 16	55	1404
Solid, plated, and composition ware	Ledig & Way	19,406	Apr. 28	55	436
Soups. Prepared	Chapman & Meehan	18,799	Jan. 6	54	3
Spices	H. D. Umbstaetter	20,360	Nov. 10	57	699
Spices and herbs for flavoring foods. Prepared	Crescent Manufacturing Company	20,235	Oct. 20	57	278
Spirits for mixing paints, oils, and varnishes	J. Horner	19,667	June 9	55	1280
Sponges	Glidden & Joy Varnish Company	20,353	Nov. 10	57	699
	Anelote & Rock Island Sponge Company	20,307	Nov. 3	57	551
Spoons and other table-ware. Gold, silver, and plated	M. B. Logan	20,375	Nov. 17	57	850
Spoons, forks, and articles known as flat ware	H. M. Hill & Co.	19,921	Mar. 24	54	1566
Spoons, forks, and articles known as flat ware	L. Kimball & Son	19,922	Mar. 24	54	1566
Spoons, forks, and other flat ware	A. Feldenheimer	19,404	Apr. 28	55	436
Spoons, forks, and table-ware. Solid and plated	Rand & Crane	19,436	May 5	55	578
Spoons, forks, and table-ware. Solid and plated	G. E. Shaw	19,736	June 16	55	1404
Spoons, forks, bells, plates, and hollow ware for the table. Silver and plated	J. H. Hutchinson	19,770	June 30	55	1656
Spoons. Gold, silver, and plated	N. G. Wood & Sons	20,515	Dec. 29	57	1726
Spoons, knives, forks, and other articles of flat ware	H. G. Hudson	20,220	Oct. 13	57	128
Spoons, knives, forks, and other articles of flat ware	H. G. Hudson	20,221	Oct. 13	57	128
Sprinklers. Automatic	R. Wood	19,252	Mar. 31	54	1717
Stain and grease eradicator	R. N. Cunningham	19,611	June 2	55	1146
Stain for leather. Black	J. K. Krieg & Co.	20,533	Dec. 29	57	1726
Stamps for numbering, lettering, or marking. Steel	E. J. Krieger & Company	20,371	Nov. 17	57	850
Starch. Laundry	G. Fischer	20,239	Oct. 20	57	278
Starch. Laundry	Wax Starch Company	19,443	May 5	55	578
Starch. Laundry	J. W. Wright & Co.	20,139	Sept. 15	56	1340
Steam and hot-water heaters and furnaces	Superior Furnace Company	19,198	Mar. 17	54	1422
Steam-boilers	W. E. Kelly	18,941	Feb. 3	54	511
Steam-engines	A. L. Ide & Son	19,501	May 12	55	720
Steel castings and other like forms	J. F. Hall	19,096	July 21	56	266
Steel-enamelled kitchen-ware	Haberman Manufacturing Company	20,077	Aug. 25	56	932
Steel plates. Bessemer	E. Davies & Sons	19,298	Apr. 7	55	4
Stockings	Lindeker, Warner & Scharmeier	20,314	Nov. 3	57	551
Stove furniture. Kitchen	A. G. Patton	19,127	Mar. 3	54	1118
Stove paste polish	H. C. Bomhard	19,113	Mar. 3	54	1118
Stove-polish	J. B. Dyer	19,630	June 2	55	1147

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Stove-polish	R. T. Sargent	19,799	June 30	55	1657
Stove-polish	J. R. Stoeckel	19,082	Feb. 24	54	964
Stoves and burners. Vapor	Standard Lighting Company	19,638	June 2	55	1147
Stoves and ranges. Cooking and heating	Bowie & Terhune	18,932	Feb. 3	54	511
Stoves. Heating and cooking	F. A. Klaine	19,238	Mar. 31	54	1717
Stoves. Oil	Silver & Company	19,985	Aug. 4	56	532
Stoves, ranges, and furnaces	Anshutz, Bradberry & Co.	20,345	Nov. 10	57	699
Sugar-bleaching compound	D. D. Williamson	20,281	Oct. 27	57	416
Sugar. Phosphate for use in manufacturing	Provident Chemical Works	19,206	Mar. 24	54	1566
Sugar. Prepared icing	F. J. Gibson	20,475	Dec. 22	57	1600
Supporters	Sigsbee Manufacturing Company	20,322	Nov. 3	57	551
Suppositories for female diseases	Victor Medical Association	19,101	Feb. 24	54	964
Suppositories for women	M. M. Herrold	19,921	July 28	56	401
Suppositories. Vaginal	E. B. Lambert	19,034	Feb. 17	54	822
Surgical appliances	R. A. Brown	19,334	Apr. 14	55	144
Suspenders and braces. Men's	Silvertmann Bros. & Co.	20,341	Nov. 10	57	698
System-renovator, cough-sirup, catarrh-balm, and worm-powders.	J. A. Burgoon	19,646	June 2	55	1147
Table-ware technically known as flat ware	W. H. Lyon	18,906	Jan. 27	54	394
Tablets for dissolving in water to form a beverage	Reed & Carnrick	20,401	Nov. 24	57	1006
Tablets for duplicating manuscript	L. Neuhans	19,109	Mar. 3	54	1117
Tackle-blocks	Fulton Iron and Engine Works	19,666	June 9	55	1280
Tailors' trimmings. Silk, cotton, and woolen goods used for	H. Newman	20,090	Sept. 1	56	1064
Tanning extract and its by-products	Canagra Supply Company	20,333	Nov. 10	57	698
Tanning leather. Compound for	F. E. Atteaux & Co.	19,736	June 16	55	1404
Tanning leather. Compound for	F. E. Atteaux & Co.	19,727	June 16	55	1404
Tea	H. C. Fisher	20,501	Dec. 29	57	1725
Tea	Ceylon Planters Tea Company	19,353	Apr. 14	55	145
Tea	Ceylon Planters Tea Company	19,481	May 12	55	720
Tea	Ceylon Planters Tea Company	19,482	May 12	55	720
Tea	Ceylon Planters Tea Company	19,483	May 12	55	720
Tea. China and Japan	T. J. Haywood	19,824	June 30	55	1658
Tea. Chinese	E. A. Zatarain	19,913	July 21	56	266
Tea, coffee, and cocoa	Densham & Sons	20,413	Dec. 1	57	1136
Tea. Formosa oolong	Hewlett & Lee	19,983	Aug. 4	56	532
Tea. Formosa oolong	Hewlett & Lee	19,984	Aug. 4	56	532
Tea. Japan	A. Ethridge & Co.	18,885	Jan. 20	54	270
Tea. Mixed	W. Wilke	19,352	Apr. 14	55	145
Teeth. Artificial	H. D. Justi	19,022	Feb. 17	54	821
Teething and soothing powders	G. Parry	20,026	Aug. 11	56	666
Tennis-rackets	Wright & Ditson	19,186	Mar. 17	54	1422
Thrashing-machines. Dust-conveyer for	W. S. Miller	19,619	June 2	55	1146
Thread. Cotton	C. G. Hubert	19,700	June 16	55	1104
Thread. Linen	Marshall & Company	19,358	Apr. 14	55	145
Thread. Linen	Marshall & Company	19,359	Apr. 14	55	145
Thread. Linen	Marshall & Company	19,383	Apr. 21	55	292
Thread. Linen	Marshall and Company	20,061	Aug. 18	56	808
Thread. Shoe and linen	Marshall & Company	19,523	May 19	55	871
Thread. Spool	J. Chadwick & Bro.	19,290	Apr. 7	55	3
Thread. Spool	J. Chadwick & Bro.	19,291	Apr. 7	55	3
Tickings	J. Farnum & Co.	20,007	Aug. 11	56	666
Tin andterne plates	Birchgrove Steel Company	18,972	Feb. 10	54	666
Tin andterne plates	Birchgrove Steel Company	18,986	Feb. 10	54	667
Tin andterne plates	R. B. Byass & Co.	19,767	June 30	55	1656
Tin andterne plates	R. Crooks & Co.	18,833	Jan. 13	54	142
Tin andterne plates	R. Crooks & Co.	18,834	Jan. 13	54	142
Tin andterne plates	Gummev, Sperring & Co.	18,864	Jan. 20	54	270
Tin andterne plates	Gummev, Sperring & Co.	18,902	Jan. 27	54	394
Tin andterne plates	Mansel Tinsplate Co.	19,775	June 30	55	1656
Tin andterne plates	Merchant & Co.	20,247	Nov. 3	57	550
Tin andterne plates	Merchant & Co.	20,288	Nov. 3	57	550
Tin andterne plates	Merchant & Co.	20,376	Nov. 17	57	850
Tin andterne plates	C. S. Mersick & Co.	20,289	Nov. 3	57	550
Tin andterne plates	J. D. Thomas & Co.	19,909	July 21	56	266
Tin andterne plate	United States Iron and Tin Plate Manufacturing Company.	20,495	Dec. 22	57	1600
Tin andterne plates	J. Williams & Co.	19,230	Mar. 24	54	1566
Tin andterne plates and black plates of Bessemer steel	A. Baldwin & Company	18,966	Feb. 10	54	666
Tin, phosphor-bronze, and manganese-bronze. Phosphor	M. R. Isaacs	20,476	Dec. 22	57	1600
Tin-plate in sheets	Beaufort Tin Plate Company	19,715	June 16	55	1404
Tin-plate in sheets	Beaufort Tin Plate Company	19,716	June 16	55	1404
Tin-plate in sheets	Cwmfelin Tinsplate Company	19,015	Feb. 10	54	667
Tin-plate in sheets	D. Edwards & Co.	18,992	Feb. 10	54	667
Tin-plate in sheets	D. Edwards & Co.	19,004	Feb. 10	54	667
Tin-plate in sheets	D. Edwards & Co.	19,005	Feb. 10	54	667
Tin-plate in sheets	D. Edwards & Co.	19,006	Feb. 10	54	667
Tin-plate in sheets	D. Edwards & Co.	19,007	Feb. 10	54	667
Tin-plate in sheets	D. Edwards & Co.	19,008	Feb. 10	54	667
Tin-plate in sheets	Port Talbot Tinsplate Company	18,999	Feb. 10	54	667
Tin-plate in sheets	Port Talbot Tinsplate Company	19,000	Feb. 10	54	667
Tin-plate in sheets	Port Talbot Tinsplate Company	19,057	Feb. 17	54	822
Tin-plate in sheets	R. Rosser, Son & Co.	18,995	Feb. 10	54	667
Tin-plate in sheets	D. Whitehouse	19,001	Feb. 10	54	667
Tin-plate in sheets	D. Whitehouse	19,002	Feb. 10	54	667
Tin-plate in sheets	D. Whitehouse	19,003	Feb. 10	54	667
Tin plates	Amman Iron Co.	19,446	May 12	55	719
Tin plates	Amman Iron Co.	19,447	May 12	55	719
Tin plates	Amman Iron Co.	19,448	May 12	55	719
Tin plates	E. Boughton & Company	19,831	June 30	55	1658
Tin plates	E. Boughton & Company	19,832	June 30	55	1658
Tin plates	E. Boughton & Company	19,833	June 30	55	1658
Tin plates	E. Boughton & Company	19,834	June 30	55	1658
Tin plates	Cambria Tinsplate Company	19,683	June 9	55	1280
Tin plates	Cambria Tinsplate Company	19,684	June 9	55	1280

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Tin plates	T. B. Coddington & Co.	19,450	May 12	55	719
Tin plates	T. B. Coddington & Co.	19,451	May 12	55	719
Tin plates	Copper Miners Tinplate Company ..	19,246	Mar. 31	54	1717
Tin plates	Cwmfelin Tinplate Company ..	19,014	Feb. 10	54	667
Tin plates	Fairwood Tin-Plate Company ..	19,917	July 21	56	266
Tin plates	Fairwood Tin-Plate Company ..	19,920	July 21	56	266
Tin plates	Grovesend Tin Plate Company ..	19,614	June 2	55	1146
Tin plates	Grovesend Tin Plate Company ..	19,615	June 2	55	1146
Tin plates	Grovesend Tin Plate Company ..	19,616	June 2	55	1146
Tin plates	Grovesend Tin Plate Company ..	19,837	July 7	56	2
Tin plates	Knight & Crowther ..	18,979	Feb. 10	54	667
Tin plates	Leach, Flower & Company ..	19,617	June 2	55	1146
Tin plates	Leach, Flower & Company ..	19,618	June 2	55	1146
Tin plates	Leach, Flower & Company ..	19,928	July 28	56	402
Tin plates	H. Nash & Co.	19,859	July 7	56	2
Tin plates	Phillips, Nunes & Co.	18,981	Feb. 10	54	667
Tin plates	Phillips, Nunes & Co.	19,455	May 12	55	719
Tin plates	Phillips, Nunes & Co.	19,456	May 12	55	719
Tin plates	Phillips, Nunes & Co.	19,457	May 12	55	719
Tin plates	Phillips, Nunes & Co.	19,458	May 12	55	719
Tin plates	Phillips, Nunes & Co.	19,661	June 2	55	1148
Tin plates	Pontypool Iron and Tinplate Com- pany.	19,250	Mar. 31	54	1717
Tin plates	Pontypool Iron and Tinplate Com- pany.	19,251	Mar. 31	54	1717
Tin plates	R. Rosser, Son & Co.	18,994	Feb. 10	54	667
Tin plates	Tello Tin-Plate Co.	19,804	June 30	55	1657
Tin plates	Tello Tin-Plate Co.	19,805	June 30	55	1657
Tin plates	Tello Tin-Plate Co.	19,806	June 30	55	1657
Tin plates	Webb, Shakspeare & Williams ..	18,975	Feb. 10	54	666
Tin plates	Webb, Shakspeare & Williams ..	18,987	Feb. 10	54	667
Tin plates	Webb, Shakspeare & Williams ..	18,988	Feb. 10	54	667
Tin plates	Webb, Shakspeare & Williams ..	18,989	Feb. 10	54	667
Tin plates	Webb, Shakspeare & Williams ..	18,990	Feb. 10	54	667
Tin plates	Webb, Shakspeare & Williams ..	18,991	Feb. 10	54	667
Tin plates	Webb, Shakspeare & Williams ..	19,193	Mar. 17	54	1422
Tin plates and roofing-tin	W. Gilbertson & Company ..	20,201	Oct. 6	57	2
Tin plates and terne plates	Copper Miners Tinplate Company ..	19,245	Mar. 31	54	1717
Tin plates and terne plates	Pontypool Iron and Tinplate Com- pany.	19,248	Mar. 31	54	1717
Tin plates and terne plates	Pontypool Iron and Tinplate Com- pany.	19,249	Mar. 31	54	1717
Tin plates or roofing-tin	W. Gilbertson & Company ..	19,914	July 21	56	266
Tin plates or roofing-tin	W. Gilbertson & Company ..	19,915	July 21	56	266
Tin plates, terne plates, and black plates	A. Baldwin & Company ..	19,089	Feb. 24	54	964
Tin plates, terne plates, and black plates of Siemens steel	A. Baldwin & Company ..	19,175	Mar. 17	54	1422
Tin plates, terne plates, and tin taggers	Old Castle Iron and Tinplate Com- pany.	19,025	Feb. 17	54	821
Tin plates, terne plates, and tin taggers	Old Castle Iron and Tinplate Com- pany.	19,026	Feb. 17	54	821
Tin plates, terne plates, and tin taggers	Old Castle Iron and Tinplate Com- pany.	19,027	Feb. 17	54	821
Tin plates, terne plates, and tin taggers	Old Castle Iron and Tinplate Com- pany.	19,028	Feb. 17	54	821
Tin plates, terne plates, and tin taggers	Old Castle Iron and Tinplate Com- pany.	19,029	Feb. 17	54	821
Tin plates, terne plates, and tin taggers	Old Castle Iron and Tinplate Com- pany.	19,247	Mar. 31	54	1717
Tin, terne, and black plates and taggers, and Canada plates	Gwendraeth Tin Plate Company	19,299	Apr. 7	55	4
Tin, terne, and black plates and taggers, and Canada plates	Gwendraeth Tin Plate Company	19,300	Apr. 7	55	4
Tin, terne, and black plates and taggers, and Canada plates	Gwendraeth Tin Plate Company	19,301	Apr. 7	55	4
Tin, terne, and black plates and taggers, and Canada plates	Gwendraeth Tin Plate Company	19,302	Apr. 7	55	4
Tin, terne, and black sheets, plates and taggers, and Canada sheets and plates	Stephen Thompson & Company ..	20,293	Nov. 3	57	350
Tin, terne, zinc, and black plates	Redbrook Tinplate Company ..	19,303	Apr. 7	55	4
Tin, terne, zinc, and black plates	Redbrook Tinplate Company ..	19,304	Apr. 7	55	4
Tin, terne, zinc, and black plates	Redbrook Tinplate Company ..	19,305	Apr. 7	55	4
Tobacco and cigarettes. Cut	P. Rabell ..	20,437	Dec. 1	57	1136
Tobacco and cigars	Berriman Brothers ..	19,364	Apr. 21	55	291
Tobacco and snuff	G. W. Gail & Ax.	19,969	Aug. 4	56	532
Tobacco and snuff	G. W. Gail & Ax.	19,982	Aug. 4	56	532
Tobacco. Chewing and smoking	Spaulding & Merrick ..	20,351	Nov. 10	57	698
Tobacco, cigars, and cigarettes	B. F. Hanes ..	20,348	Nov. 10	57	699
Tobacco. Leaf	F. Garcia, Bro. & Co.	19,430	May 5	55	578
Tobacco. Leaf	G. Salomon & Bros.	20,352	Nov. 10	57	699
Tobacco. Manufactured	A. Beck & Company ..	18,797	Jan. 6	54	3
Tobacco. Plug	Payne & Jackson ..	19,528	May 19	55	871
Tobacco. Plug-cut smoking	Marburg Brothers ..	20,002	Aug. 11	56	666
Tobacco. Smoking	A. Beck & Company ..	18,883	Jan. 20	54	270
Tobacco. Smoking	W. H. Suow ..	19,692	June 9	55	1280
Toilet articles and preparations. Various	V. Klotz ..	20,117	Sept. 8	56	1208
Toilet powders	T. P. Heidt ..	19,319	Apr. 14	55	144
Toilet preparation for the skin	Davis Chemical Co.	20,126	Sept. 15	56	1340
Toilet preparation for the skin. Liquid	Chiles & Co.	20,412	Dec. 1	57	1136
Toilet preparations, including soap, cream, and powder	L. and F. B. Wilbert ..	19,956	Aug. 4	56	532
Toilet preparations. Perfumed	Smith, Kline & French Company ..	19,386	Apr. 21	55	292
Toilet preparations. Perfumed	Smith, Kline & French Company ..	19,387	Apr. 21	55	292
Toilet preparations. Perfumed	Smith, Kline & French Company ..	19,388	Apr. 21	55	292
Toilet washing-powder	F. S. Fairchild ..	19,420	May 5	55	578
Tonic	M. Blanchon ..	19,533	May 19	55	871
Tonic	F. E. Matthews ..	20,453	Dec. 8	57	1284
Tonic and blood-purifier and remedy for diseases of women	R. C. Larrabee & Co.	20,387	Nov. 17	57	850
Tonic for the nerves, blood, and brain	Ironite Co.	20,211	Oct. 13	57	128

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Title.	Name.	No.	Date.	Official Gazette.	
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Tonic, liniment, cough-sirup, pills, mineral bath, and hair restorative.	Wolfe Chemical Company	20,197	Oct. 6	57	2
Tonics.	F. M. Clements	19,766	June 23	55	1534
Tonics, cough and asthma cure, and liniment.	G. Hahn	19,631	June 2	55	1147
Tooth-ache drops, liniment, and cough-sirup	W. L. Dodge	20,187	Oct. 6	57	2
Tooth-paste	W. H. Hall	19,750	June 23	55	1534
Tooth-powder	E. C. Boyden	20,282	Nov. 3	57	550
Topical remedy	A. I. Babendreier	19,253	Mar. 31	54	1717
Towels. Sanitary.	Southall Bros. & Barclay	20,520	Dec. 29	57	1726
Towels. Sanitary.	Southall Bros. & Barclay	20,521	Dec. 29	57	1726
Toy games in boxes	J. H. Singer	19,742	June 23	55	1534
Toy torpedoes	Klueber Manufacturing Co	19,223	Mar. 24	54	1566
Toy torpedoes	Klueber Manufacturing Co	20,107	Sept. 8	56	1208
Toys	Block & Schwerin	20,355	Nov. 10	57	699
Toys known as talking-boards.	Kennard Novelty Company	18,919	Feb. 3	54	510
Tracing-cloth	Ritchie & Eason	19,051	Feb. 17	54	822
Troches for throat diseases	Dock & Robbins	19,542	May 19	55	871
Trousers	Klee & Falk	19,357	Apr. 14	55	145
Trousers and overalls	Wear & Boogher Dry Goods Company.	20,369	Nov. 10	57	699
Trusses	G. V. House, Jr.	19,971	Aug. 4	56	532
Turpentine.	Arkoll & Douglas	20,032	Aug. 18	56	808
Twine. Cotton	W. J. Hooper	18,847	Jan. 13	54	142
Twines, lines, cords, rope, and thread.	Travers Bros.	19,150	Mar. 10	54	1270
Type-writer ribbons.	J. Underwood & Co	19,133	Mar. 3	54	1118
Type-writers. Ribbons and carbon and linen papers for	Wyckoff, Seamans & Benedict	19,462	May 12	55	719
Type-writers. Ribbons for	J. Underwood & Co.	19,134	Mar. 3	54	1118
Umbrellas and parasols. Tight-folding	Follmer, Clogg & Co.	19,106	Mar. 3	54	1117
Underwear	A. Bridgman Company	20,380	Nov. 17	57	850
Underwear	L. Maier	19,489	May 12	55	720
Underwear and hosiery	Dunham, Buckley & Co.	19,138	Mar. 3	54	1118
Underwear and jackets	Beach Manufacturing Company	20,141	Sept. 15	56	1340
Vanilla. Crystallized flavoring simulating	G. H. Lowell	19,487	May 12	55	720
Varnish-gums	W. H. Scheel	19,158	Mar. 10	54	1270
Varnishes	American Varnish Company	20,262	Oct. 27	57	416
Varnishes, japans, oil-finish, and bronzing-liquid	Mayer & Loewenstein	19,185	Mar. 17	54	1422
Velocipedes	Humber & Company	20,325	Nov. 3	57	551
Velocipedes	Raleigh Cycle Company	19,881	July 14	56	146
Velocipedes and parts thereof.	Hillman, Herbert & Cooper	19,858	July 7	56	2
Vermicelli and noodles	H. F. Thumhorst	19,864	July 7	56	2
Veterinary remedies	J. Barton	20,451	Dec. 8	57	1284
Veterinary remedies.	W. D. Harnist	18,928	Feb. 3	54	511
Veterinary remedies.	J. E. Jayne	19,120	Mar. 3	54	1118
Veterinary remedies	J. F. Reid and J. H. Ulrich	20,454	Dec. 8	57	1284
Veterinary remedies	J. F. Reid and J. H. Ulrich	20,455	Dec. 8	57	1284
Wagon-skeins. Wrought-steel	Sandage Steel Skein Company	20,389	Nov. 17	57	850
Wagons for milkmen, bakers, &c. Low-down	Parsons Low-Down Wagon Company	20,179	Sept. 29	56	1568
Wall-plaster.	International Rock Plaster Company.	19,402	Apr. 28	55	436
Wash or lotion	H. D. Umbstaetter.	20,361	Nov. 10	57	699
Wash or lotion	H. D. Umbstaetter.	20,362	Nov. 10	57	699
Washing compound	Pacific Soap & Chemical Co	20,234	Oct. 20	57	278
Washing-machines	Bowman & Turner	19,550	May 19	55	871
Washing-machines	J. J. & R. H. Vail	20,514	Dec. 29	57	1726
Watch-cases.	Brooklyn Watch Case Company	19,203	Mar. 24	54	1566
Watch-cases.	Crescent Watch Case Company	20,331	Nov. 10	57	698
Watch-cases.	Crescent Watch Case Company	20,332	Nov. 10	57	698
Watch-cases.	Crescent Watch Case Company	20,351	Nov. 17	57	850
Watch-cases.	Kenosha Watch Case Company	20,266	Oct. 27	57	416
Watch cases and movements	B. L. Strasburger & Co	19,046	Feb. 17	54	822
Watch cases and movements	B. L. Strasburger & Co	19,047	Feb. 17	54	822
Watch-movements	Waterbury Watch Company.	20,367	Nov. 10	57	699
Watch movements and cases	Schild Frères & Co.	19,405	Apr. 28	55	436
Watch movements and cases	B. L. Strasburger & Co	19,044	Feb. 17	54	822
Watch movements and cases	B. L. Strasburger & Co	19,045	Feb. 17	54	822
Watch movements and cases	B. L. Strasburger & Co	19,079	Feb. 24	54	964
Watches	J. Racine & Co	18,841	Jan. 13	54	142
Watches	J. Racine & Co	18,842	Jan. 13	54	142
Water-proof cloths and other textile or fibrous materials.	Aktiebolaget Thetis	19,883	July 14	56	146
Water-proof fabrics and garments.	Porous Waterproofing Co	19,191	Mar. 17	54	1422
Whalebone. Substitute for	Amber Bone Manufacturing Company.	19,440	May 5	55	578
Wheat. Rolled	W. A. Pettijohn	19,398	Apr. 21	55	292
Whips.	A. C. Barnes & Co	18,897	Jan. 27	54	394
Whips.	A. C. Barnes & Co	18,898	Jan. 27	54	394
Whips and whip-lashes	American Whip Company	19,686	June 9	55	1280
Whips. Covered	Massasoit Whip Company	20,231	Oct. 20	57	278
Whiskies and alcoholic liquors	H. Large, Jr., and F. C. Renziehausen.	19,997	Aug. 11	56	666
Whiskies in bulk	L. Weis & Co	20,099	Sept. 1	56	1064
Whiskies in bulk	L. Weis & Co	20,100	Sept. 1	56	1064
Whisky	J. & G. Butler & Co.	20,283	Nov. 3	57	550
Whisky	J. & G. Butler & Co.	20,385	Nov. 17	57	850
Whisky	H. Corby	18,835	Jan. 13	54	142
Whisky	Edel Bros.	19,166	Mar. 10	54	1270
Whisky	A. S. De Lissa	20,414	Dec. 1	57	1136
Whisky	Devereaux & Meserve	20,457	Dec. 8	57	1284
Whisky	G. S. Fleming	18,952	Feb. 10	54	666
Whisky	C. Goldsborough	18,837	Jan. 13	54	142
Whisky	C. H. Graves & Sons.	19,994	Aug. 11	56	666
Whisky	J. J. Hayes	19,107	Mar. 3	54	1117
Whisky	W. A. Hentz & Co.	19,571	May 26	55	1002
Whisky	W. S. Hunne & Co.	19,906	July 21	56	266
Whisky	Kinahan & Company.	19,444	May 5	55	578

Alphabetical list of trade-marks—Continued.

Title.	Name.	No.	Date.	Official Gazette.	
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Whisky	Kinahan & Company	19,445	May 5	55	578
Whisky	M. Klein	19,527	May 19	55	871
Whisky	P. M. Lagoni	19,434	May 5	55	578
Whisky	Lang, Bernheimer & Co.	19,996	Aug. 11	56	666
Whisky	D. Lieber	20,108	Sept. 8	56	1208
Whisky	R. Monarch	20,080	Aug. 25	56	932
Whisky	J. E. Pepper & Co.	19,075	Feb. 24	54	964
Whisky	J. E. Pepper & Co.	19,076	Feb. 24	54	964
Whisky	J. E. Pepper & Co.	19,705	June 16	55	1404
Whisky	T. E. Pepper	20,205	Oct. 6	57	2
Whisky	A. Rassiner & Co.	19,437	May 5	55	578
Whisky	Rheinstrom Bros.	18,983	Feb. 10	54	667
Whisky	C. H. Ritter & Co.	19,898	July 21	56	266
Whisky	Shea, Bocqueraz & Co.	20,076	Aug. 25	56	932
Whisky	Standard Distilling Co.	19,171	Mar. 10	54	1270
Whisky	Stanton & Company	18,946	Feb. 3	54	511
Whisky	S. Streit & Co.	20,206	Oct. 13	57	128
Whisky	J. B. Thompson	20,035	Aug. 18	56	808
Whisky	J. B. Thompson	20,036	Aug. 18	56	808
Whisky	Ulman, Boykin & Co.	20,102	Sept. 1	56	1064
Whisky	Ulman, Boykin & Co.	20,104	Sept. 1	56	1064
Whisky	P. Van Schaack & Sons	18,961	Feb. 10	54	666
Whisky	Vignes & Pepin	19,935	July 28	56	402
Whisky	H. Walker & Sons	19,652	June 2	55	1147
Whisky	H. Walker & Sons	19,653	June 2	55	1147
Whisky	E. Walters	19,085	Feb. 24	54	964
Whisky and brandy	L. Reuther	18,811	Jan. 6	54	3
Whisky. Bourbon	W. Bergenthal Company	20,169	Sept. 22	56	1452
Whisky. Bourbon	W. Bergenthal Company	20,170	Sept. 22	56	1452
Whisky. Rye	I. Monheimer	20,059	Aug. 18	56	808
Whisky. Rye and Bourbon	W. Bergenthal Company	20,168	Sept. 22	56	1452
Whisky. Rye and Bourbon	J. & A. Freiberg	20,244	Oct. 20	57	278
Whitening compound for use upon equipments	R. R. Cassard and G. W. Neal	19,987	Aug. 4	56	532
Windmills. Rotary	Pech Manufacturing Company	20,085	Aug. 25	56	932
Wine. Medicated	P. Lebeault & Co.	19,162	Mar. 10	54	1270
Wine. Medicated	P. Lebeault & Co.	19,163	Mar. 10	54	1270
Wine. Medicated	P. Lebeault & Co.	19,164	Mar. 10	54	1270
Wines	Barkhausen & Co.	18,830	Jan. 13	54	142
Wines	C. Marey & Liger-Belair	19,577	May 26	55	1002
Wines and alcoholic liquors	H. S. Woodbury	19,261	Mar. 31	54	1718
Wines and liquors	Metzger & Seligmann	18,955	Feb. 10	54	666
Wines and liquors	S. Wolf & Sons	19,645	June 2	55	1117
Wire for stitching-machines	J. L. Morrison	19,125	Mar. 3	54	1118
Wire for use in electrical work. Metallic	Electrical Supply Company	19,194	Mar. 17	54	1422
Wire-stitching machines	J. L. Morrison	19,124	Mar. 3	54	1118
Wood. Kindling	J. C. Keeneth & Co.	19,573	May 26	55	1002
Wood surfaces. Filler for	Glidden & Joy Varnish Company	20,354	Nov. 10	57	699
Wood-workers' tools and machines	Stanley Rule and Level Company	18,792	Jan. 6	54	3
Wool prepared for the market	Catton, Bell & Co.	19,452	May 12	55	719
Worsted and muslin garments, underwear, and knit goods	Russ, Eveleth & Ingalls	19,224	Mar. 24	54	1566
Woven fabrics, including cotton, silk, and wool goods	Botany Worsted Mills	20,394	Nov. 24	57	1006
Woven fabrics, including cotton, wool, and silk goods	Botany Worsted Mills	20,395	Nov. 24	57	1006
Woven wool fabrics	Tilton Mills	18,813	Jan. 6	54	3
Wrenches	Trimont Manufacturing Company	19,637	June 2	55	1147
Wrenches, screw-drivers, tack-pullers, and similar tools	Capitol Manufacturing Company	19,063	Feb. 24	54	964
Writing-tablets and envelopes	W. H. Hasbrouck	20,298	Nov. 3	57	550
Yarns. Wool, worsted, and cotton	Nonantum Worsted Company	19,385	Apr. 21	55	292
Yarns. Woolen, worsted, and cotton	Nonantum Worsted Company	19,544	May 19	55	871
Yarns. Worsted	Milwaukee Worsted Mills	19,961	Aug. 4	56	532
Yeast cakes	Henninger Bros.	18,968	Feb. 10	54	666
Yeast. Compressed	A. Woolner, Jr.	19,332	Apr. 14	55	144
Yeast. Dry hop	J. B. Cranston	19,682	June 9	55	1200

ALPHABETICAL LIST OF LABELS.

Title.	Name.	No.	Date.	Official Gazette.	
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"A Superior Dressing." (For leather)	M. T. Maguire	6,509	Apr. 28	55	436
"Barker's Improved Chemical & Vegetable Horse, Cattle, & Poultry Powder."	Barker, Moore & Mein Medicine Company.	6,429	Feb. 3	54	511
"Blended Lager Beer"	A. M. Kickerby	6,439	Feb. 10	54	668
"Bligh's Chill Mixture"	J. D. Bligh	6,508	Apr. 28	55	436
"Botanic Kidney Cure"	J. F. Seaman	6,481	Mar. 31	54	1718
"Buttered Baking Powder"	A. H. Peloubet and J. L. Tobin	6,450	Feb. 17	54	822
"Buttermilk Toilet Soap"	L. Wilbert	6,415	Jan. 13	54	142
"Cherokee Blood and Liver Renovator"	W. Brown	6,538	May 26	55	1003
"Clos de Vongot." (For wine)	C. Marey & Liger-Belair	6,536	May 26	55	1003
"Colain." (For medicine)	E. W. Determann	6,531	May 19	55	872
"Compound Rheumatic Oil"	H. M. Jewett	6,435	Feb. 3	54	511
"Compound Tolu and Lungwort Cough Syrup"	W. Price	6,449	Feb. 17	54	822
"Conday's Export Extract of Wild Cherry"	P. Conday	6,458	Feb. 17	54	822
"Cresol Catarrh Cure"	J. M. Kemlo	6,500	Apr. 14	55	145
"Cresylic Vapor." (For medicine)	J. M. Kemlo	6,499	Apr. 14	55	145
"Crocker's Magical Stomach Powders"	J. D. Crocker	6,524	May 12	55	720
"Crystalline Spring Water"	W. W. Hubbell	6,498	Apr. 14	55	145
"Culbert & Taylor Agents for Martini & Rossi." (For vermouth.)	Culbert & Taylor	6,430	Feb. 3	54	511
"Dahl's Knäckebröd"	H. A. C. Dahl	6,525	May 12	55	720
"De Witt's Carbolyzed Witch Hazel Salve"	E. C. De Witt	6,518	May 5	55	578
"De Witt's Cough and Consumption Cure"	E. C. De Witt	6,516	Apr. 28	55	436
"De Witt's Sarsaparilla"	E. C. De Witt	6,514	Apr. 28	55	436
"De Witt's Stomach Bitters"	E. C. De Witt	6,515	Apr. 28	55	436
"Detchon's Compound Extract of Gravel Plant"	I. A. Detchon	6,418	Jan. 13	54	142
"Diamond White Grapes"	Diamond White Grape Company	6,468	Mar. 3	54	1118
"Diffusible Tonic"	Diffusible Tonic Company	6,434	Feb. 3	54	511
"Directions for using Cleverger's Hair Balsam"	Cleverger Hair Balsam Co.	6,472	Mar. 10	54	1270
"Dr. A. S. Davis' Balm"	Davis Manufacturing Company	6,488	Mar. 31	54	1718
"Dr. A. S. Davis' Liniment for Horses"	Davis Manufacturing Company	6,489	Mar. 31	54	1718
"Dr. Groves Anodyne for Infants"	J. D. Groves	6,474	Mar. 10	54	1270
"Dr. Hazen's Diphtheria Remedy"	E. Hazen and C. W. Chase	6,539	May 26	55	1003
"Dr. Julius Peters' Hygienic Tooth Powder, Jersey City"	J. Peters	6,520	May 5	55	578
"Dr. Peter's Kuriko." (For medicine)	P. Fahrney	6,493	Apr. 14	55	145
"Dr. Pierce's Delicious Flavoring Extracts, Natural Fruit Flavors"	Price Flavoring Extract Company	6,537	May 26	55	1003
"Dr. Warren's Insomnia Cure"	J. M. Murdoch	6,425	Jan. 27	54	394
"Drawing Board Mucilage"	C. M. Higgins	6,437	Feb. 10	54	668
"Dry Plug Pure Tobacco." (For chewing and smoking)	C. N. Frame	6,446	Feb. 10	54	668
"Dumestre & Heintz's Southern Ginger Tonic"	Dumestre & Heintz	6,528	May 12	55	720
"Edwards' Cherry and Tolu Compound"	F. C. Joslyn & Co.	6,427	Feb. 3	54	511
"Eldredge's Cough Remedy"	J. B. Eldredge & Co.	6,466	Mar. 3	54	1118
"Eskay's Scottish Queen Perfume"	Smith, Kline & French Company	6,506	Apr. 21	55	292
"Excellent Water-Proof Harness Composition"	W. R. Morris	6,530	May 19	55	872
"Fleming's Pure Rye"	G. S. Fleming	6,436	Feb. 10	54	668
"Florence County." (For plug-tobacco)	Florence Tobacco Manufacturing and Warehouse Company.	6,414	Jan. 13	54	142
"Forni's Alpen Kräuter." (For medicine)	P. Fahrney	6,492	Apr. 14	55	145
"Fredrick's Iron Tonic Capsules"	Iron Tonic Capsule Company	6,529	May 19	55	872
"Fruit Julep." (For medicine)	W. D. Harnist	6,409	Jan. 6	54	4
"G. L. McGreevy's Compound Tonic"	G. L. McGreevy	6,475	Mar. 17	54	1422
"Galer's Popular Magnesia Compound"	A. J. Galer	6,517	Apr. 28	55	436
"German Baking Powder"	Consolidated Coffee Company	6,507	Apr. 21	55	292
"Golden Colored Pure Rye Whisky"	I. Dannenberg	6,461	Feb. 24	54	964
"Golden Seal Compound." (For medicine)	American Herbal Medicine Company.	6,410	Jan. 13	54	142
"Granular Effervescent Bromo Lithia"	W. R. Warner	6,417	Jan. 13	54	142
"Greensboro Nurseries"	J. A. Young	6,442	Feb. 10	54	668
"Half and Half." (For alcoholic beverages)	A. M. Kickerby	6,404	Jan. 6	54	4
"Henry Ost's Prepared Castor Oil"	H. Ost	6,465	Mar. 3	54	1118
"Higspire." (For whisky)	C. Goldsborough	6,416	Jan. 13	54	142
"Home Made." (For muslin underwear)	Russ, Everleth & Ingalls	6,521	May 5	55	578
"Improved Chadwick Copying Book Pad"	E. R. Soliday	6,513	Apr. 28	55	436
"Improved Press Finished Hat"	H. H. Roelofs & Co.	6,534	May 26	55	1003
"Improved Pressed, Finished and Curled Hat"	H. H. Roelofs & Co.	6,533	May 26	55	1003
"Improved Pressed Hat"	H. H. Roelofs & Co.	6,535	May 26	55	1003
"Interchangeable Birthday Ring"	H. Huestis	6,510	Apr. 28	55	436
"Japanese Surfacing Lacquer"	Chicago Wood Finishing Company	6,422	Jan. 20	54	270
"Jelly of Roses." (For a toilet preparation)	A. J. Hoeny	6,441	Feb. 10	54	668
"Jelly Soap for Shampooing"	M. W. Denike	6,497	Apr. 14	55	145
"Jos. Fleming & Son." (For spirituous liquors)	G. S. Fleming	6,445	Feb. 10	54	668
"Kimmel's Combination Copying Book"	W. Kimmel	6,443	Feb. 10	54	668
"Litzenbergs Horse Liniment"	W. Litzenberg	6,459	Feb. 17	54	822
"Long's Breakfast Flour"	C. T. Long	6,438	Feb. 10	54	668
"Madame Seay's System of Cutting"	F. V. Seay	6,496	Apr. 14	55	145
"Magnetic Jack Straws"	E. I. Horsman	6,526	May 12	55	720
"Marienbad Obesity Pills"	Burwell & Lacey	6,479	Mar. 24	54	1566
"Marshall's Convertible Buggy, Case Saddle-Bags"	W. S. Marshall	6,491	Apr. 7	55	4

Alphabetical list of labels—Continued.

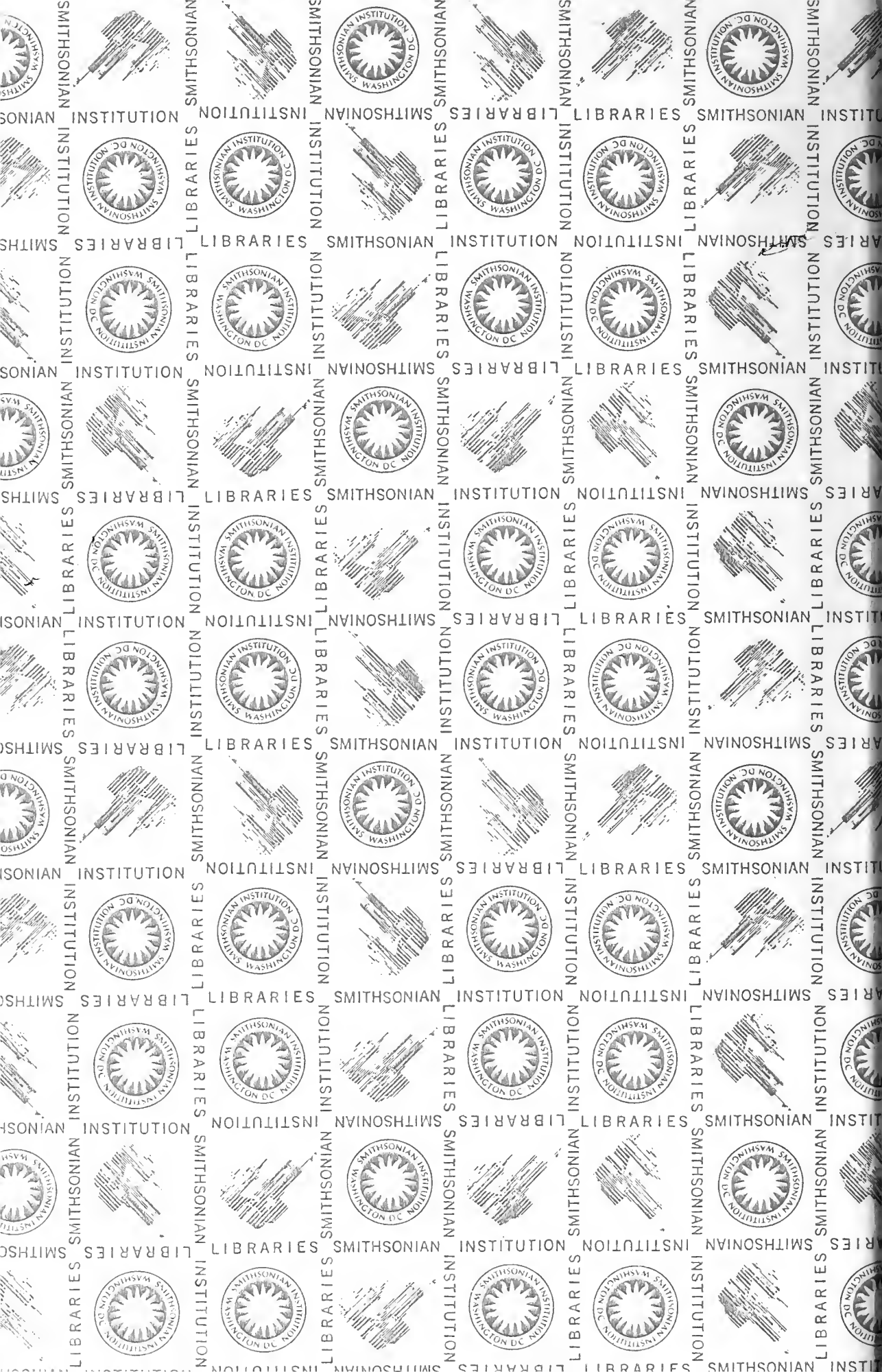
Title.	Name.	No.	Date.	Official Gazette.	
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"Medicated and free from all Impurities, for Shaving and Shampooing, Fragrant and Refreshing." (For soap.)	Arnica-carboline Co	6,452	Feb. 17	54	822
"Medicated Fragrant and Refreshing." (For soap.)	Arnica-carboline Co	6,453	Feb. 17	54	822
"Metal Polish"	J. C. Paul	6,423	Jan. 20	54	270
"Mineral and Vegetable Combination." (For burning purposes.)	C. W. Roeksby	6,454	Feb. 17	54	822
"Mixed Ale"	A. M. Rickerby	6,403	Jan. 6	54	4
"Mixed Beer"	A. M. Rickerby	6,440	Feb. 10	54	668
"Mixed Pickles"	Gedney Pickle Company	6,460	Feb. 17	54	822
"Mrs. Charlotte Bergman's Bacillus Destroyer and Lung Restorer."	C. Bergman	6,45	Feb. 17	54	822
"Mrs. Charlotte Bergman's Balsam"	C. Bergman	6,420	Jan. 20	54	270
"Mrs. Charlotte Bergman's Family Medicine"	C. Bergman	6,421	Jan. 20	54	270
"Mrs. Charlotte Bergman's Sore-Salve"	C. Bergman	6,419	Jan. 20	54	270
"Mrs. Webb's Magic Tea." (For a medicine)	M. E. Welch	6,495	Apr. 14	55	145
"National Pure Food Company"	National Pure Food Company	6,501	Apr. 14	55	145
"Nervine"	Bell Medicine Co	6,448	Feb. 17	54	822
"Non-Alcoholic Extract of Vanilla"	A. C. Howell	6,467	Mar. 3	54	1118
"Ointment"	A. Spannake	6,444	Feb. 10	54	668
"Pocket Make Up Box." (For the toilet)	E. Redlich	6,494	Apr. 14	55	145
"Quick Relief." (For medicine)	American Herbal Medicine Company	6,411	Jan. 13	54	142
"Quinine Tonic"	Quinine Tonic Co	6,522	May 12	55	720
"Quinine Whisky"	Quinine Whisky Co	6,523	May 12	55	720
"R. L. Tudor's Patent Leather and Enamelled Leather Softener."	R. L. Tudor	6,476	Mar. 17	54	1422
"Retsof Lump Rock Salt"	Retsof Mining Company	6,483	Mar. 31	54	1718
"Retsof Lump Salt"	Retsof Mining Company	6,482	Mar. 31	54	1718
"Retsof Pure Rock Salt"	Retsof Mining Company	6,484	Mar. 31	54	1718
"Retsof Pure Salt"	Retsof Mining Company	6,485	Mar. 31	54	1718
"Retsof Salt"	Retsof Mining Company	6,486	Mar. 31	54	1718
"Rinn's Cleansing Compound"	J. F. Rinn	6,478	Mar. 24	54	1566
"Seamless Tube Rubber Hose"	Cleveland Rubber Company	6,480	Mar. 24	54	1566
"Self-opener." (For satchels)	Mayer & Ruehlmann	6,451	Feb. 17	54	822
"Severin's Liquid Drawing Ink Eraser"	N. Severin	6,502	Apr. 14	55	145
"Severin's Liquid Pencil Eraser"	N. Severin	6,503	Apr. 14	55	145
"South Carolina Choice." (For plug-tobacco)	Florence Tobacco Manufacturing and Warehouse Company	6,413	Jan. 13	54	142
"Stearns' Ammoniated Food for House Plants"	F. H. Stearns	6,424	Jan. 27	54	394
"Stern's Cream." (For throat and lung diseases)	M. H. Stern	6,432	Feb. 3	54	511
"Stern's Oil." (For neuralgia and rheumatism)	M. H. Stern	6,431	Feb. 3	54	511
"Stern's Tonic"	M. H. Stern	6,433	Feb. 3	54	511
"Stretch's Penetrating Liniment"	D. E. Stretch	6,487	Mar. 31	54	1718
"Sugar-Corn Whiskey"	E. N. Monroe	6,511	Apr. 28	55	436
"Sundbets Salt." (For medical purposes)	A. Osterhelm & Co.	6,457	Feb. 17	54	822
"Sweet-Corn Whiskey"	E. N. Monroe	6,512	Apr. 28	55	436
"Syrup of Prunes." (For a medicine)	E. H. Bindley & Co.	6,473	Mar. 10	54	1270
"The Bartholomay Bavarian." (For lager-beer)	Bartholomay Brewery Company	6,406	Jan. 6	54	4
"The Bartholomay Bohemian." (For lager-beer)	Bartholomay Brewery Company	6,407	Jan. 6	54	4
"The Bartholomay Standard." (For lager-beer)	Bartholomay Brewery Company	6,408	Jan. 6	54	4
"The Brooklyn Sweeper"	Brooklyn Railway Supply Company	6,490	Apr. 7	55	4
"The Ceylon Planters' Tea Company"	Ceylon Planters Tea Company	6,527	May 12	55	720
"The Chicago Family Medicine Co"	Chicago Family Medicine Co	6,504	Apr. 14	55	145
"The Ironclad Gearless Motor"	Westinghouse Electric and Manufacturing Company	6,505	Apr. 21	55	292
"The Oil that Lubricates Best"	Vacuum Oil Company	6,464	Feb. 24	54	964
"The Oil that Lubricates Most"	Vacuum Oil Company	6,463	Feb. 24	54	964
"The Oil which Lubricates Best"	Vacuum Oil Company	6,470	Mar. 3	54	1118
"The Oil which Lubricates Most"	Vacuum Oil Company	6,471	Mar. 3	54	1118
"The Oils that Lubricate Most"	Vacuum Oil Company	6,469	Mar. 3	54	1118
"The Old Essence Man's Extract of Lemon"	J. T. Gilbert	6,477	Mar. 24	54	1566
"The Perfect Fire Kindler"	E. R. Faulkner	6,462	Feb. 24	54	964
"The Ripley Brome Lithia Natural Spring Water"	Ripley Natural Gas and Oil Company	6,532	May 19	55	872
"The Soden Mineral Pastilles"	Soden Mineral Springs Company	6,405	Jan. 6	54	4
"Thorn's Vegetable Cough Cure"	Thorn's Medicine Co	6,447	Feb. 10	54	668
"Wadleigh's Kidney Remedy"	F. R. Wadleigh	6,455	Feb. 17	54	822
"White Pine and Mullein Cough Remedy"	R. L. Eves	6,412	Jan. 13	54	142
"White Pine Pectoral"	H. P. Marshall	6,428	Feb. 3	54	511
"Wholesale Drapers"	Schloss Bros. & Co.	6,519	May 5	55	578
"Winter's Life Elixir Tonic and Antiperiodic"	J. B. Daniel	6,426	Feb. 3	54	511

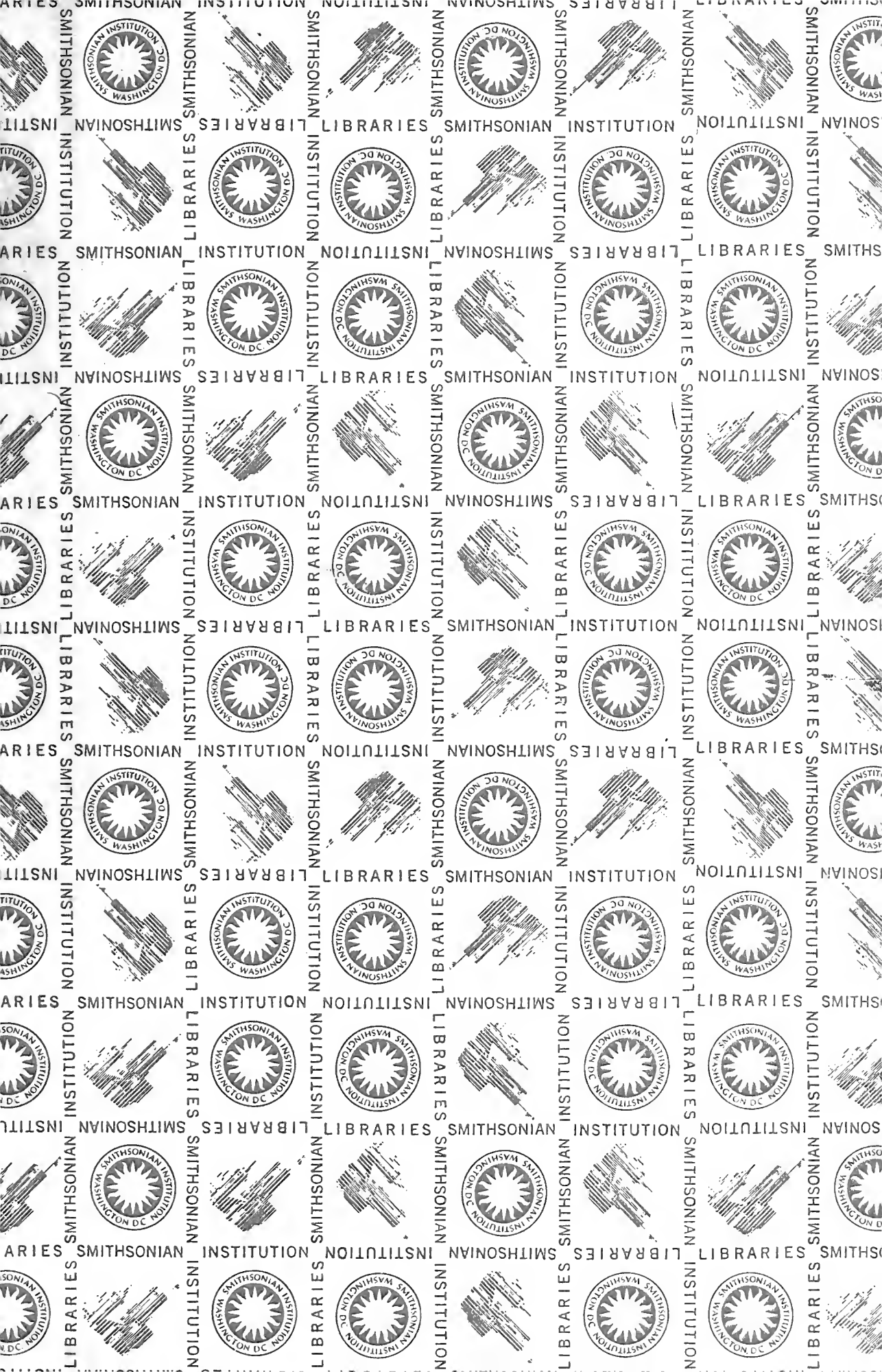
DISCLAIMERS.

Invention.	Patentee.	No. of patent.	Date of patent.	Disclaimer filed.	Official Gazette.	
					Vol.	Page.
Converting helical springs to straight bars.....	M. D. Loomis.....	437,703	Oct. 7, 1890	Apr. 20, 1891	55	436
Dry closets, &c.....	I. D. Smead.....	314,884	Mar. 31, 1885	Mar. 3, 1891	54	1270
Dry closets, &c.....	I. D. Smead.....	314,884	Mar. 31, 1885	Mar. 24, 1891	54	1718
Dry closets, &c.....	I. D. Smead.....	363,971	Mar. 31, 1885	Mar. 3, 1891	54	1270
Dry closets, &c.....	I. D. Smead.....	363,971	Mar. 31, 1885	Mar. 24, 1891	54	1718
Dry closets, &c.....	I. D. Smead.....	314,884	Mar. 31, 1885	Apr. 9, 1891	55	292
Dry closets, &c.....	I. D. Smead.....	314,884	Mar. 31, 1885	Apr. 11, 1891	55	292
Dry closets, &c.....	I. D. Smead.....	314,884	Mar. 31, 1886	Apr. 13, 1891	55	292
Dry closets, &c.....	I. D. Smead.....	314,884	Mar. 31, 1885	Apr. 20, 1891	55	436
Dry closets, &c.....	I. D. Smead.....	314,884	Mar. 31, 1885	May 21, 1891	55	1148
Dry closets.....	I. D. Smead.....	363,971	May 31, 1887	Apr. 9, 1891	55	292
Dry closets.....	I. D. Smead.....	363,971	May 31, 1887	Apr. 11, 1891	55	292
Dry closets.....	I. D. Smead.....	363,971	May 31, 1887	Apr. 13, 1891	55	292
Dry closets.....	I. D. Smead.....	363,971	May 31, 1887	Apr. 20, 1891	55	436
Dry closets.....	I. D. Smead.....	363,971	May 31, 1887	May 21, 1891	55	1148
Electrode for secondary batteries.....	J. B. Entz and W. A. Phillips.....	440,023	Nov. 4, 1890	July 16, 1891	56	402
Manufacture of colors or dye-stuffs.....	Horace Koechlin.....	253,721	Feb. 14, 1882	Nov. 11, 1891	57	850
Pump regulating-valves.....	J. H. Blessing.....	207,485	Aug. 27, 1878	Apr. 22, 1891	55	436
Rubber mat. (Design).....	G. Woffenden.....	11,208	May 27, 1879	Feb. 6, 1891	54	822
Secondary batteries.....	Charles F. Brush.....	337,299	Mar. 2, 1886	Oct. 12, 1891	57	278
Slicers.....	M. J. Page.....	441,440	Nov. 25, 1890	Mar. 30, 1891	55	4
Valve for pneumatic pipes or tubes.....	E. S. Boynton.....	401,680	Apr. 16, 1889	Jan. 21, 1891	54	511
Watch-cases.....	F. Mink.....	415,678	Nov. 19, 1889	Aug. 13, 1891	56	808

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